



# Fashion Technology

Today and Tomorrow



Nirupama Pundir

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## THE AUTHOR

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An expertise in the history and theory of fashion technology since the 19th century, she has published widely on the culture of dress, archaeological textiles and Indian fashion trends. She has been a regular contributor to reputed newspapers and leading periodicals and also edited a magazine on fashion and lifestyle for years. Currently she is researching on the role of digital technologies in fashion designing and merchandising.

# **FASHION TECHNOLOGY**

**—Today and Tomorrow**

**NIRUPAMA PUNDIR**



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## Preface

Oscar Wilde once famously said, 'Fashion is a form of ugliness so intolerable that we have to alter it every six months.' Whether the author's sarcasm is taken too literally or not is a matter of individual perspective; but Wilde certainly drove the nail into the head when he commented on the ever changing face of fashion, not just in terms of its, products, but its own evolution too.

Fashion technology today has metamorphosed into a career option which was once the prerogative of those who were bereft of other choices, to a lucrative position eyed by many. The purview of fashion has increased too, with everyone from a socialite to an adolescent being able to boast of owning 'designer label' outfits. No wonder then, that renowned labels like Chanel, Prada, Armani and many more others today have translated an elitist industry into a full fledged multi-billion dollar franchise, covering a wide range of classes and masses.

In India too, the nineties marked the beginning of a formal fashion industry. Today, the fashion enterprise here is a sector generating crores in revenues, is becoming more and more organised, and working on the lines of the set-up prevalent in the West. People like Ritu Kumar, Rohit Bal and Manish Malhotra have already made their marks as renowned pioneers of the designer fraternity, Ritu Beri has impressed the prestigious Paris Fashion week with her collections, and even upcoming designers like Sabyasachi Mukherjee are increasingly noggin the limelight.

But there is still a lot to be done yet in the Indian context of fashion. There is a need for greater and better planned organisational network between designers and clients, business has yet to achieve the expansion leave of the Western fashion scene, and a lot is still desired in terms of quality.

This book is an effort to familiarise the reader with the world fashion scenario. It recounts the initial years of the industry, its subsequent growth and development, and its present stature as a major economic avenue for numerous countries with an incisive analysis of the current situation, and a probing elucidation of the future prospects this sector promises to fulfil, the book also lays special emphasis on the Indian fashion front. It is hoped that, with a highly insightful look into the world of fashion, this book would serve to sate the curiosity of readers fascinated by fashion technology.

*Editor*

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## Introduction to Fashion Technology

The term "fashion" is frequently used as a synonym for glamour and style. In this sense, fashions are a sort of communal art, through which a culture examines its notions of beauty and goodness. Fashion doesn't limit itself to dressing but is an expression of the mood and taste of an individual. Fashion refers to change, which is inevitable. Mushrooming of fashion outlets supports the extensively increasing fashion market.

India which has always been a centre for the textile and garment trade is also growing into a centre of innovation in garment and accessory design. Fashion technology has a wide scope for choosing a career. Now the fashion industry has become so specialised that it encompasses a vast field of studies in design, concept management, design production management, quality control, planning, fabric design, printing, fashion accessory design, fashion merchandising, textile science, colour mixing, marketing and so on.

The primary areas of work in the fashion industry are market research, designing and manufacturing of garments and textiles. Fashion design is the most important area of work in fashion industry. Designing involves creating original designs after studying the changing trends of the market i.e. market research. It has various fields of specialisation like garments, footwear, jewellery and even

luggage. It is a challenging field as it requires the coordination of various jobs, in small concerns it is usually a one man show but in big organisations the jobs are specialised and allotted to different people. Manufacturing involves purchasing textiles and fabrics required for the design and making the garment according to the master pattern. Manufacturing process requires employment of a large number of trained personnel.

Fashion in India offers several opportunities for Indian fashion designers. Indian fashion industry is growing everyday. Indian fashion designers combine western trends with Indian touch, creating garments which are truly outstanding. Several fashion institutes like National Institute of Fashion Technology (NIFT), Indian Institute of Fashion Technology (IIFT) and Pearl Fashion Academy have been established where students learn to translate their creativity into dresses and fabric designs. The media plays an important role in the fashion boom and good coverage is provided to the fashion world and fashion events. Indian Fashion-based programmes on the electronic media are frequent. Indian fashion competing with the best in the world and have won worldwide praise.

#### **ART OF FASHION DESIGNING**

Fashion design is the applied art dedicated to the design of clothing and lifestyle accessories created within the cultural and social influences of a specific time. Fashion designers may work under their own name, or for another designer name or brand. Designer brands which have a 'name' as their brand such as Calvin Klein or Ralph Lauren are likely to be designed by a team of individual designers under the direction a designer director.

Fashion design differs from costume design due to its core product having a built in obsolescence usually of one to two seasons. A season is defined as either autumn/winter or spring/summer. Fashion design is generally

considered to have started in the 19th century with Charles Frederick Worth who was the first person that sewed his label into the garments that he created. While all articles of clothing from any time period are studied by academics as costume design, only clothing created after 1858 could be considered as fashion design.

### **Types of Fashion**

Some important types of fashion are:

#### ***Haute Couture***

The type of fashion design which predominated until the 1950s was "made-to-measure" or haute couture. A couture garment is made for an individual customer. Look and fit take priority over the cost of materials and the time it takes to make.

#### ***Mass Market***

These days the fashion industry relies more on mass market sales. This caters for a wide range of customers, producing ready-to-wear clothes in large quantities and standard sizes. Cheap materials, creatively used, produce affordable fashion.

#### ***Ready-to-Wear***

Ready-to-wear clothes are a cross between couture and mass market. They are not made for individual customers, but great care is taken in the choice and cut of the fabric. Clothes are made in small quantities to guarantee exclusivity, so they are rather costly.

### **Designing a Collection**

#### ***Planning a Collection***

Every collection is very carefully researched and planned so that all the items in it complement each other, and have

the particular fashion look which the company is known for.

### *Predicting Trends*

One of the hardest skills a fashion designer has to master is predicting future trends. To do this, they look at what the fashion directions have been in previous seasons, keep an eye on what others in the fashion business are doing, and read fashion forecasting magazines. They also rely on knowledge of their own customers to see which styles succeeded and which were less popular in past seasons. Perhaps most importantly, designers use their imaginations to come up with new ideas. They often choose a theme to provide inspiration.

### *Choosing a Theme*

The theme of a collection can be a period in history, a foreign place, a range of colours, a type of fabric—anything which has a strong visual impact.

### *Designing a Garment*

#### *The Design*

Different designers work in different ways. Some sketch their ideas on paper, others drape fabric on a dress stand, pinning, folding and tucking it until the idea for a garment emerges. A third method is to adapt their own patterns from previous seasons.

#### *Making a Toile*

After making a rough paper pattern, or life-size 2-D plan, of the garment, a sample machinist then makes a trial version of the garment from plain-coloured calico. The toile is put on to a dress stand (or a model) to see how it fits and whether it hangs properly.

### ***Making a Card Pattern***

When the designer is completely satisfied with the fit of the toile, they show it to a professional pattern maker who then makes the finished, working version of the pattern out of card. The pattern maker's job is very precise and painstaking. The fit of the finished garment depends on their accuracy.

### ***The Finished Dress***

Finally, a sample garment is made up in the proper fabric.

### **Areas of Work**

There are three main ways in which designers can work:

1. *Working freelance:* Freelance designers work for themselves. They sell their work to fashion houses, direct to shops, or to clothing manufacturers. The garments bear the buyer's label.
2. *Working in-house:* In-house designers are employed full-time by one fashion company. Their designs are the property of that company, and cannot be sold to anyone else.
3. *Setting up a company:* Fashion designers often set up their own companies. Many people find this more satisfying than working for someone else, as their designs are sold under their own label.

### **AREAS OF FASHION DESIGN**

Many professional fashion designers start off by specialising in a particular area of fashion. The smaller and more specific the market, the more likely a company is to get the right look and feel to their clothes. It is also easier to establish yourself in the fashion industry if a company is known for one type of product, rather than several. Table 1 shows the areas many designers choose to specialise in.

Table 1. Areas of fashion design

| Area                 | Brief                                              | Market                                    |
|----------------------|----------------------------------------------------|-------------------------------------------|
| Women's Day wear     | Practical, comfortable, fashionable                | Haute couture, ready-to-wear, mass market |
| Women's Evening wear | Glamorous, sophisticated, apt for the occasion     | Haute couture, ready-to-wear, mass market |
| Women's Lingerie     | Glamorous, comfortable, washable                   | Haute Couture, ready-to-wear, mass market |
| Men's Day wear       | Casual, practical, comfortable                     | Tailoring, ready-to-wear, mass market     |
| Men's Evening wear   | Smart, elegant, formal, apt for the occasion       | Tailoring, ready-to-wear, mass market     |
| Boys' Wear           | Practical, hard-wearing, washable, inexpensive     | Ready-to-wear, mass market                |
| Girls' Wear          | Pretty, colorful, practical, washable, inexpensive | Ready-to-wear, mass market                |
| Teenage Wear         | Highly fashion-conscious, inexpensive              | Ready-to-wear, mass market                |
| Sportswear           | Comfortable, practical, well-ventilated, washable  | Ready-to-wear, mass market                |
| Knitwear             | Right weight and color for the season              | Ready-to-wear, mass market                |
| Outerwear            | Stylish, warm, right weight and color              | Ready-to-wear, mass market                |
| Bridal wear          | Sumptuous, glamorous, classic                      | Haute couture, ready-to-wear, mass market |
| Accessories          | Striking, fashionable                              | Haute couture, ready-to-wear, mass market |

## FASHION AND CHANGE

Fashion, by definition, changes constantly. The changes may proceed more rapidly than in most other fields of human activity. For some, modern fast-paced changes in fashion embody many of the negative aspects of capitalism: it results in waste and encourages people *qua* consumers to buy things unnecessarily.

Others, especially young people, enjoy the diversity that changing fashion can apparently provide, seeing the constant change as a way to satisfy their desire to experience "new" and "interesting" things. Note too that fashion can change to enforce uniformity, as in the case where so-called Mao suits became the national uniform of mainland China.

A fashion designer has to be creative. They have to express their designs in sketches. They need not be excellent artists but should be capable of combining tones, shades and colours. Dress designers need to have good imagination and an ability to think in three-dimension to translate into fashion what they can contemplate.

A fashion designers has to be fashion savvy and have the knowledge and experience of elementary tailoring skills and techniques and be able to distinguish among various kinds of fabrics. Good designers are always original, experimentative and inventive in designing custom made outfits and designer dresses. Designers are always experimenting with new design styles every season.

Materially affluent societies can offer a variety of different fashions, in clothes or accessories, to choose from. At the same time there remains an equal or larger range designated 'out of fashion'. These or similar fashions may cyclically come back 'into fashion' in due course, and remain 'in fashion' again for a while.

Practically every aspect of appearance that can be changed has been changed at some time, for example skirt

lengths ranging from ankle to mini, etc. In the past, new discoveries and lesser-known parts of the world could provide an impetus to change fashions based on the exotic: Europe in the eighteenth or nineteenth centuries, for example, might favour things Turkish at one time, things Chinese at another, and things Japanese at a third.

A modern version of exotic clothing includes club wear. Globalisation has reduced the options of exotic novelty in more recent times, and has seen the introduction of non-Western wear into the Western world. Fashion houses and their associated fashion designers, as well as high-status consumers, appear to have some role in determining the rates and directions of fashion change.

#### FASHION AND MEDIA

An important part of fashion is fashion journalism. Editorial critique and commentary can be found in magazines, on television, fashion websites and in fashion blogs. At the beginning of the twentieth century, fashion magazines began to include photographs and became even more influential than in the past.

In cities throughout the world these magazines were greatly sought-after and had a profound effect on public taste. Talented illustrators drew exquisite fashion plates for the publications which covered the most recent developments in fashion and beauty. Perhaps the most famous of these magazines was *La Gazette du bon ton* which was founded in 1912 by Lucien Vogel and regularly published until 1925.

High fashion did not become popular among the general population until it started getting featured on television; few designers were household names, models weren't famous and fashion shows were not the celebrity driven extravaganzas of today. It began in the 1950s with small fashion shows. In the 1960s and 1970s, fashion segments on various entertainment shows became more

frequent, and by the 1980s, dedicated fashion shows like *Fashion Television* started to appear.

Fashion made its debut on the world wide web in January 1995 with the launch of Fashion Net by Stig Harder in Paris, France. In the mid 1990s, the Internet was still largely a research network populated by academics. But the strong appeal of this entirely new medium was made evident by the pioneering efforts of fashion's early entrants and soon both independent and established fashion publishers, designers and visual artists were online. As Nick Knight—possibly the very first fashion photographer to embrace the Internet—succinctly put it, it showed great potential over “yet another glossy picture in a magazine.”

#### FASHION EDUCATION

Most fashion designers today have attended some kind of art school. There are a number of well known fashion design schools worldwide. Possibly the most famous is Central Saint Martins College of Art and Design in London. Other notable schools include Parsons The New School for Design in New York City, AIU in Los Angeles, Royal Academy of Fine Arts in Antwerp, the London College of Fashion, and The Royal College of Arts in London. In India, fashion institutes like National Institute of Fashion Technology (NIFT), Indian Institute of Fashion Technology (IIFT), Pearl Fashion Academy etc., are established for fashion education.

Most fashion design courses last for around three years. As well as teaching students about the artistic and technical side of the subject, some courses include a year working in the fashion industry, to give students a taste of commercial fashion design. Others offer the chance to visit fashion houses abroad. At the end of their final year most students produce a collection which is then show to buyers and prospective employers at the college show. To keep

cost down, each collection consists of around three to eight outfits. To put across a consistent and memorable look within this limited range of garments, students specialise in one particular area. Many colleges enter students for design competitions, sponsored by clothing or fabric companies. This gives students commercial experience, and provides fresh talent for the companies.

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## History of Fashion Designing

The idea of fashion as a personal statement rather than a cultural expression begins in the 16th century: ten portraits of German or Italian gentlemen may show ten entirely different hats. But the local culture still set the bounds, as Albrecht Durer recorded in his actual or composite contrast of Nuremberg and Venetian fashions at the close of the 15th century.

Fashions among upper-class Europeans began to move in synchronicity in the 18th century; though colours and patterns of textiles changed from year to year, the cut of a gentleman's coat and the length of his waistcoat, or the pattern to which a lady's dress was cut changed more slowly. Men's fashions derived from military models, and changes in a European male silhouette are galvanised in theatres of European war, where gentleman officers had opportunities to make notes of foreign styles.

The pace of change picked up in the 1780s with the publication of French engravings that showed the latest Paris styles. By 1800, all Western Europeans were dressing alike: local variation became first a sign of provincial culture, and then a badge of the conservative peasant.

Fashion in clothes has allowed wearers to express emotion or solidarity with other people for millennia. Modern Westerners have a wide choice available in the

selection of their clothes. What a person chooses to wear can reflect that person's personality or likes. When people who have cultural status start to wear new or different clothes a fashion trend may start. People who like or respect them may start to wear clothes of a similar style.

Fashions may vary significantly within a society according to age, social class, generation, occupation and geography as well as over time. If, for example, an older person dresses according to the fashion of young people, he or she may look ridiculous in the eyes of both young and older people. The term "fashion victim" refers to someone who slavishly follows the current fashions. One can regard the system of sporting various fashions as a fashion language incorporating various fashion statements using a grammar of fashion.

#### EARLY BEGINNINGS

The first fashion designer who was not merely a dressmaker was Charles Frederick Worth (1826-1895). Before the former draper set up his *maison couture* (fashion house) in Paris, clothing design and creation was handled by largely anonymous seamstresses, and high fashion descended from styles worn at royal courts. Worth's success was such that he was able to dictate to his customers what they should wear, instead of following their lead as earlier dressmakers had done.

It was during this period that many design houses began to hire artists to sketch or paint designs for garments. The images alone could be presented to clients much more cheaply than by producing an actual sample garment in the workroom. If the client liked the design, they ordered it and the resulting garment made money for the house. Thus, the tradition of designers sketching out garment designs instead of presenting completed garments on models to customers began as an economy.

## EARLY TWENTIETH CENTURY

Throughout the early 20th century, practically all high fashion originated in Paris, and to a lesser extent London. Fashion magazines from other countries sent editors to the Paris fashion shows. Department stores sent buyers to the Paris shows, where they purchased garments to copy. Both made-to-measure salons and ready-to-wear departments featured the latest Paris trends, adapted to the stores' assumptions about the lifestyles and pocket books of their targeted customers.

At this time in fashion history the division between haute couture and ready-to-wear was not sharply defined. The two separate modes of production were still far from being competitors, and, indeed, they often co-existed in houses where the seamstresses moved freely between made-to-measure and ready-made.

Around the start of the twentieth-century fashion magazines began to include photographs and became even more influential than in the past. In cities throughout the world these magazines were greatly sought-after and had a profound effect on public taste. Talented illustrators—among them Paul Iribe, Georges Lepape, Erte, and George Barbier—drew exquisite fashion plates for these publications, which covered the most recent developments in fashion and beauty. Perhaps the most famous of these magazines was *La Gazette du bon ton* which was founded in 1912 by Lucien Vogel and regularly published until 1925.

The outfits worn by the fashionable women of the 'Belle Époque' (as this era was called by the French) were strikingly similar to those worn in the heyday of the fashion pioneer Charles Worth. By the end of the nineteenth-century, the horizons of the fashion industry had generally broadened, partly due to the more mobile and independent lifestyle many well-off women were beginning to adopt and the practical clothes they demanded. However, the fashions of the La Belle Époque

still retained the elaborate, upholstered, hourglass-shaped style of the 1800s. As of yet, no fashionable lady could dress or undress herself without the assistance of a third party. The constant need for radical change, which is now essential for the survival of fashion within the present system, was still literally unthinkable. The use of different trimmings were all that distinguished one season from the other.

Conspicuous waste and conspicuous consumption defined the fashions of the decade and the outfits of the couturiers of the time were incredibly extravagant, elaborate, ornate, and painstakingly made. The curvaceous S-Bend silhouette dominated fashion up until around 1908. The S-Bend corset was very tightly laced at the waist and so forced the hips back and the drooping mono bosom was thrust forward in a pouter pigeon effect creating an S shape. Toward the end of the decade the fashionable silhouette gradually became somewhat more straight and slim, partly due to Paul Poiret's high-waisted, shorter-skirted Directoire line of clothes.

The Maison Redfern was the first fashion house to offer women a tailored suit based directly on its male counterpart and the extremely practical and soberly elegant garment soon became an indispensable part of the wardrobe of any well-dressed woman. Another indispensable part of the outfit of the well-dressed woman was the designer hat. Fashionable hats at the time were either tiny little confections that perched on top of the head, or large and wide brimmed, trimmed with ribbons, flowers, and even feathers. Caroline Reboux, Legroux, and E. Lewis were the most sought-after names of the time. Parasols were still used as decorative accessories and in the summer they dripped with lace and added to the overall elaborate prettiness.

During the early years of the 1910s the fashionable silhouette became much more lithe, fluid and soft than in the 1900s. When the Ballets Russes performed

Scheherezade in Paris in 1910, a craze for Orientalism ensued. The couturier Paul Poiret was one of the first designers to translate this vogue into the fashion world.

Poiret's clients were at once transformed into harem girls in flowing pantaloons, turbans, and vivid colours and geishas in exotic kimono. Paul Poiret also devised the first outfit which women could put on without the help of a maid. The Art Deco movement began to emerge at this time and its influence was evident in the designs of many couturiers of the time. Simple felt hats, turbans, and clouds of tulle replaced the styles of headgear popular in the 1900s. It is also notable that the first real fashion shows were organised during this period in time, by the first female couturier, Jeanne Paquin, who was also the first Parisian couturier to open foreign branches in London, Buenos Aires, and Madrid.

Two of the most influential fashion designers of the time were Jacques Doucet and Mariano Fortuny. The French designer Jacques Doucet excelled in superimposing pastel colours and his elaborate gossamery dresses suggested the Impressionist shimmers of reflected light. His distinguished customers never lost a taste for his fluid lines and flimsy, diaphanous materials. While obeying imperatives that left little to the imagination of the couturier, Doucet was nonetheless a designer of immense taste and discrimination, a role many have tried since, but rarely with Doucet's level of success.

The Venice-based designer Mariano Fortuny y Madrazo was a curious figure, with very few parallels in any age. For his dress designs he conceived a special pleating process and new dyeing techniques. He gave the name Delphos to his long clinging sheath dresses that undulated with colour. Each garment was made of a single piece of the finest silk, its unique colour acquired by repeated immersions in dyes whose shades were suggestive of moonlight or of the watery reflections of the Venetian lagoon. Breton straw, Mexican cochineal, and indigo from

the past, there was a special outfit for every event in the well-dressed gentleman's day, but young men in the Twenties, no longer afraid to show their youthfulness, began to wear the same soft wool suit all day long. Short suit jackets replaced the old long jackets of the past which were now only worn for formal occasions. Men had a variety of sport clothes available to them, including sweaters and short pants, commonly known as knickers. For evening wear a short tuxedo was more fashionable than the tail-coat, which was now seen as somewhat old-fashioned. The London cut, with its slim lines, loose-fitting sleeves, and padded shoulders, perfected by the English tailor Scholte, was very popular.

Fair Isle patterns became very popular for both sexes. Heels, at the time, were often over two inches high and Coco Chanel helped popularise the two-tone shoe, one of her trademarks. Salvatore Ferragamo and Andre Perugia were two of the most influential and respected designers in footwear. Many stars of the silent films had a significant impact on fashion during the 1920s, perhaps most notably Louise Brooks, Gloria Swanson, and Colleen Moore. The lighthearted, forward-looking fashions of the 1920's gradually came to halt after the Wall Street Crash of 1929, and succumbed to a more conservative style.

In the 1930s, as the public began to feel the effects of the Great Depression, many designers found that crises are not the time for experimentation. Fashion became more compromising, aspiring to preserve feminism's victories while rediscovering a subtle and reassuring elegance and sophistication.

Women's fashions moved away from the brash, daring style of the Twenties towards a more romantic, feminine silhouette. The waist was restored to its proper position, hemlines dropped, there was renewed appreciation of the bust, and backless evening gowns and soft, slim-fitting day dresses became popular. The female body was remodelled to a more neoclassical shape and slim, toned, and athletic

bodies came into vogue. The fashion for outdoor activities stimulated couturiers to manufacture what would nowadays be called sportswear. The term 'ready-to-wear' was not yet widely used, but the boutiques already described such cloths as being 'for sport'.

Two of the most prominent and influential fashion designers of the 1930s were Elsa Schiaparelli and Madeleine Vionnet. Elsa Schiaparelli showed her first collection in 1929 and was immediately hailed by the press as 'one of the rare innovators' of the day. With her exciting and inventive designs, Schiaparelli did not so much revolutionise fashion as shatter its foundations.

The first pullover she displayed in her windows created a sensation: it was knitted in black with a trompe-l'oeil white bow. She consistently turned out breathtaking collections thereafter. Schiaparelli was a close friend of Christian Berard, Jean Cocteau, and Salvador Dali, who designed embroidery motifs for her and supplied inspiration for models like the desk suit with drawers for pockets, the shoe-shaped hat, and the silk dress painted with flies and the one bearing a picture of a large lobster. All of Paris thronged to her salon at 21 Place Vendome as collection succeeded collection.

Madeleine Vionnet found her inspiration in ancient statues, creating timeless and beautiful gowns that would not look out of place on a Greek frieze. Queen of the bias cut, she produced evening dresses that fitted the body without excessive elaboration or dissimulation, employing a flowing and elegant line. Her perfect draping of chiffon, silk, and Moroccan crepe created a marvellously poised and sensual effect. The unparalleled success of Vionnet's cuts guaranteed her reputation right up until her retirement in 1939.

Mainbocher, the first American designer to live and work in Paris, was also influential, with his plain yet supremely elegant designs, often employing the bias cut pioneered by Vionnet. The luxury goods manufacturer

Hermes started selling handmade printed silk square scarves in early '30s, and also popularised the zip and many other practical innovations. Toward the end of the decade, women's fashions took on a somewhat more imposing and broad-shouldered silhouette, possibly influenced by Elsa Schiaparelli. Men's fashions continued the informal, practical trend that had dominated since the end of the First World War.

#### MID-TWENTIETH CENTURY

The Second World War created many radical changes in the fashion industry. After the War Paris's reputation as the global centre of fashion began to crumble and off-the-peg and mass-manufactured fashions became increasingly popular. A new youth style emerged in the Fifties, changing the focus of fashion forever. As the installation of central heating became more widespread the age of minimum-care garments began and lighter textiles and, eventually, synthetics, were introduced.

In the West, the traditional divide that had always existed between high society and workers came to be considered simply unjustifiable. In particular, a new young generation wanted to reap the benefits of a booming consumer society. Privilege became less blatantly advertised than in the past and differences were more glossed over.

As the ancient European hierarchies were overturned, the external marks of distinction faded with them. By the time the first rockets were launched into space, Europe was more than ready to adopt a quality ready-to-wear garment on American lines, something to occupy the middle ground between off-the-peg and couture. The need was all the more pressing because increases in overheads and raw material costs were beginning to relegate handmade fashion to the sidelines. Meanwhile, rapidly developing new technologies made it easier and easier to manufacture an ever-improving high-quality product.

Faced with the threat of a factory-made fashion-based product, Parisian haute couture mounted its defences, but to little effect. It could not stop fashion leaking out onto the streets. In these years when the old world was taking its final bow, the changes in fashion were one of the most visible manifestations of the general shake-up in society. Before long, whole categories of women hitherto restricted to inferior substitutes to haute couture would enjoy a greatly enlarged freedom of choice.

Dealing in far larger quantities, production cycles were longer than those of couture workshops, which meant that stylists planning their lines for the twice-yearly collections had to try to guess more than a year in advance what their customers would want. A new power was afoot, that of the street, constituting a further threat to the dictatorship of the masters of couture.

Many fashion houses closed during occupation of Paris during World War II, including the Maison Vionnet and the Maison Chanel. Several designers, including Mainbocher, permanently relocated to New York. In the enormous moral and intellectual re-education program undertaken by the French state couture was not spared. In contrast to the stylish, liberated Parisienne, the Vichy regime promoted the model of the wife and mother, the robust, athletic young woman, a figure who was much more in line with the new political criteria.

Germany, meanwhile, was taking possession of over half of what France produced, including high fashion, and was also considering relocating French haute couture to the cities of Berlin and Vienna, neither of which had any significant tradition of fashion. The archives of the *Chambre Syndicale de la Couture* were seized, most consequentially the client list. The point of all this was to break up a monopoly that supposedly threatened the dominance of the Third Reich.

Due to the difficult times, the number of models in shows was limited to seventy-five, evening wear was

shortened and day wear was much skimpier, made using substitute materials whenever possible. From 1940 onward, no more than thirteen feet (four meters) of cloth was permitted to be used for a coat and a little over three feet (one meter) was all that allowed for a blouse. No belt could be over one and a half inches (four centimetres) wide. Despite this, haute couture tried to keep its flag flying.

Humour and frivolity became a way of defying the occupying powers and couture somehow survived. Although some have argued that the reason it endured was because of the patronage of the wives of rich Nazis, in actuality, records reveal that, aside from the usual wealthy Parisiennes, it was the wives of foreign ambassadors, clients from the black market, and a whole eclectic mix of people who carried on to frequent the salons, among whom German women were but a minority.

In spite of the fact that so many fashion houses closed down or moved away during the war, several new houses opened up, including Jacques Fath, Maggy Rouff, Marcel Rochas, Jeanne Lafaurie, Nina Ricci, and Madeleine Vramant. During the Occupation, the only true way for a woman to flaunt her extravagance and add to colour to a drab outfit was to wear a hat. In this period, hats were often made of scraps of material that would have otherwise been thrown away, sometimes incorporating butter muslin, bits of paper, and wood shavings. Among the most innovative milliners of the time were Pauline Adam, Simone Naudet, Rose Valois, and Le Monnier.

Paris's isolated situation in the 1940s enabled the Americans to exploit the ingenuity and creativity of their own designers. During the Second World War, Vera Maxwell presented co-ordinates in plain, simply cut outfits and also introduced innovations to men's work clothes. Bonnie Cashin transformed boots into a major fashion accessory, and, in 1944, started to produce original and imaginative sportswear. Claire McCardell, Anne Klein, and Tina Leser formed a remarkable trio of women who were

to lay the foundations of American sportswear, ensuring that ready-to-wear was not simply thought of as second best, but as an elegant and comfortable way for modern women to dress. Among young men in the War Years the zoot suit became popular. Many actresses of the time, including Rita Hayworth, Katharine Hepburn, and Marlene Dietrich, had a significant impact on popular fashion.

The couturier Christian Dior created a tidal wave with his first collection in February 1947. The collection contained dresses with tiny waists, majestic busts, and full skirts swelling out beneath small bodices, in a manner very similar to the style of the Belle Epoque. The extravagant use of fabric and the feminine elegance of the designs appealed greatly to a post-war clientele and ensured Dior's meteoric rise to fame.

Flying in the face of continuity, logic, and erudite sociological predictions, fashion in the 1950s, far from being revolutionary and progressive, bore strong nostalgic echoes of the past. A whole society which, in the 1920s and '30s, had greatly believed in progress, was now much more circumspect. Despite the fact that women had the right to vote, to work, and to drive their own cars, they chose to wear dresses made of opulent materials, with corseted waists and swirling skirts to mid-calf. As fashion looked to the past, haute couture experienced something of a revival and spawned a myriad of star designers who profited hugely from the rapid growth of the media.

Throughout the 1950s, although it would be for the last time, women around the world continued to submit to the trends of Parisian haute couture. Three of the most prominent of the Parisian couturiers of the time were Cristobal Balenciaga, Hubert de Givenchy, and Pierre Balmain. The frugal prince of luxury, Cristobal Balenciaga Esagri made his fashion debut in the late Thirties. However, it was not until the post-war years that the full scale of the inventiveness of this highly original designer became evident.

In 1951, he totally transformed the silhouette, broadening the shoulders and removing the waist. In 1955, he designed the tunic dress, which later developed into the chemise dress of 1957. And eventually, in 1959, his work culminated in the Empire line, with high-waisted dresses and coats cut like kimonos. His mastery of fabric design and creation defied belief. Balenciaga is also notable as one of the few couturiers in fashion history who could use their own hands to design, cut, and sew the models which symbolised the height of his artistry.

Hubert de Givenchy opened his first couture house in 1952 and created a sensation with his separates, which could be mixed and matched at will. Most renowned was his Bettina blouse made from shirting, which was named after his top model. Soon, boutiques were opened in Rome, Zurich, and Buenos Aires. A man of immense taste and discrimination, he was, perhaps more than any other designer of the period, an integral part of the world whose understated elegance he helped to define.

Pierre Balmain opened his own salon in 1945. It was in a series of collections named 'Jolie Madame' that he experienced his greatest success, from 1952 onwards. Balmain's vision of the elegantly-dressed woman was particularly Parisian and was typified by the tailored glamour of the New Look, with its ample bust, narrow waist, and full skirts, by mastery of cut and imaginative assemblies of fabrics in subtle colour combinations. His sophisticated clientele was equally at home with luxurious elegance, simple tailoring, and a more natural look. Along with his haute couture work, the talented businessman pioneered a ready-to-wear range called Florilege and also launched a number of highly successful perfumes.

Also notable is the return of Coco Chanel to the fashion world. Following the closure of her salons in the war years, in 1954, aged over seventy, she staged a comeback and on February 5 she presented a collection which contained a whole range of ideas that would be adopted and copied

by women all over the world: her famous little braided suit with gold chains, shiny costume jewellery, silk blouses in colours that matched the suit linings, sleek tweeds, monogrammed buttons, flat black silk bows, boaters, quilted bags on chains, and evening dresses and furs that were marvels of simplicity.

After the war, the American look (which consisted of broad shoulders, floral ties, straight-legged pants, and shirts with long pointed collars, often worn hanging out rather than tucked in) became very popular among men in Europe. Certain London manufacturers ushered in a revival of Edwardian elegance in men's fashion, adopting a tight-fitting retro style that was intended to appeal to traditionalists. This look, originally aimed at the respectable young man about town, was translated into popular fashion as the Teddy boy style. The Italian look, popularised by Caraceni, Brioni, and Cifonelli, was taken up by an entire generation of elegant young lovers, on both sides of the Atlantic.

The designers of Hollywood created a particular style of glamor for the stars of American film, and outfits worn by the likes of Marilyn Monroe, Lauren Bacall, or Grace Kelly were widely copied. Quantitatively speaking, a costume worn by an actress in a Hollywood movie would have a much bigger audience than the photograph of a dress designed by a couturier illustrated in a magazine read by no more than a few thousand people. Without even trying to keep track of all the Paris styles, its costume designers focused on their own version of classicism, which was meant to be timeless, flattering, and photogenic.

Using apparently luxurious materials, such as sequins, chiffon, and fur, the clothes were very simply cut, often including some memorable detail, such as a low-cut back to a dress which was only revealed when the actress turned her back from the camera or some particularly stunning accessory. The most influential and respected designers of Hollywood from the 1930s to the 1950s were

Edith Head, Orry-Kelly, William Travilla, Jean Louis, Travis Banton, and Gilbert Adrian.

The footwear designer Roger Vivier elevated the status of the handmade shoe to incredible heights, earning him a reputation as one of the leading figures of twentieth-century shoe design. Mass-manufactured, off-the-peg clothing became much more popular than in the past, granting the general public unprecedented access to fashionable styles.

Until the 1960s Paris was considered to be the centre of fashion throughout the world. However, in between 1960 and 1969 a radical shake-up occurred in the fundamental structure of fashion. From the 1960s onward there would never be just one single, prevailing trend or fashion but a great plethora of possibilities, indivisibly linked to all the various influences in other areas of people's lives.

Young people, with a power and culture that was all their own, now at an age to speak out, were a force to be reckoned with and had a powerful impact on the fashion industry. For perhaps the first time in history there was an independent youth fashion, that was not based on the conventions of an older age group. In the past, failure to follow fashion merely meant that you were poor but in the Sixties it became just as much a statement of personal freedom.

In stark contrast to their mature, ultra-feminine mothers, the woman of the 1960s adopted a girlish, childlike style, with short skirts and straightened curves, reminiscent to the look of the 1920s. At the start of the decade skirts were knee-high but steadily became shorter and shorter until the mini-skirt emerged in 1965. By the end of the decade they had shot well above the stocking top, making the transition to tights inevitable.

Many of the radical changes in fashion developed in the streets of London, with such gifted designers as Mary

Quant (known for launching the mini skirt) and Barbara Hulanicki (the founder of the legendary boutique Biba). Paris, also, had its share of new and revolutionary designers, including Pierre Cardin (known for his visionary and skilfully-cut designs), Andre Courreges (known for his futuristic outfits and for launching the mini skirt along with Mary Quant), Yves Saint Laurent (known for his revolutionary yet elegant fashions), and Emanuel Ungaro (known for his imaginative use of colour and bold baroque contrasts).

In the United States, Rudi Gernreich (known for his avant-garde and futuristic designs) and James Galanos (known for his luxurious read-to-wear) were also reaching a young audience. The main outlets for these new young fashion designers were small boutiques, selling outfits that were not exactly 'one-offs', but were made in small quantities in a limited range of sizes and colours. However, not all designers took well to the new style and mood. In 1965, Coco Chanel mounted a rearguard action against the exposure of the knee and Balenciaga resolutely continued to produce feminine and conservative designs.

An 1960s advert for the famous boutique BibaThe basic shape and style of the time was simple, neat, clean cut, and young. Synthetic fabrics were very widely-used during the Sixties. They took dyes easily and well, giving rise to colours that were both clear and bright, very much mirroring the mood of the period. Hats suffered a great decline and by the end of the decade they were relegated to special occasions only. Lower kitten heels were a pretty substitute to stilettos. Pointed toes gave way to chisel shaped toes in 1961 and to an almond toe in 1963. Flat boots also became popular with very short dresses in 1965 and eventually they rose up the leg and reached the knee.

Two notable and influential designers in the '60s were Emilio Pucci and Paco Rabanne. Emilio Pucci's sportswear designs and prints inspired by Op art, psychedelia, and medieval heraldic banners earned him a reputation that

extended far beyond the circles of high society. His sleek shift dresses, tunics, and beachwear, created a 'Puccimania' that was all part of a movement to liberate the female form and his designs are today synonymous with the 1960s.

Francisco Rabaneda Cuervo opened his first couture house in 1966 and, from the start, produced resolutely modern designs. Rather than using conventional dress materials, he created garments from aluminium, Rhodoid, and pieces of scrap metal. His designs, as well as being experimental, were also closely in tune with what modern adventurous young women wanted to wear. Among his innovations are the seamless dress made, after much experiment, by spraying vinyl chloride on to a mold, and the low-budget disposable dress made of paper and nylon thread. Rabanne was also the first fashion designer to use black models, which very nearly resulted in his dismissal from the *Chambre Syndicale de la Couture Parisienne*. The success of his perfume *Calandre* helped support the less profitable areas of his work, while his utopianism assured him a unique position in the conservative world of haute couture.

The principal change in menswear in the '60s was in the weight of the fabric used. The choice of materials and the method of manufacture produced a suit that, because it was lighter in weight, had a totally different look, with a line that was closer to the natural shape of the body, causing men to look at their figures more critically. The spread of jeans served to accelerate a radical change in the male wardrobe. Young men grew their hair down to their collars and added a touch of colour, and even floral motifs, to their shirts. The polo neck never succeeded in replacing the tie, but the adoption of the workman's jacket in rough corduroy, and especially the Mao jacket proved to be more than simply a political statement. A few futuristic rumblings were set off by Pierre Cardin and Andre Courreges, but the three-piece suit still survived intact.

In the early 1960s there were influential 'partnerships' of celebrities and high-fashion designers, most famously Audrey Hepburn and Givenchy, and Jackie Kennedy and Oleg Cassini. Also, many models had a very profound effect on fashion, most notably Twiggy, Veruschka, and Jean Shrimpton. Early in the decade, culottes were in style and the bikini finally came into fashion in 1963. The hippie and psychedelic movements late in the decade also had a strong influence on clothing styles, including bell-bottom jeans, tie-dye and batik fabrics, as well as paisley prints.

Nick-named the 'me' decade, 'please yourself' was the catchword of the 1970s. Many saw it as the end of good taste. The decade began with a continuation of the hippie look of the late 1960's, with afghans, Indian scarves, and flower-print tunics. Jeans remained frayed, tie dye was still popular, and the fashion for unisex mushroomed.

An immense movement claiming civil rights for blacks combined with the influence of soul music from the USA created a nostalgia for Africa and African culture. A radical chic emerged, influenced by the likes of James Brown, Diana Ross, Angela Davis, and the Black Panthers, in everything from afro hairstyles to platform soles. During the Seventies brands greatly increased their share of the international market. Hems began dropping in 1974 to below the knee, until finally reaching the lower mid calf in 1977 and shoulderlines were dropped.

Perhaps the two most innovative French fashion designers of the 1970s were Kenzo Takada and Sonia Rykiel. The undisputed star of Parisian fashion in the Seventies, Kenzo drew his inspiration from all over the world, mixing Western and Oriental folk influences with a fantastic *joie de vivre* and an instinctive understanding of what his young customers wanted. With his fluid lines, unusual prints, clever accessories, and finery that was hitherto unprecedented in ready-to-wear, he very much turned the fashion world upside down.

The queen of figure-hugging knits, in 1974, Sonia Rykiel designed her first pullovers with reversed seams. However, more than that, she created a whole range of clothes that were extremely individual and yet could be worn almost anywhere. The Rykiel style, dominated by fluid knitted garments, dark blacks, rhinestones, long boa-like scarves, and little crocheted hats, conquered the American market, and even to this day Rykiel is considered by many Americans as the true successor of Chanel.

Because of punk, London retained a considerable degree of influence over fashion, most significantly in the boutiques of the King's Road, where Vivienne Westwood's boutique, SEX, which opened in 1971, blew with the prevailing wind. This temple of British iconoclasm centred on fetishistic accessories and ranges of clothing in which black rubber and steel studs were the external signs of an underlying sadism.

Postmodernist and iconoclastic in essence the punk movement was a direct reaction to the economic situation during the economic depression of the period, the vehicle for a hatred that was more visceral than political. Punk had at its heart a manifesto of creation through disorder. With their ripped T-shirts, Red Indian hairstyles, Doc Martens, bondage trousers, and chains, the punks exported an overall feeling of disgust around the globe.

Another popular British style was the resolutely unmodern, feminine, countrified style of clothing popularised by Laura Ashley, which consisted of long flounced skirts and high-knecked blouses in traditional floral prints, worn with crocheted shawls. Laura Ashley started out running a small business in Wales in the mid-1960s and the company continued to expand until the accidental death of its owner in 1985.

Laura Ashley was not the only designer to look nostalgically to the past. Fashions based on the 1920s, 30s, 40s, and 50s were popular throughout much of the decade,

with Hollywood films like *The Godfather* and *The Great Gatsby*, and numerous exhibitions on costume history at the Metropolitan Museum of Art in New York increasing their popularity. In Japan, the boutiques of Tokyo's fashionable Harajuku district sold many reworked versions of traditional British and American looks.

In the United States, the general trend in fashion was towards simplification and longer skirts, although many women reacted negatively to the midi-length, which they felt to be aging. Pants, on the other hand, earned unanimous approval. Jeans profited most from becoming an accepted part of the American fashion scene in the 1970s, their new-found respectability deriving from their inclusion in collections under the heading of sportswear. The new stars of American ready-to-wear adapted the best of what they learned from Europe to the massive American clothing industry.

Calvin Klein and Ralph Lauren rose from anonymity more or less simultaneously to tackle the question of designing clothes for the men and women of a new world. Two opposing movements dominated fashion in the U.S.A. during the Seventies. On one hand, there was the tailored, unisex look; on the other hand, a fluid, unstructured style with a strong feeling of Thirties glamor. The most influential American designer of the time, Roy Halston Frowick (known simply as Halston), belonged to the latter category. Acquiring celebrity status on the New York scene, his particular talent was in reconciling the made-to-measure garment for the special occasion with concepts of comfort, naturalness, and relaxation. With his kaftans, shirtwaisters, djellabas, ultra-lightweight shift dresses, and tunics worn over shorts and wide-legged pants, he was an icon of the era, and a regular visitor at the VIP room of the Studio 54 after its opening in 1977.

Geoffrey Beene, praised for his elegant and sophisticated cuts and his use of black and white, was at his most successful in the radically simplified designs at

which he excelled. His smart little dresses and well-cut suits in jersey, flannel, and wool were instrumental in discouraging American women from over-accessorising. Bill Blass, who launched his own range in 1962, developed the habit of travelling all over the United States in order to hear from himself what his customers desired.

One of the most popular designers of the time, he was almost too successful in fulfilling his customers wishes. His disciplined style and workmanship was particularly favoured by businesswomen and the wives of senior executives. Betsey Johnson started out designing for the boutique Paraphernalia. Using vinyl and metallic fabrics and putting emphasis on wit, imagination, and independence, she brought an unprecedented spirit of irreverence to New York in the Seventies.

In popular fashion the glam rock style of clothing, worn by such rock performers as Rod Stewart, David Bowie, and Marc Bolan, was very influential, particularly in the United Kingdom. The designer Elio Fiorucci had a very similar look. His boutique in Milan sold such things as brightly coloured rubber boots, plastic daisy sandals, fake fur, and Pop Art-inspired jackets.

During the 1970s a new generation of menswear boutiques sprang up, aiming to change the decor, rituals, and customer base of a traditionally 'difficult' trade. To sell fashionable clothes to a young man at the end of the 60's was still, in many circles, tantamount to questioning his masculinity. Men's appearance changed more in the Seventies than it had done in a whole century. Many of the fashion designers who revolutionised the male look owed a lot of their innovations to Pierre Cardin: narrow shoulders, tight-fitting lines, no tie, no interfacing, zip-up boiler suits, waisted jackets or tunics, sometimes no shirt.

Work clothes supplied inspiration for a less formal style, encouraging designers to look beyond the traditional suit and, for example, adopt a unisex look or investigate

the massive supply of second-hand clothes. Sometimes this kind of male dressing-down, often denounced as 'hippie', gained formal recognition as a deliberate look.

At certain other times, as part of a retro movement, designers introduced a revival of '30s elegance. The unearthing of old military clothing, preferably khaki and from the United States; English-style shoes; Oxford shirts; immaculate T-shirts; tweed jackets with padded shoulders; brightly-coloured V-neck sweaters; cashmere-printed scarves draped around the neck all imposed a certain uniformity on the casual beatnik look of the male wardrobe at the end of the Seventies.

Also significant are the developments in Italian fashion that happened during the period. In the course of the 1970s, as a result of its ready-to-wear industry, Milan confirmed its status as second only to Paris as a centre of international fashion. The 'alta moda' preferred Rome, the base of the couturiers Valentino, Capucci, and Schon.

Capitalising on the dominant trend of anti-fashion Italy offered a glamor that had nothing to do with the dictates of Parisian haute couture. While profiting from a clearly defined style, Italian fashion was luxurious and easy to wear. The two most influential Italian fashion designers of the time were probably Giorgio Armani and Nino Cerruti. Giorgio Armani produced his first collection for women in 1975.

From the outset, the line was dynamic, urban, and understated, androgynous in inspiration. Armani offered a restrained style that greatly appealed to the increasing population of women who now had access to the world of work and occupied progressively more senior positions within it. This was only the beginning of a tremendous career, which came to fruition in 1981 when Emporio Armani was launched.

In 1957 Nino Cerruti opened the menswear boutique Hitman in Milan. A man of taste and discernment, in 1976

he presented his first collection for women. Two years later, he launched his first perfume. In linking the career of a successful industrialist with that of a high-quality designer, Cerruti occupied a unique position in Italian ready-to-wear.

#### LATE TWENTIETH CENTURY

During the late twentieth century fashions began to criss-cross international boundaries with rapidity. Popular Western styles were adopted all over the world, and many designers from outside of the West had a profound impact on fashion. Synthetic materials such as Lycra, Spandex, and viscose became widely-used, and fashion, after two decades of looking to the future, once again turned to the past for inspiration.

The society of the Eighties no longer criticised itself as consumerist, but was, instead, interested in 'the spectacle'. The self-conscious image of the decade was very good for the fashion industry. Fashion shows were transfigured into media-saturated spectacles and frequently televised, taking high priority in the social calendar. Appearance was related with performance, which was of supreme importance to a whole generation of young urban professionals, whose desire to look the part related to a craving for power. The way in which men and women associated with the latest styles was no more a matter of passive submission but one of active choice. As fashion once again looked to the past, baroque evening dress and long gowns made a reappearance.

The two French fashion designers who best defined the look of the period were probably Thierry Mugler and Azsedine Alaïa. Strongly influenced by his early career in the theatre, Thierry Mugler produced fashion designs that combined Hollywood retro and futurism, with rounded hips, sharply accentuated shoulders, and a slight hint of the galactic heroine.

Mugler's glamorous dresses were a remarkable success, and signified the completé end of the hippy era and its unstructured silhouette. Known for his awe-inspiring combinations, Azsedine Alaia greatly influenced the silhouette of the woman of the Eighties. The master of all kinds of techniques that had previously been known only to haute couture, he experimented with many new and underused materials, such as Lycra and viscose. The finish, simplicity, and sheer sexiness of Alaia's look made women of every generation identify with his seductive style, and during the 1980s he achieved a certain glory and was held in very high regard by members of his own profession.

Also creating designs very typical of the era were Claude Montana, whose imposing, broad-shouldered designs, often made of leather, would not have looked out of place in the futuristic universe of Thierry Mugler, and Christian Lacroix, who sent shock waves through the world of haute couture, with his flounced skirts, embroidered corselets, bustles, and polka-dotted crinolines which evoked the rhythms of flamenco.

A number of promising newcomers entered the fashion scene in the Eighties. Angelo Tarlazzi, an extraordinary technician who once worked for Patou, bewitched both the press and his customers with his 'handkerchief' dresses. Made of squares of fabric, they transpired, when you came to put them on, to be far more complicated than at first appeared. Many a Parisian soiree of the 80's was enlivened by his dresses, all in a fluid and original style, in which cutting and sewing were kept to a minimum.

Chantal Thomass, the queen of sexy stockings and lace, won a devoted following for her seductive underwear and for evening gowns that looked like nightdresses and vice versa. Guy Paulin was one of the first designers to promote a severe, plain, and uncluttered look. His garments were classical in their proportions and made for comfort and simplicity, with their harmonious lines reinforced by a subtle palette of colours and fine materials. Under his own

name, Joseph designed luxurious knitwear along classic lines, creating loose, sexy garments in neutral colours. Carolina Herrera, long regarded as one of the most elegant members of the jet set, in 1981 launched a series of collections aimed at women like herself, featuring impeccably cut clothes of very high quality and outstandingly attractive evening dresses.

Inducing cold sweats, perplexity, and enthusiasm in more or less equal proportions, Japanese designers such as Rei Kawakubo and Yohji Yamamoto offered a look which marked a total break with the prevailing fashion image of the time. Flat shoes, no make-up, reserve, modesty, and secrecy were the hallmarks of this very modern look. Eventually, it began to include details from the fashions of the past, as Europe's ancient sites were revisited by these anarchists of fashion, whose influence on shape of clothes, at the end of the twentieth-century, became legendary.

In American fashion the seductive, clinging style of Donna Karan and the casual sophistication of Ralph Lauren were very influential. A star of the New York social scene, Donna Karan brought a very personal and feminine approach to the severe, sober-coloured, casual look that dominated American ready-to-wear. Setting up her own label in 1984, her designs won instant popularity among active urban women who greatly appreciated the understated luxury of her clothes. In 1971 Ralph Lauren opened a boutique for both men and women in Beverly Hills. His aristocratic style at prices the average American could afford created a sensation.

For an elite faced with all kinds of avant-garde fashions, it represented a rallying point, endorsing, as it did, a classic look that had been adopted for an active life. The number one of American ready-to-wear, he was equally successful with his sportswear and jeans, which allowed him to reach the widest possible range of social classes and age groups. Central to the success of a new

wave of American sportswear was the Perry Ellis label, established in 1978, which used colour and natural fibre to great advantage in its elegant variations on the basics. Norma Kamali, with her short skirts made of sweatshirting, leotards, headbands, and leg warmers, made jogging look fashionable. Kamali also created the popular 'rah-rah skirt'. Also notable is the extreme popularity of the Adidas sports label, which achieved an incredible level of street cred in the '80s, even inciting the hip hop group Run DMC to release the single 'My Adidas' in 1986. The legendary French shoe designer Manolo Blahnik also rose to fame during the 1980s, with his fantastical high heels, divine mules, and majestic boots. The astonishing multiplicity of trends that bloomed during the Eighties were curtailed by the economic recession that set in at the beginning of the 1990s, largely destroying the optimistic mood that is so advantageous to the fashion industry.

In the 1990s it was no longer the done thing to follow fashion slavishly, a sharp contrast to the highly a la mode '70s and '80s. The phobia of being underdressed was finally completely displaced by the fear of overdressing. Fashion in the '90s united around a new standard, minimalism, and styles of stark simplicity became the vogue. Despite the best efforts of a few designers to keep the flag for pretty dresses flying, by the end of the decade the notion of ostentatious finery had virtually disappeared. As well as the styling of the product, its promotion in the media became crucial to its success and image. The financial pressures of the decade had a devastating effect on the development of new talent and lessened the autonomy enjoyed by more established designers.

Fashion at the end of the 20th century tackled themes that fashion had not previously embraced. These themes included rape, disability, religious violence, death, and body modification. There was a dramatic move away from the sexy styles aimed at the glamorous *femme fatale* of the Eighties and many designers, taken with a vision of

romantic poverty, adopted the style of the poverty-stricken waif, dressed in a stark, perversely sober palette, with a face devoid of make-up. Clothes by ready-to-wear retailers such as The Gap, Banana Republic, and Eddie Bauer came to the forefront of fashion, managing to tap into the needs of women who simply wanted comfortable, wearable clothes. Retro clothing inspired by the 1960s and 1970s was popular for much of the 1990s.

In the '90s the designer label Prada became a true creative force in the fashion industry. The Milanese company was first established in 1923, when it was a firm that sold high-quality shoes and leather. It was not until the Eighties that Miuccia Prada, the niece of the company's founder, began to produce ready-to-wear fashion, gaining fame for her subtle, streamlined, yet unquestionably luxurious style, that catered for the privileged young woman who prefers understatement to flamboyant extravagance. The equally famous Italian fashion house, Gucci, was founded just a year before Prada, in 1922, and was also, like Prada, originally a firm that sold luxury leather goods.

Under Guccio Gucci, by the end of the 1960s the label had expanded to include a plethora of products with a distinctly Latin glamor. However, only in the '90s, when the Gucci heirs gave up control of the company to Invest Corp., who planned to turn the business around, did it truly begin to enjoy the kind of success it enjoys in the present day. Employing an unknown designer, Tom Ford, as design director in 1994, the fashion house was endowed with a great prestige, as Ford triggered a tidal wave with his chic and shocking collections, perfumes for men and women, revamped boutiques, and advertising campaigns.

In America three of the most influential fashion designers of the time were Michael Kors, Marc Jacobs, and Calvin Klein. Michael Kors set up his own business in 1980. However, it was not until the Nineties that the designer reached the peak of his popularity. His knowledge and

consciousness of trends enabled him to produce simple well-cut garments, whose sophistication and elegance appealed to a whole new breed of wealthy American customers drawn to the new vogue for minimalist chic.

Marc Jacobs is one of the most notable American designers of the period in that, unlike many American fashion designers in the past, he was not so much the co-ordinator of a mass-produced garment as a designer in the European sense of the word. One of the most promising talents in the fashion industry at the time, the LVMH (Louis Vuitton-Moët Hennessy) group offered him the job of designing a line of ready-to-wear to compliment the deluxe products of luggage specialist Louis Vuitton in the late '90s.

One of the first fashion designers to anticipate the globalisation of world markets, the already well-known designer Calvin Klein started to market his fashions, perfumes, and accessories not only right across the US, but also in Europe and Asia, achieving an unequalled success. A brilliant artistic director, Klein used carefully constructed advertisements containing images tinted with eroticism to promote his sophisticatedly functional mass-produced designs, which won massive popularity among the urban youth of the 1990s.

The group of designers known as the 'Antwerp Six' (so named because all of them were graduates of the Royal Academy of Fine Arts in Antwerp), who first emerged in the 1980s, came to prominence in the 1990s. Three of the most influential of the group were Ann Demeulemeester, Dries Van Noten, and Walter Van Beirendonck.

Ann Demeulemeester, from her first collection in 1991, demonstrated a great deal of confidence and inventiveness. Naturally inclined to understatement, she built her designs on contradictions, introducing contrasting elements into her fluid and streamlined fashions, which appealed to women who dressed, above all, to please themselves.

The work of Dries Van Noten was founded on a solid mastery of the art of tailoring, to which the young designer added discreet touches of fantasy in a highly personal style. Managing to be both classical and original, his fashions appealed to those who preferred to express their individuality rather than slavishly follow trends. Walter Van Beirendonck, who erupted onto the fashion scene in 1995, produced decidedly futuristic designs under his label W & LT (Wild and Lethal Trash).

Deliberately using fabrics developed by the very latest technologies, in violently contrasting colours, he produced clothes that were full of erotic and sadomasochistic references, touched with a caustic adolescent humour. His highly distinctive approach related to a resurgence of anti-fashion, but this time an anti-fashion with nothing in the least ethnic about its origins, instead based on science fiction that provided the inspiration for displays of such high-spirited provocation.

In Italy, Gianni Versace, with his brilliant, sexy, and colourful designs, and Dolce & Gabbana, with their superfeminine and fantastical style, broke away from the serious and sober-minded fashions that dominated during much of the Nineties. The British designer Vivienne Westwood produced many influential and popular collections in the early '90s, which included outfits inspired by eighteenth-century courtesans and the Marquis de Sade, with rounded hips, corsets, and platform heels.

The London-based designer Rifat Ozbek was also popular, particularly in New York and Milan. His youthful style, which mixed references to India, Africa, and his native Turkey with clever takes on historical clothing, was reminiscent of hippest nightclubs and the more outrageous street fashions of the time. Rap music was a prominent influence on popular and street fashion during the early- and mid-Nineties.

Followers of hip hop adopted huge baggy jeans, similar to those worn in American prisons, with big patterned shirts and heavy black shoes. The sports label Nike had great popularity and materials such as Lycra and Spandex were increasingly used for sportswear. Increasing eco-awareness and animal rights made even top couture houses such as Chanel introduce fake fur and natural fibers into their collections.

#### **FASHION DESIGN TODAY**

In the 2000s, as the future began to seem increasingly bleak, fashion, and indeed the Arts in general, looked to the past for inspiration, arguably more so than in previous decades. Vintage clothing, especially from the Sixties, Seventies, and Eighties became extremely popular and fashion designers often sought to emulate bygone styles in their collections.

The early 2000s saw a continuation of the minimalist look of the Nineties in high fashion. Later on, designers began to adopt a more colourful, feminine, excessive, and 'anti-modern' look. Name brands became particularly important among young people and many celebrities launched their own lines of clothing. Rap music had a considerable influence on popular fashion, these days less based on actual street wear and more on an idealisation of such.

For many of the own-label designers who emerged in the early years of the twenty-first century, financial factors became increasingly critical. Many new young talents found they now depended on investors and were always burdened by the risk that their partners, motivated by market realism and the desire for quick returns, would severely restrict their autonomy.

Most countries of a certain size have their own fashion industry, including Belgium, Spain, Portugal, India, Germany, and Australia. However, only five nations have established truly international reputations in fashion design. These countries are France, the United Kingdom,

the United States of America, Italy and Japan. Below are brief descriptions of the fashion industry in each country.

### **American Fashion Design**

The majority of American fashion houses are based in New York and Los Angeles, although there are also a significant number in Miami, and Chicago was once a centre of American fashion. American fashion design is dominated by a clean-cut, casual style, reflecting the sporty, health-conscious lifestyles of many American city-dwellers.

A designer who helped to set the trend in the United States for sport-influenced day wear throughout the 1940's and 50's was Claire McCardell. Many of her designs have been revived in recent decades. More modern influences on the American look have been Calvin Klein (known for classic coats and separates), Ralph Lauren (known for casually elegant clothes in natural fabrics), and Donna Karan (known for practical, sophisticated women's wear).

### **British Fashion Design**

The first fashion designer, Charles Worth, was a native of Britain, although he made his name in Paris. The majority of British fashion houses are based in London. The British fashion scene is known for unorthodox clothes, with a young market, and popular appeal.

Vivienne Westwood is one of the pioneers of the daring, youthful look which London is known for. Following in her wake, and turning out fresh ideas consistently, are John Galiano and Alexander McQueen. Other well-known names include Zandra Rhodes (known for fairytale clothes in original fabrics) and Bruce Oldfield (known for glamorous evening wear).

### **French Fashion Design**

The vast majority of French fashion houses are—and always have been—located in Paris, which was once not only the capital of French fashion but the capital of fashion worldwide. French fashion is traditionally chic and stylish,

defined by sophistication, skilful cutting, and smart accessories. Paris is the home of many great and influential couture houses, such as Chanel and Christian Dior, who stage exclusive fashion shows in their own salons.

Many other famous French designers show their work at the designer collections, which are held twice a year and command international attention. One of the best-known French designers, and a pioneer of ready-to-wear, is Yves Saint Laurent who has consistently turned out stylish, quality garments over many years. Karl Lagerfeld, although a German designer, has a very French approach. One of the major contemporary innovators of French fashion is Jean-Paul Gaultier, who designs unusual, witty clothes which stand apart from the main thrust of French style.

### **Italian Fashion Design**

The majority of the older Italian couturiers are based in Rome. However, Milan is seen as the fashion capital of Italy because many well-known designers are based there and it is the venue for the Italian designer collections. Italian fashions have a reputation for casual elegance and luxurious fabrics. Among the best-known and most exclusive names in Italian fashion design are Gianfranco Ferre (known for his boldly-cut, brightly-coloured clothes), Giorgio Armani (known for subtle, mannish style for both men and women), and Gianni Versace (known for his beautifully-cut leatherwear).

### **Japanese Fashion Design**

The majority of Japanese fashion houses are based in Tokyo. The Japanese "look" is loose and apparently unstructured. Colours are often sombre and subtle and the fabrics used are richly textured. Many of the most famous names in Japanese fashion now work in Europe or the USA, but the Tokyo designer collections are still a major international event.

Today's fashion design concepts may seem cutting edge and original, but almost all fashion and apparel design is borrowed from a different era's invention. Fashion design reflects the movements, thoughts, and cultural climate of a certain historical moment. When you become a fashion designer, it's important to remain invested in the political and artistic happenings around you, as fashion will ultimately behave as a reflection of thought. Fashion design school explores historical trends and teaches how to build upon vintage fashion and apparel design.

In today's fashion design jobs, you need to know as much about the market as you do textiles, colors and shapes. Even if you end up working for a high street apparel manufacturer, you are not designing uniforms. Most of us like to stamp our personality on our apparel by accessorizing, mixing, and matching. That's what today's fashion is all about, and the mass manufacture of today's designer fashion allows us to do it on a budget.

### 3

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## Theories of Fashion Change

Fashion acts as a sign, and activates forces of differentiation in terms of taste, social identity, and cultural capital. As such, it is used to create identity and differentiation. Fashion has normative power in setting standards and creating uniformity. It serves the accumulation of symbolic capital through conspicuous consumption, and it needs continuous innovation in order to keep up its distinctive capacity. Fashion is related to capitalism and the rise of mass production.

The relation of fashion and mass production is dialectic: Mass production allowed fashion to spread throughout society and to transcend class barriers, but on the other hand also depends on fashion as a motor for keeping up demand. Finally, fashion setting often appears to be related to elite groups, whereas on the other hand, fashion demand often emerges from groups whose position within society is characterised by a lack or loss of stability.

### THREE DIRECTIONAL THEORIES

The three directional theories of fashion change predict that fashion will either trickle down, trickle up, or trickle across consumer segments. Introduced at different times during the 20th century, these theories reflect not only a general understanding of fashion dynamics but also the specific marketplace conditions at the time they were proposed.

Each theory has been criticised and revised since its introduction but remains a valuable guide in explaining fashion leadership and predicting fashion movement.

### **Trickle-Down Theory**

Imagine a fashion observer living at the turn of the 20th century. How would he or she explain fashion? Looking backward from that vantage point, the observer sees that in the past fashion was dictated by the nobility who were leaders in all areas of fashionable behaviour by birthright, rank, and wealth.

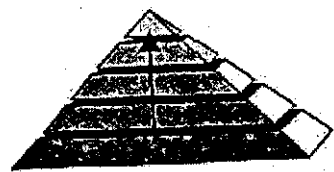
Fashion spread slowly downward through the class structure but never reached all levels. The lower classes did not have the income, access, nor the freedom to follow fashion's dictates. Looking around at his or her own time, the observer notices that fashion is still restricted to those at the top of the class structure-the rich and socially prominent.

The industrial revolution has made possible the building of great fortunes and the display of wealth through fashionable possessions including homes, furnishings, art, and handcrafted fashion. This period, roughly 1900 to 1914, is known as *la Belle Epoque* in France, the Edwardian period in England, and the Gilded Age in America. It was characterised by women wearing extravagant, elaborate fashions that required devotion, attention, and seriousness at both the acquisition stage and in wearing the clothes in everyday life.

Veblen was one such observer at the turn of the 20th century. He described the upper strata of the social system as the leisure class. Members of the leisure class displayed wealth in two distinctive ways, through conspicuous leisure and conspicuous consumption. A person who does not have to work for a living and participates in an extravagant lifestyle of travel, entertainment, and the pursuit of pleasure demonstrates conspicuous leisure.

**Direction**

Downward from elite class to next adjacent class

**Tempo/Speed**

Depends in ability of lower clas to see and copy

**Dynamics****Differentiation****Imitation****Source of fashion ideas**

Designers who propse innovation, elite as gatekeepers

**Source of Change**

limitators

Figure 1. Trickle-down theory of fashion change

Philanthropy, art collecting, acquisition of homes and furnishings, and apparel with expensive modes of production and materials demonstrate conspicuous consumption. In both these modes, wealth serves as the background for the activities that were the hallmark of the times.

Imagine a fashion observer in the early 1960s. How would he or she explain the fashion dynamics of the time? Nearly every characteristic of La Belle Epoque had changed. Women gained the vote in 1920 and now have more access to education and the world of work than ever

before. The United States fought two world wars, weathered the Depression in between, and fought to a standstill in the Korean conflict. At this time the United States is involved in a little war in a far-off place called Vietnam. Civil rights and integration are social issues being dealt with in the courts and in the streets. Mass communication has come of age. Television is a potent influence on the behaviour of American consumers. The great development era of department stores has ended, but the stores and other retail outlets have expanded the fashion market.

Mass production is in full flower and can provide fashion apparel at all price points. For the first few years of the 1960s, the trickle-down theory of fashion change seemed as relevant as ever. John F. Kennedy was in the White House and his wife Jacqueline, born into the affluent upper class, was an international style setter.

Jacqueline Kennedy wore clothing from American and European designers and her hairstyles, clothing, and accessories were widely copied by American women in all classes. With President Kennedy's assassination in late November 1963, that era came to an end. Jacqueline Kennedy would continue to be a style setter, but not on the same scale as during those early White House years.

Looking backward at the previous decades, a fashion observer would remember that fashion in the 1920s through the 1950s had an authoritarian flavour- one or two looks were considered fashionable and all other looks were not. In the late 1950s, the youth culture began to be felt and the teenager had been discovered as a market segment. With the baby boom generation in the teen years, there was a shift away from traditional forms and establishment dictates. The original form of the trickle-down theory of fashion change did not provide sufficient explanations for the fashions of the 1960s. The trickle-down theory of fashion change did not help the sophisticated marketer understand fashion behaviour in the 1960s. Instead, he

proposed a rival theory, the trickle-across theory of fashion change (the mass market or simultaneous adoption theory). Simply stated, the theory holds that fashion information trickles across horizontally within social strata rather than vertically across strata.

According to King, within a given fashion season consumers in all socioeconomic groups simultaneously have the freedom to select from a range of styles and this range is sufficient to satisfy personal taste. Rather than an elite introducing fashion ideas into society, King saw leadership within each social stratum and within each social group. In this view, personal influence plays the key role in the transmission of fashion information and two kinds of consumers are influential in popularising new looks:

1. *The innovators*—people who buy early, the earliest visual communicators of a season's styles.
2. *The influentials*—those who are frequently asked for advice and define appropriate standards within their interpersonal networks.

Three factors were essential for the emergence of a mass market mass production, mass communication and a growing middle class. Mass communication-magazines, newspapers, television, and movies-made style information available to all simultaneously.

Mass production made more looks available in any given season, offering the possibility of individual selection from among the many resources. Imitation and differentiation were still part of the dynamic because others would imitate innovators and influentials within their social strata and those fashion leaders would move to new looks.

Just as in the trickle-down theory of fashion change, designers play an important creative role. However, the gatekeepers had changed. Gatekeepers filter the many ideas proposed by designers and determine which will be

disseminated widely and which will be discarded. In the trickle-down theory of fashion change, the gatekeepers were the fashionable and affluent elite who could afford the time and effort to view and select from the designers' collections.

With mass media and mass production, a new set of gatekeepers rose to prominence—journalists, manufacturers, and retailers. The professional gatekeeper's job was to view the designers' collections and select the styles to be featured in the media and produced in mass quantities. The efficiency of mass production now enabled fashion ideas to be "knocked off" at all market levels within the same season, but that was not a new idea.

In 1931, *Life* reported on copies of the "Wally" dress, the \$250 Mainbocher wedding ensemble worn by Mrs. Wallis Warfield Simpson when she married the Duke of Windsor. The dress appeared as a sketch in *Women's Wear Daily* on May 26 and by June 13 was available in the upscale Bonwit Teller store on New York's Fifth Avenue for \$25. By early July it was featured in the window of a more moderately priced department store for \$16.95. One week later, it was on the racks of a "cash-and-carry" store for \$8.90.

By 1960, the knockoff had become the normal way to do business in the fashion industry. The practice began in earnest after World War II when discounters like Ohrbach's purchased couture models at a prearranged price and made line-far-line copies in the exact fabric, even advertising them with the name of the original couture house. The practice of copying became an entrenched convention within the industry. Communication and production technology continued to speed up the process until by the 1990s, manufacturers could preempt designers by making a sample of a dress shown on the runway overnight and deliver it to the stores ten days later, a feat that the designers could not duplicate.

### **Trickle-Up Theory**

Imagine a fashion observer in the late 1960s. This time the focus is not on the apparel industry as in the trickle-across theory, but on a new source of inspiration and fashion leadership. Youth quake is underway on both sides of the Atlantic as young people discover the expressive qualities of fashion. The symbol of the decade—the miniskirt—emerges at the midpoint of the sixties.

It is a time when music, art, television variety shows, and movies all move to the youthful beat. The Beatles—John, Paul, George, and Ringo—revolutionise music, men's fashion, and the movies, along with the scruffier Rolling Stones. A new youthful sensibility emerges and is expressed in the hippie and the flower child looks. Women become more militant in their demands for equality and express their frustrations with social restrictions by burning bras and demonstrating in the streets. Long hair, bare feet, and nudity become socially acceptable. Unisex and ethnic looks are highly valued badges of changing attitudes. Adults, the former arbiters of fashion, now take their fashion cues from the young.

Against this backdrop, Field proposed a new theory of fashion change he called the status float phenomenon (commonly known as the trickle-up theory of fashion change). According to this theory, higher status segments with more power imitated those with lower status—that is, status markers were floating up the status pyramid rather than trickling down or across it. To support this view, Field cited specific examples from the culture. Some of his examples sound quaint and condescending today but were relevant and ground breaking at the time

#### *Black is Beautiful*

Negro music and dance had a strong influence on popular culture. In relationship to fashion, Field pointed out the increasing use of Negro models, actors, and celebrities on

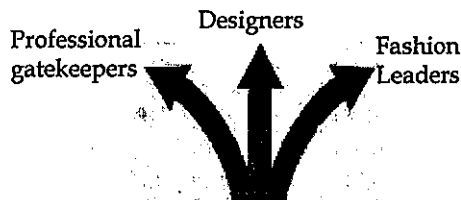
television, in magazines and advertising, and as spokespersons for products aimed at a broad audience. Afro prints in fabrics were featured in fashion magazine editorial pages. The popularity of hairstyles associated with African Americans could be seen in the wigs that allowed anyone in society to emulate the styles. Field suggests that the channels of jazz and youth culture moved "Negro" fashion into the consciousness of a wider audience.

***Direction***

Status markers trickle up from consumer stylists and subcultural groups

***Tempo/Speed***

Depend on the sensitivity of fashion gatekeepers and visibility of the subculture groups

***Dynamics******Source of fashion ideas***

Aesthetic codes of subcultural groups

***Source of Change***

Instabilities in age gender, ethnicity and appearance

*Figure 2. Trickle-up theory of fashion change*

### *Youth Culture*

According to Field, extremes in fashion originally adopted by youth to express their rebellion against the older generation were adopted and worn by the middle aged. In a specific example, he cited the case of formerly ultraconservative automotive executives who were "sporting sideburns, squaretoed buckled shoes, short, cuff less pants, wide, flashy polka-dot ties, sport coats, coloured shirts, and even sport shirts" by 1969. Field suggested that these executives were wearing fashions pioneered by the teenage and college aged crowd.

### *Blue Collar Influence*

Field saw the camping craze and the buying of pickup trucks by middle-class consumers as a case of typically blue-collar pursuits trickling up the status pyramid. Additionally he cited the use of garish male clothing and bright colours on automobiles as a shift from the conservative tastes of the upper class to the tastes of the lower class. He cited the adapting of work clothes jackets, Levi's, boots, and the sleeveless undershirt-into more widely popular casual clothing styles for men as another case of status float.

### *Sexual Revolution*

Women had freely borrowed from men's fashion at least since Chanel popularised the look in the 1920s. Field cites a reverse case of borrowing: by 1969, college men and entertainers had adopted the flare pants, a style originally worn by women earlier in the decade.

### *Style Leadership*

Field cited the high heel, the use of rouge and lipstick, and women smoking cigarettes as examples of customs that originated in the subculture of prostitutes and spread over the decades to middle and upper class women. Field concluded his article with a call for more research to

document the extent of the status float phenomenon and its variations.

The trickle-up theory provides the cornerstone of today's view that street fashion is a laboratory for fashion change. The concept carries with it the essence of outsider sensibility. Simmel was aware of the connection between prostitutes and fashion except that he used the more refined term "demimonde" to refer to these fashion pioneers. He pointed out that an uprooted existence outside the bounds of acceptable society produced a "latent hatred against everything that has the sanctions of law" and that this hatred found expression in striving for new forms of appearance. It is this context of being dressed up, hanging out, and loosing attitude that finds expression in clothes, hairstyles, makeup, tattoos, body piercing, and accessories.

Today's fashion world takes the importance of street fashion for granted. Again, the motivation for differentiation drives subcultures where new looks are created. Members of these subcultures adopt specific aesthetic codes that differentiate them from other subcultures and from the mainstream. Imitation may occur between social groups but the importance of street fashion for the fashion industry is in the visual inspiration it provides for designers and other fashion gatekeepers such as journalists, stylists, and photographers.

### **Vertical Flow Model**

Behling D. saw common underlying themes in the two vertical theories of fashion-trickle down and trickle up and sought to integrate them into a single predictive model. The model attempts to explain fashion change between 1920 and 1985 using the median age of the population and the economic health of the country as factors. When she arrays the decades on the horizontal axis and median age of the population in years on the vertical axis, a regular pattern appears.

During time periods when the median age was low—the 1920s, and the mid-sixties to mid-seventies—fashion looks trickled up from youthful consumers to the market as a whole. During time periods when the median age was higher, fashion tended to trickle down from the older, wealthy, and influential strata. Behling's model shows a relationship between the median age of the population, fashion role models, and the direction of fashion flow. Events that can alter this directional flow are a depressed economy or curtailment of fashion by governmental decree, as in rationing.

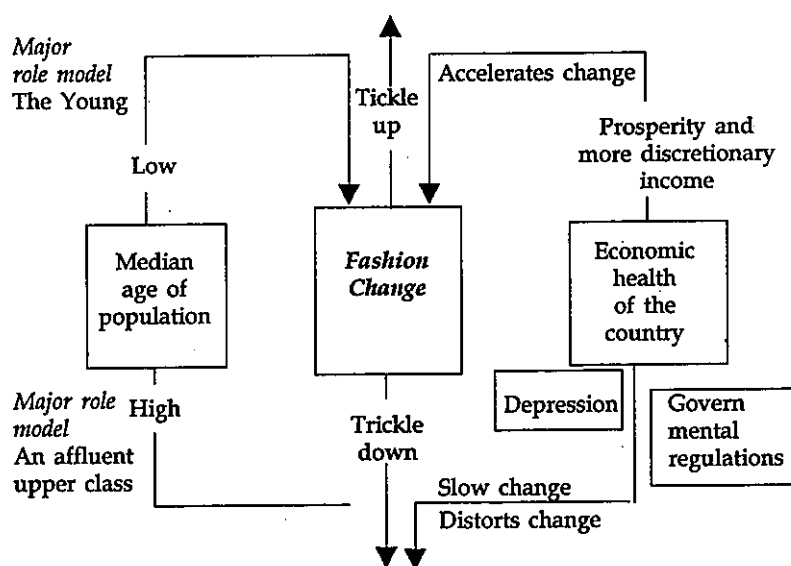


Figure 3. Behling's single predictive model

This model can be applied to current demographic conditions. Because the median age is expected to rise as baby boomers enter middle age, the model suggests that fashion influence should trickle down from an older, affluent, and visible class at the turn of the millennium. After that, the large echo-boom generation will lower the

median age, which could reverse the direction of fashion change.

The real predictive power in a theory derives from its ability to clearly establish the source, the mechanism, the tempo, and the direction of fashion change. As with the trickle-down and trickle-across theories, the concept of time lag plays an important part in the dynamics of fashion as it trickles up from the street corner, to the runway, and then to Main Street. Looks developed, as aesthetic codes for members of subcultural groups are usually too radical to be accepted instantly into mainstream fashion. It takes time for consumers' sensibilities to adjust to the proposed look and incorporate it into their own social setting. This time lag may be as short as a year or as long as several decades. The forecaster can estimate the path and time sequence by evaluating the degree of adjustment required, the visibility of the innovation to consumer segments, and the match between the symbolism of the look and the attitudes of the target consumers.

### **Time Lags and Idea Chains**

The concept of time lags apparent in each of the directional theories of fashion change is an important issue in fashion forecasting. The technology of mass communication and mass production that makes possible the simultaneous adoption of a fashion across all market segments does not ensure such an outcome. Instead, the process often includes a time lag during which consumers become more aware, interested, and receptive to the new fashion—a trickle-down process. Street looks go through stages of modification that lead to wider acceptance.

Polhemus traces the path of the black leather motorcycle jacket from a functional beginning to a World War II designation of bravery and daring when worn by pilots, to a symbol of rebellious youth produced primarily by small, family-owned shops in off-Main Street locations in the late 1950s.

Immortalised in the movie *The Wild One* by screen icon Marlon Brando, the garment was still not acceptable in Main Street society. Only gradually did the black leather motorcycle jacket become normal everyday wear through the seventies and eighties. Helping the look gain popularity was its adoption by visible fashionable elite-rock musicians from Jim Morrison to Bruce Springsteen to George Michael. Fashion-forward designers known for street-inspired fashion, such as Katharine Hamnett and Jean-Paul Gaultier, first introduced the look to the runway. Designers such as Claude Montana, Thierry Mugler, and Gianni Versace further appropriated it into high fashion. In the designer version, the look was then available to professional gatekeepers for dissemination through mass media and mass production.

In the history of this one style, all three directional theories of fashion change act at different stages. First the style moves from a street fashion for a particular subculture to diffusion among other outsider groups. Then it is adopted by the visible elite of rock musicians, appropriated by designers, and presented on the runway. Knockoffs make it available to all market segments. Mass communication aids its acceptance by mainstream consumers. At each stage there were opportunities for fashion forecasters to recognise and map the process.

In a 1992 Newsweek cover story on the cultural elite, an accompanying graphic introduced the concept of an idea chaina set of linked events that move a phenomenon from a subculture to mainstream. The subject of the magazine's exercise was rap music. The chain began in 1968 when a West Bronx disc jockey invented hip-hop. The style was elaborated on during the 1970s with the addition of break-dancing and the first small record labels specialising in this form of music. By 1981, the new-wave band Blondie had a rap song as a No.1 hit.

During the mid- and late 1980s, collegiate rappers, corporate record companies such as Columbia, and MTV

took rap to the middle-class consumer. The 1990 film *House Party* further popularised the hip-hop idiom, and the sitcom *Fresh Prince of Bel Air* brought rap to weekly prime time TV. No single event or influential celebrity or corporate sponsor was sufficient to move the idea along the chain. Instead, it took the entire chain of events played out over time.

In the same way, a single directional theory of fashion change is sufficient only to explain particular links in the chain, not the whole timeline as an idea moves from source to wide public acceptance. A forecaster in New York tuned into the right radio station in the late-1960s might have recognised rap music as a trend and begun considering the marketing potential. But there were other sightings throughout the 1970s and 1980s that offered the same opportunity to participate in the full-blown mass acceptance of the style in the early 1990s.

#### **FASHION IN THE SOCIOLOGICAL TRADITION**

From the turn of the century, sociologists have emphasised fashion as a specific type of social process. Thorstein Veblen in 1899 and Georg Simmel in 1904 were among the first to relate fashion to the social position of fashion actors and to social differentiation and integration-arguments that remain among the most prominent explanations of fashion until today. Other explanations, like the one developed by Blumer, follow a more economic logic in explaining fashion supply and the processes of collective selection among fashion buyers, which finally lead to the emergence of fashion, or tend to focus on the accumulation of cultural capital through the definition and recognition of the fashionable, like the analysis of the fashion field developed by Bourdieu.

#### **Theory of the Leisure Class**

The idea of fashion as a result of conspicuous consumption goes back to Thorstein Veblen and his *Theory of the Leisure*

class, first published in 1899. In this study, Veblen criticises the lifestyle of the upper classes and shows that ostentatious consumption and waste have become symbols for wealth and social status. He depicts a society based solely on economic principles, private property and individualism, and in which conspicuous leisure and consumption mark an individual's adherence to a new social class of idle owners of capital who appropriate income without having to work themselves.

For Veblen, instincts are the driving forces for human actions and attitudes. In *Theory of the leisure class*, Veblen portrays an upper class who struggles for social distinction within, and whose lifestyle is imitated by the lower classes. For Veblen, fashion therefore develops on two levels: It emerges through innovation within the upper classes who continually create new forms of apparel, ornament, and dress ever more sophisticated and expensive in order to reaffirm the place they occupy within their own social space. Fashion spreads through imitation as the lower classes start imitating the upper classes' behaviour.

Veblen holds three principles responsible for the emergence and the dynamic of fashion: The first principle states that members of the leisure class construct their own social status compared to rival members of the same class through 'conspicuous waste'. In addition, they differentiate themselves from the working classes through the 'principle of conspicuous leisure', and finally act in accordance with "a series of imperatives to change one's garments as soon as they are no longer 'up to date'"

### **Fashion as a Social Form**

In 1904 and 1905, a few years after Veblen published his *Theory of the leisure class*, Simmel outlines a theory in which he also relates fashion to class structure. Simmel does not critique the leisure class, which, in the eyes of Veblen, wasted its excessive income in conspicuous leisure; he prefers to explain fashion through the notions of social

distinction and integration, which, according to Simmel, represent two fundamental motives for individual action:

The whole history of society is reflected in the conflict, the compromise, the reconciliations, [...] that appear between adaptation to our social group and individual elevation from it.

Fashion represents a central social process insofar as it combines social distinction and adherence. The dynamic aspect of fashion emerges from a process in which elite groups (typically, but not necessarily, social classes) are imitated and subsequently create new fashions in order to keep up demarcation.

Fashion is the imitation of a given pattern and thus satisfies the need for social adaptation; it leads the individual onto the path that everyone travels, it furnishes a general condition that resolves the conduct of every individual into a mere example.

At the same time, and to no less a degree, it satisfies the need for distinction, the tendency towards differentiation, change and individual contrast. It accomplishes the latter, on the one hand, by the change in contents-which gives to the fashions of today an individual stamp compared with those of yesterday and of tomorrow-and even more energetically, on the other hand, by the fact that fashions are always class fashions, by the fact that the fashions of the higher strata of society distinguish themselves from those of the lower strata, and are abandoned by the former at the moment when the latter begin to appropriate them.

The link between fashion dynamics and class differentiation is probably the most prominent aspect in Simmel's theory of fashion. Fashion emerges as higher classes choose distinctive signs in order to differentiate themselves. As lower classes tend to imitate higher ones, the members of the higher classes need to recreate class segmentation through a new differentiation, etc.

Copying and new demarcation efforts between social classes are the driving forces in the fashion process. Even though social integration and differentiation appear to be universal features of human society, the multitude of expressions fashion takes today is related to modernity. Whereas in a traditional, stable society, social differences can only be displayed in a limited number of ways, modern society is characterised by a multiplication of opportunities for emphasising differences.

Simmel describes fashion as the prototype of what he calls a "social form", in other words, a stable structure that emerges from the plurality of social facts. Even though its contents may change, the structure itself remains the same. It is not the content of any particular fashion that is important, but the fact that something is recognised as being fashionable. A particular fashion therefore does not need rational justification.

For Simmel, being transitory and thus conveying a "stronger feeling of the present" is one of the main characteristics of a particular fashion. However, Simmel limits the term 'fashion' to items that appear to be vanishing and only of temporary nature:

In the practice of life anything else similarly new and suddenly disseminated is not called fashion, when we are convinced of its continuance and its material justification.

Fashion is paradoxical in nature as it provides at the same time individual dissociation and group cohesion. These two functions are fundamental to fashion. For Simmel, there is no fashion if one of the two conditions is not satisfied. On the imitation side, fashion provides depersonalisation. An individual acting in a fashionable way does not only act as an individual but his or her acts function as representations of a social class and its distinctive features. On the other hand, differentiation is provided through changing contents over time as well as through the constant reproduction and provision of class differentiation. As a result, fashion creates a state which

Simmel calls "relative individualisation", and in which the individual differentiates itself through adoption of the standards of a distinctive group.

### **Fashion as a Process of Collective Election**

More than sixty years after the first publication of Simmel's theory of fashion, Herbert Blumer went a step further in proposing a general theory of fashion. Blumer supports Simmel's idea of fashion as a social form, but he modifies the social role of the elite. He recognises fashion as a social phenomenon in its own right that exists to some extent independently from deliberate fashion setting activities. In this perspective, the role of the elite or avant-garde becomes more complex. For Blumer, the elite is not determined outside the fashion process, but it becomes an elite because its members are the first to sense the direction in which fashion will develop.

For Blumer, fashion has become one of the central mechanisms for creating order in modern society, and in this sense he criticises those authors who either restrict fashion to adornment or present it as socially inconsequential, aberrant or irrational. As has been pointed out above, Blumer defines fashion as a "continuing pattern of change in which certain social forms enjoy temporary acceptance and respectability only to be replaced by others more abreast of the times".

Fashion does not operate on a base of rationality, i.e. it can, but it does not need to, recur to utility or superior merit for receiving social approbation. It emerges through a social selection process that mirrors the general direction and tendencies of collective taste. With regard to Simmel, Blumer criticises the traditional link of fashion to class structure. He acknowledges Simmel's theory because it highlights the fact that fashion requires a certain type of society with a focus on prestige and enabling the essence of fashion, i.e. a process change. On the other hand, he states that relating fashion to class struggle "does not fit the operation of fashion in our contemporary

epoch with its many diverse fields and its emphasis on modernity".

Blumer discusses four features of the fashion mechanism. First, fashion is marked by its historical continuity or, as Blumer puts it, "new fashions are related to, and grow out of, their immediate predecessors". Out of this historical sequence of fashion emerges a line of continuity which Blumer calls a "fashion trend". Of special interest to the researcher are the terminal points of fashion trends as they typically mark a period of experimentation in various directions of potential fashion development. Thirdly, fashion is related with modernity, it always reflects the "spirit of the times".

The most distinctive, but also the most vague element of Blumer's theory of fashion is collective taste. Collective taste functions as a selector for the acceptance or rejection of ideas, and as a formative agent for innovation. Blumer sees taste as a product of experience. Collective taste therefore develops among "people thrown into areas of common interaction and having similar runs of experience".

Blumer's general theory of fashion builds on the idea of a collective selection process. This process involves a fashion elite as well as potential fashion buyers, innovators, leaders, followers and participants. It is governed by "changes in taste and sensitivity". Through "intense immersion", shared experience and a common sense of their field, fashion buyers develop a common taste and a shared understanding of the directions in which fashion is heading. The fashion elite is seeking to gain adoption of its creations and is eager to "develop an intimate familiarity with the most recent expressions of modernity". Blumer inverts Simmel's argument of a fashion elite which creates fashion in order to differentiate itself:

It is not the elite which makes the design fashionable but, instead, it is the suitability or potential fashionableness of the design which allows the prestige of the elite to be

attached to it. The design has to correspond to the direction of incipient taste of the fashion consuming public. The prestige of the elite affects but does not control the direction of this incipient taste. We have here a case of fashion mechanism transcending and embracing the prestige of the elite group rather than stemming from that prestige. [...]The efforts of an elite class to set itself apart in appearance takes [sic!] place inside the movement of fashion instead of being its cause.

Theorising about fashion is almost naturally related to accounting for the role and function of social elites. Through inclusion and exclusion it both relies on elite groups which create fashion in their effort to keep up differentiation—this is the way Simmel turns the case—and in the same moment produces, respectively reproduces the existing elites through mimetic behaviour—this is the Blumer side of the argument. Simmel and Blumer look at elite production and reproduction from two different points of view. For Simmel, the elite and the corresponding class differentiation is pre-existing while in Blumer's theory the elite not predetermined but constituted through the fashion process itself. Nevertheless, their approaches appear to be complementary because they focus on different aspects of the elite/fashion relation.

From a point of view that focuses on elite reproduction, the differentiation provided by fashion appears as an important mechanism for reproduction. From a theoretical point of view which looks at fashion as an ongoing, institutionally embedded process, it becomes clear that fashion, in a situation in which a number of fashion institutions already exist, tends to create its own logic of the development in which some groups—typically those who already occupy elite positions—are (re-)attributed an elite status because they are the first to “sense” the direction in which modernity tends to develop.

From a sociological point of view of course, the “sensing” capacity of the “new” fashion elite cannot be understood as an outcome of individual traits of character,

genius, etc. alone. It rather mirrors the more subtle side of social reproduction in which the individual traits that enable the elite-to-be to access its role are conveyed through a number of institutions which are related to specific conditions of social class or other structuring elements in the social space.

### **Struggle for Dominance in the Fashion Field**

In the terms of Pierre Bourdieu, fashion can be interpreted as a code that allows for social distinction and activates forces of differentiation in terms of taste, social identity, and cultural capital. In this sense, Finkelstein notes that "fashion is an organisation of knowledge based on restricted access to goods and services", and that the ability to recognise the fashionable reflects an actor's cultural capital. In order to clarify the enjeux, i.e. what is at stake, in intellectual production, Bourdieu provides an analysis of the field of haute couture, which he considers structurally equivalent to the field of cultural production in general. For Bourdieu, the fashion field can be characterised by the struggle between dominating and dominated actors, and new entrants.

The ultimate force for the functioning of the fashion field is the faith of all actors in the creations of the field. With reference to Mauss' writing on magic, the functioning of the fetish, and the role of croyance collective, Bourdieu states the necessity of a silent and implicit collusion of all actors in the field.

### **FASHION AND SOCIAL CHANGE**

The occurrence of fashion is related to change. On one hand, fashion acts as an indicator for changes in the economic structure, in norms and values, and in the static of existing social stratification. It is in this sense that Bell speaks of fashion as a social mirror, and Blumer of fashion reflecting the 'spirit of the times'. On the other hand, fashion itself acts as a motor for change.

In directing consumption and unfolding role models, fashion contributes to forging the social situation in which individual actors orient their choices for consumption, imitation or objection. Before reaching a particular point in time, fashion is self-reinforcing; its simple existence reinforces adoption. More difficult to explain, however, is why after this point, fashion fades out, and a fashionable item becomes de-moded, or, in Simmel's words, "gradually goes to its doom".

The study of fashion should therefore also strive for explaining when and why the turning point occurs, and what differentiates the study of fashion from the traditions in the study of innovation diffusion. Simmel's view of fashion as a social form points to a second characteristic of fashion, which is seemingly opposed to the notion of change. It is the idea that fashion reproduces and stabilises the existing social order.

In this perspective, fashion acts as a medium or platform for a type of change under elite control that eventually affirms and reproduces the existing social structure. This idea also appears in Bourdieu's idea of various actors whose ongoing struggle for domination, albeit dependent on an overall respect of an existing set of 'rules of the game', constantly reaffirms the order of the field as a whole.

On an individual level, fashion not only acts as an external constraint to choice. Its dynamics also depend on micro level adoption, reproduction, and abandon. Whereas the occurrence of fashion on the macro level is relatively easy to observe (at least in an ex post perspective), micro level processes of fashion are closely related to other socialpsychological mechanisms. The individual actor's dependence of and contribution to fashion on a macro level is in many cases not evident for the actors themselves.

The micro-level explanation of fashion functions typically starts with the individual's will to distinguish

itself, a will which is shared by others and thus leads to copying, imitation, and the emergence of fashion as a "phenomene de contagion imitative". Another function, which goes beyond assuming a universal human need of distinction appears when we, again, relate fashion to modernity.

In his discussion of Simmel and the role of fashion in a modern, urban world, Finkelstein, for example, argues that fashion serves to protect individuals from a sense of being ground-down, levelled out and overwhelmed by the overarching socio-technological mechanism that is the metropolis. According to this position, fashion can be seen as a protection mechanism that gives an individual a sense of membership in a particular group and thus provides an orientation in a society that has lost the markers and attributes which had provided orientation in traditional society. This function is underlined through the capacity of fashion to differentiate, i.e. to draw lines of distinction between the members of different fashion communities.

Blumer sees fashion as the outcome of a process of collective selection among fashion alternatives that are presented by an elite of fashion creators. According to Blumer, this type of collective selection among a variety of alternatives typically emerges in situations in which traditional criteria for evaluation have become obsolescent, and in which fashion as a "process in which collective judgement of what is proper and correct" serves to set new, albeit temporary, guidelines.

Another important aspect is related to this argument: In giving an individual the sense of, and the concrete fashion item as a means for social differentiation, and together with the idea of free choice propagated by the dominant ideology of economic liberalism, fashion provides an individual with a fiction of manageability and the possibility to create its 'own' expression of personality.

The paradox of fashion as a collective phenomenon which at the same time tends to emphasise individuality

has been described by Simmel who acquaints the character of the fashion follower with "lack of personal freedom", "envy" and "dependence", but also states that fashion furnishes an ideal field for individuals with dependent natures, whose self-consciousness, however, requires a certain amount of prominence, attention, and singularity. Fashion raises even the unimportant individual by making him the representative of a class, the embodiment of a joint spirit.

The heterogeneous nature of fashion on the micro level stems from the fact that fashion not only shields the individual from an overall loss of orientation, but also makes the individual different from others, and exposes it as the representative of a distinct elite or protest group. It is in the sense of this creation of individuality through adherence to a fashion group that Simmel speaks of "relative individualisation".

Moreover, fashion appears to be endowed with the paradoxical virtue of duration. As Simmel argues, in contrast to [the] characteristic, however, fashion possesses this peculiar quality, that every individual type to a certain extent makes its appearance as though it intended to live forever. [...] A peculiar psychological process seems to be at work here in addition to the mere bias of the moment. Some fashion always exists and fashion per se is indeed immortal, which fact seems to affect in some manner or other each of its manifestations, although the very nature of each individual fashion stamps it as being transitory. The fact that change itself does not change, in this instance endows each of the objects which it affects with a psychological appearance of duration.

Duration as an explicit or implicit attribute of fashion functions seems to be paradox when we consider the fact that fashion is commonly associated with the futile, the ephemeral, and the superficial. The necessity of endowing fashion with the fiction of duration, however, becomes clear when we consider the role of fashion as an agent for

social distinction and as a basis for collectively shared evaluation.

As long as society itself is thought of in terms of duration, any system for ordering society has to be endowed with endurance. It is only within a thoroughly postmodern society, in other words, when the notion of society itself has lost all of its 'modern' sense, and fashion in consequence its signification for creating social orientation through distinction and integration, that the fashionable can be fully acquainted with the playful and the arbitrary. In such a world, however, fashion as a collective phenomenon could only occur as an outcome of a genuine human inclination towards imitation, and asking for any particular (social) function of fashion would have lost all of its sense.

Different explanations are put forward in the emerging literature on fashion phenomena in management. For Abrahamson, fashion dynamics result from imitation, they mirror changing norms of rationality and progress as well as external influences on fashion demand. Alvarez sees the bases for fashion in the interplay of social actors, legitimisation and adequate organisations, as does Huczynski who speaks of a "conscious and unconscious collusion between managers as consumers of management ideas and consultants of suppliers of such ideas". Kieser adopts the perspective of an arena and argues that the present actors try to attract an ever-wider public by creating new fashions.

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## Fashion in Fabrics

The production of textiles is an ancient craft, whose speed and scale of production has been altered almost beyond recognition by industrialisation and the introduction of modern manufacturing techniques. However, there is little difference between ancient and modern plain weave, twill or satin. Many textiles have been in use for millennia, while others are recent inventions. The range of materials has increased in the last century with the introduction of artificial fibers in the 1920s and 1930s.

Textiles have an assortment of uses, the most common of which are for clothing and containers such as bags and baskets. In the household, it is used in carpeting, upholstered furnishings, towels, covering for tables, beds, and other flat surfaces, and in art. In the workplace, it is used in industrial and scientific processes such as filtering. Miscellaneous uses include flags, tents, nets, cleaning devices, and transportation devices such as balloons, kites, sails, and parachutes.

Textiles used for industrial purposes, and chosen for characteristics other than their appearance, are commonly referred to as technical textiles. Textiles can be made from many materials. These materials come from four main sources: animal, plant, mineral, and synthetic. In the past, all textiles were made from natural fibres, including plant, animal, and mineral sources. In the 20th century, these

were supplemented by artificial fibres made from petroleum.

Textiles are made in various strengths and degrees of durability, from the finest gossamer to the sturdiest canvas. The relative thickness of fibres in cloth is measured in deniers. Microfiber refers to fibers made of strands thinner than one denier.

## **TYPES OF TEXTILES**

### **Animal Textiles**

Animal textiles are commonly made from hair or fur. Wool refers to the hair of the domestic goat or sheep, which is distinguished from other types of animal hair in that the individual strands are coated with scales and tightly crimped, and the wool as a whole is coated with an oil known as lanolin, which is waterproof and dirtproof. Woollen refers to a bulkier yarn produced from carded, non-parallel fibre, while worsted refers to a finer yarn which is spun from longer fibres which have been combed to be parallel. Wool is commonly used for warm clothing. Cashmere, the hair of the Indian cashmere goat, and mohair, the hair of the North African angora goat, are types of wool known for their softness.

Other animal textiles which are made from hair or fur are alpaca wool, vicuna wool, llama wool, and camel hair, generally used in the production of coats, jackets, ponchos, blankets, and other warm coverings. Angora refers to the long, thick, soft hair of the angora rabbit. Silk is an animal textile made from the fibers of the cocoon of the Japanese silkworm. This is spun into a smooth, shiny fabric prized for its sleek texture.

### **Plant Textiles**

Grass, rush, hemp, and sisal are all used in making rope. In the first two, the entire plant is used for this purpose,

while in the last two, only fibres from the plant are utilised. Coir (coconut fibre) is used in making twine, and also in floor mats, doormats, brushes, mattresses, floor tiles, and sacking.

Straw and bamboo are both used to make hats. Straw, a dried form of grass, is also used for stuffing, as is kapok.

Fibres from pulpwood trees, cotton, rice, hemp, and nettle are used in making paper.

Cotton, flax, jute, and modal are all used in clothing. Pina (pineapple fibre) and ramie are also fibres used in clothing, generally with a blend of other fabrics such as cotton.

Acetate is used to increase the shininess of certain fabrics such as silks, velvets, and taffetas.

Seaweed is used in the production of textiles. A water-soluble fiber known as alginate is produced and is used as a holding fiber; when the cloth is finished, the alginate is dissolved, leaving an open area.

### **Mineral Textiles**

Asbestos and basalt fiber are used for vinyl tiles, sheeting, and adhesives, "transite" panels and siding, acoustical ceilings, stage curtains, and fire blankets.

Glass fiber is used in the production of spacesuits, ironing board and mattress covers, ropes and cables, reinforcement fiber for motorised vehicles, insect netting, flame-retardant and protective fabric, soundproof, fireproof, and insulating fibers.

Metal fiber, metal foil, and metal wire have a variety of uses, including the production of cloth-of-gold and jewellery.

### **Synthetic Textiles**

All synthetic textiles are used primarily in the production of clothing.

Polyester fiber is used in all types of clothing, either alone or blended with fibres such as cotton.

Acrylic is a fibre used to imitate wools, including cashmere, and is often used in replacement of them.

Nylon is a fibre used to imitate silk and is tight-fitting; it is used in the production of pantyhose.

Lycra, spandex, and tactel are fibres that stretch easily and are also tight-fitting, and are used to make activewear, bras, and swimsuits.

Olefin fiber is a thermal fiber used in activewear, linings, and warm clothing.

Lurex is a metallic fiber used in clothing embellishment.

Ingeo is a fiber blended with other fibres such as cotton and used in clothing. It is prized for its ability to wick away perspiration.

#### **FASHION IN TEXTILES**

As people walk down the aisles of a store or move among the clothing racks, they reach out to caress the shoulder of a jacket or squeeze the sleeve of a sweater. This "petting" behaviour shows the power of touch to connect consumers to textile products. Fabrics range from slick surfaces like leather and futuristic plastic to softer surfaces like cashmere, from flat weaves to heavy textures like boucle, from the solid structure of flannel to the web-like open structure of crochet. Clothing has been called "the second skin" in recognition of its intimate connection with people's physical and psychological comfort. So, it is not surprising that news about which fabrics are "in" or "out" plays such a prominent role in forecasting fashion.

Newness is a fleeting thing for textile makers. Technology makes it faster to knock off textile products. Companies who want to compete on the basis of original design have to turn out designs quickly because copies

quickly dilute their specialness. In some fashion seasons, fabrics serve as background and the news is in the way they are cut or coloured. Other seasons feature a strong fabric story-the shine of silk, the cling of matte jersey, the stretch of spandex, and the texture of tweed. Sometimes the focus is on clean-cut minimalism and other times on a strong trim story-the femininity of lace, the handcrafted look of crochet, or the accent of beading. Seasons go by when few prints are featured and then painterly prints, romantic florals, or bold geometrics take centre stage.

Trends in fabric move in the same currents that shape and reshape fashion. Even something as basic as fiber experiences waxing and waning periods of popularity. Natural fibers once shunned because of the care requirements and their wrinkled, rumpled appearance were lifted by the same wave that heightened the popularity of casual wear. Polyester, a popular fiber choice in the 1970s, became unfashionable in the 1980s but rebounded in the mid-1990s as designers like Betsy Johnson, Mary McFadden, and Norma Kamali rediscovered its performance qualities and dubbed it "modern". At the same time that fashion promotes new fibers and fabrics, it also acts to modify basics. The popularity of casual looks encouraged denim manufacturers to create lighter weight denim better suited than basic denim weights to mixing and matching with other fabrics. Denim itself is prone to cycles of extreme popularity and then eclipse. In 1999, denim was stronger than it had been in ten years, partly because it fit the differing tastes and lifestyles of teens and their parents, and partly because denim was reinvented as fashionable by designers. Tom Ford of Gucci got lots of press when he showed a neo-hippie version of ripped and beaded jeans decorated with feathers in 1999.

Changes in cultural indicators reverberate in fashion choices. When the economy is strong and consumers feel confident, these factors combine to favour upscale clothes

in luxury fabrics like wool. Increased interest in women's wool knitwear boosted demand from 19 million pounds in 1992 to 33 million pounds in 1998. Deep concerns about the environment coincided with the development of ecologically friendly fibers such as organically grown, naturally coloured cottons and lyocell, a biodegradable fiber manufactured from a renewable source (wood pulp) in a process during which the chemicals are recovered and recycled. Interest in the environment also reverberated in styling when garments with the appearance of being in their "natural state" became fashionable. That meant that colour variations previously unacceptable were now in demand.

#### INNOVATION IN TEXTILE DEVELOPMENT

Designers choose fabrics very early in the product development cycle because the attributes of the fabrics are linked to the silhouette and mood of the collection. Some designers have a signature fabric that they constantly use season after season, such as Geoffrey Beene's jersey or Giorgio Armani's wools. Other designers use different fabrics from group to group, season to season. A few designers such as Issey Miyake, Muccia Prada, and Jil Sander become known for their experiments with fabrications-experiments that influence other designers in their selection and use of fabrics.

Just as fashion capitals-London, Milan, Paris, and New York become identified with a certain approach or aesthetic, so certain parts of the world are known for the fabrics they produce. Designers in all the fashion capitals rely on the artistry of Italian fabrics, especially wools, in each season's collections. The link between fabric development and the fashion runway has proven advantageous for Italian spinners, dyers, and weavers who have a 200-year history of small family firms dotting the Italian landscape in linked networks. American manufacturers cannot match the Italians in the quality and

craftsmanship of wools, but American manufacturers have the lead when it comes to developing synthetic fibers.

High-tech fabrics with novel properties are beginning to move from sports gear and rugged adventure wear to high fashion and street wear. Known as technical fabrics or performance fabrics, these fabrics can cost up to 30 percent more than nontechnical ones but deliver engineered characteristics.

One of the first breakthrough fabrics was DuPont's Lycra spandex, now a regular component of jeans and sexy dresses. Although the roots of the technical fabrics are in survival gear and high performance sports equipment, the new fabrications are specifically styled for the fashion market, and companies such as Polo, Nautica, and Jones New York are using and promoting these modern fabrics.

There are three general categories of fiber:

1. Natural fibers that originate from animals (alpaca, angora, camel's hair, cashmere, mohair, silk, vicuna, wool) or plants (cotton, linen, and hemp).
2. Man-made fibers manufactured from chemicals (acrylic, spandex, nylon, polyester, and polyolefin).
3. Manufactured fibers chemically engineered from biological raw material such as wood pulp (rayon, lyocell, and acetate).

In the past, the development cycle for fabrics depended on such things as the growing season for cotton or the shearing season for wool. With the advent of man-made and manufactured fibers that can be produced at any time, these earlier seasonal considerations became less important.

In today's market the most important consideration is the consumer's willingness to buy, a period that now closely coincides with the use of the apparel. To meet this "in season" buying trend, merchandising is moving toward continuous delivery of new product throughout the season to keep the selling floor interesting and inviting for

purchasers. Stretching back from each apparel purchase is a chain of production that extends to the production of the fiber.

The scheduling of textile development is a critical factor in the introduction of fashion products. The time involved depends on the source of the fiber and the production stages between raw material and final fabric. When production is located offshore, the production cycle involves longer lead times to accommodate transportation from factory to distribution points. The product development process for catalogue merchandise and for certain product categories, such as sweaters, starts earlier than for other merchandise sold in retail stores.

The supply chain begins with the fiber that is processed into yarn, then into fabric, and ends with fabric finishing, including dyeing and printing. Vertically integrated firms control all aspects of the supply chain from yarn to fabric to finishing to apparel. Other firms form strategic alliances between segments of the chain to cooperate in product development, cut lead times, consolidate purchasing, and control inventories.

Integrating the supply chain in this way allows companies to plan a 12-month flow of goods. Because today's fashion picture favours a variety of goods at all price points, the emphasis is on value-added fabrics-fabrics with special appearance or performance characteristics that will command premier prices over basic fabrics in the marketplace.

At each stage in the supply chain innovation is possible. Fiber producers and mills start projecting fabric trends at least 16 months ahead of the selling season. Fabric, like apparel, itself goes through stages of development, introduction, selection, and ordering. In the case of fibers and fabric, the customers are apparel design teams who select the fabrics they will use in creating their seasonal collections.

## **Innovation in Fibers**

### ***Natural Fibers***

Natural fibers have been used for apparel across the millennia but today's textile technology continues to refine and expand their properties and uses. Cotton is moving into high-performance fabrics for active wear because of mechanical and chemical finishing and blending with other fibers. Treatment of linen yarn is increasing its use in knits and weaving techniques, finishes, and a blend, which has helped, reduce wrinkling. New ways of controlling wool's shrinking and felting properties are making it more useful in knitwear and safe for machine washing and drying.

### ***Man-made and Manufactured Fibers***

Developing new fibers and variations on existing fibers takes a huge research effort and years of work before the innovation is ready for marketing. When new fibers are developed, the U.S. Federal Trade Commission (FTC) designates them with a generic name (e.g., nylon, polyester, spandex, and lyocell). Companies that produce and promote the fibers add a trade-marked brand name (e.g., DuPont's brand name for polyester is Dacron, Hoechst-Celanese's brand name for polyester is Trivera). To be in compliance with, the Textile Fibers Products Identification Act, clothing must be labelled with the generic name of the fibers by percentage composition.

While development of a new fiber is rare, newness in fiber comes about in other ways. The basic properties of a man-made or manufactured generic fiber can be altered chemically and physically to obtain different looks and properties. When a variation is distinctive enough, the company will give it a specialty brand name and promote its special properties as a mimic for a natural fiber or because of some other performance advantage. Performance fabrics feature a special attribute such as the ability to regulate body temperature. Newness in this area

comes from making once industrial high-tech applications suitable for apparel.

### **Innovation in Yarns**

Innovation in yarn production focuses on developing products with the fiber blends, finishes, and properties that meet consumer needs. Often innovation comes from exploiting the capabilities of weaving looms and knitting machines. Yarn production techniques create differences ill:

1. *Texture*—the surface variations from hard and slick to soft and fuzzy, from dull and matte to shimmering highlights to shiny metallic.
2. *Hand*—the way finished fabric feels when handled, and properties such as its ability to recover when stretched or compressed.
3. *Drape*—the way the finished fabric hangs on the body, whether it stands away from the body or clings to the curves.

Each natural fiber—silk, cotton, wool, and linen—involves a unique process to turn fiber into yarn. In contrast, the man-made fibers begin as solid chips or pellets that are liquefied and extruded through a spinneret. Holes in the spinneret can be engineered to vary in size and shape, and these differences alter the properties of the fiber. Micro fibers are produced when the holes in the spinneret are very small and produce a fiber that is finer than even the finest natural fiber silk.

Generally, these small, fine micro fibers make fabrics that are softer and drapier than the same construction in traditional fibers. Man-made and manufactured fibers are produced as filaments continuous strands. Man-made fibers can also be textured to create crimp, loop, curl, or coil to increase the bulk, loft, or elasticity of the fiber. They can be spun into yarn in filament form or cut into short lengths that mirror the natural fibers (called staple length).

During the spinning process, fibers can be blended together to make the yarn. Blending natural and man-made fibers offers many possibilities for innovation as the blend also carries the properties of the original fibers but in a new combination. Blending wool with silk, viscose, nylon, ramie, or linen translates the fiber known for warmth into a sheer or lightweight fabric suitable for spring fashions. Tencel, a trade-marked brand of the lyocell fiber, blended with linen retains linen's esthetic but adds a softer hand to the fabric.

### **Innovation in Fabric Structure**

Fabrics used in apparel products are either knitted or woven from natural, man made, or blended yarns. Weaving is defined as the interlacing of yarns at right angles. The order of interlacing produces patterns called weaves and each weave has its own characteristics and properties.

In knitting, yarns are looped together in successive rows-a process that gives more natural stretch to the fabric, although the actual result depends on the fiber content of the yarn and the yarn construction. Variations in the weave or knitting pattern coupled with variations in the fiber content and yarn construction lead to an infinite universe of innovation in fabric structure. Bonding, crocheting, felting, knotting, and laminating make other fabric structures called novelty fabrics; such fabrics often appear as accents in a fashion season.

### **Innovation in Dyeing Fabric**

Colour can be added at any stage in fabric production-to the fiber, yarn, or fabric or to the finished garment. In a process specific to man-made fibers called solution dyeing, the colour is added to the liquefied fiber before it is extruded as a filament. Man-made and natural fibers in staple lengths can be dyed as loose fibers before being processed into yarn. Yarn can be coloured after production-

a method frequently used in the production of woven stripes, plaids, and check fabrics. The fabric can be dyed after weaving in a process called piece dyeing an inexpensive method used most frequently for solid colours.

If the fabric is made from two different fibers, it is possible to produce a two-colour fabric by adding dyes that are reactive with each fiber to a single dye bath—an inexpensive method called cross dyeing. The colour can even be applied after the fabric has been made into garments.

Garment dyeing is used when an apparel manufacturer is trying to match items by dyeing them together. Garment dyeing is also used when an apparel manufacturer wants to manufacture the apparel but conduct consumer testing on colours before committing to delivery. These variations in the dying process allow manufacturers to choose the one best suited for their situation and to provide many variations in the effects achieved. Reports on new looks in fabrics frequently include a reference to the way; the colour was applied or to the effect created.

### **Fabric Finishing**

Finishing is used to manipulate the appearance characteristics, performance, or hand of a fabric. Fabric finishing may involve:

- A mechanical process such as passing the fabric between rollers with heat and pressure to create an overall glaze or abrading the surface with brushes for a suede-like look.
- A chemical process that changes the surface of the fibers.
- An applied finish that changes the properties of the fabric, such as increasing water repellency.

Finishing techniques allow a fabric to take on many possible looks and properties but it also increases the price from 10 cents to 50 cents a yard.

Take a basic fabric such as denim-the original fabrication was 100 percent cotton, 14-ounce indigo denim. Breaking in a pair of jeans could take countless wearing and washings. Consumers took finishing into their own hands in the 1970s soaking jeans in bleach to create a softer, lighter version.

Sometimes these do-it-yourself projects resulted in unintended holes in the fabric when the jeans were left in too long or when the concentration of bleach was too strong. Today's controlled finishing processes with stones and enzymes, sandblasting, and abrading mean that new jeans have a well-worn feeling and holes only when that is the intended effect. Cotton Incorporated included 64 different finished denim fabrics in its 1998 swatch book of new fabrics, including versions of enzyme wash, enzyme and stone wash, and enzyme and bleach wash.

### **Fabric Design**

Fabric designers work with colour, texture, and light to produce an infinite variety of effects. They manipulate the weave or knitting pattern, surface texture of fabrics, and the colour or design printed on the fabric. Fashion seasons (and even eras) are characterised by fabric design. In some seasons, solid colours predominate; in others, texture is the fashion story. Some seasons feature mostly plaids and geometrics; in others, prints become important.

Printed fabrics are particularly prone to boom and bust cycles seasons (or even years) when fashion uses few prints alternate with those in which prints are the fashion emphasis. Of all print categories, florals are the most consistently popular.

### **Trims and Findings**

Trims refer to all the items used to embellish and finish an garment. While some are functional-buttons, buckles, belts-they also serves a decorative purpose. Others are purely decorative such as ribbons, applique, beading,

binding, and lace. Fashion trends in trim can be a very visible seasonal direction. In the mid-1990s, lace moved into street wear and innovations included metallic laces, unusual geometric patterns, and edgy-looking laminated lace.

Functional items such as elastic, interfacing, thread, and zippers are called findings. Even findings can become decorative and trendy at times—for example, when zippers in contrasting colours became a decorative focus in active wear. Colour trends impact trims and findings. If silver is “in,” then trims and findings will feature this colour look. Novelty looks in trim are volatile but, as with prints, floral motifs are always popular. Once sold in a basic colour assortment, the trend today is toward custom colour matching of trim to apparel.

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## Cutting and Sewing of Fabrics

### CUTTING OF FABRICS

Cutting is the preproduction process of separating (sectioning, carving, severing) a spread into garment parts that are the precise size and shape of the pattern pieces on a marker. The cutting process may also involve transferring marks and notches from the marker to garment parts to assist operators in sewing. Chopping or sectioning a spread into blocks of piece goods may precede precision cutting of individual pattern shapes. This is often done to allow for accurate matching of fabric design or easier manipulation of a cutting knife.

Fabric pieces may be cut to predetermined lengths for matching patterns or for additional processing such as screen printing. Spreads of plaid fabrics may be presectioned into blocks so the design of the fabric can be perfectly matched before cutting to the shape of the pattern piece. Presectioned pieces may also be garment parts knitted to specific finished lengths such as sweater bodies. Presectioned pieces such as leather or other specialty fabrics may be and cut as a single ply or laid up and cut as a multiple-ply spread. Cutting often is carried out in two stages: rough cutting (separating the individual pieces) and the final cutting (accurate cutting of the individual shapes). Different types of cutting tools have different degrees of precision.

## Cutting Tools

### *Portable Knives*

Portable knives can be moved to and through a spread by an operator. There are two main types of portable knives:

1. Vertical reciprocating straight knives and
2. Round knives.

Structurally and mechanically the two types of machines share many similarities. Structurally, both types of knives have a base plate, power system, handle, cutting blade, sharpening device, and blade guard. Round knives operate with a one-way thrust as the circular blade makes contact with the fabric, and vertical knives cut with an up-and-down action. Circular cutters and straight knives are pushed by hand through the stationary material.

### *Stationary Cutters*

Stationary cutters are those cutting machines that have blades or cutting devices that remain in a fixed position. The two basic types of stationary cutters are:

1. Band knives and
2. Die cutters.

Operators must move the fabric or lay up to the machine and engage the cutting action.

### *Band knives*

The band knife cutting machine contains a narrow, sharpened, endless steel band moving vertically through the layers of fabric. The fabric layers are guided by hand against the blade. An air cushion will often be provided below the fabric layers to make it easier to guide the material. The plies may be stapled together to prevent slippage. Band knives are used for precision cutting to a depth of up to 300mm. Corners, tight curves and pointed incisions are cut precisely.

Band knives have fine blades that rotate through a slot in the cutting table while cutting. The operator positions, controls, and guides the fabric block around the knife. A band knife can be used to make only lateral cuts into a spread, as the operator must propel the fabric into the rotating blade.

Band knives blades are finer and narrower than reciprocating blades, which make it easier to manipulate tight curves and intricate patterns. Band knives are more accurate than vertical knives when used to cut small blocks or shave small amounts off precut blocks. Band knives are used to trim precut blocks of small or midsize pieces. They would not be used for cutting a whole spread or large pieces because of having to manoeuvre the block around the blade.

### *Die cutting*

Die cutting is the most accurate means of cutting because each and every piece is cut to the exact same shape. Dies are preshaped metal outlines with one cutting edge. Die cutting involves use of a die to cut out a specific garment part or trim from a single piece or small block of fabric. The die-cutting operation involves placement of the fabric, positioning the die on the fabric, and engaging the machine to press the die into the fabric.

A die cutting machine is provided with prefabricated cutting tools, (cutting dies) having the exact shape of the garment pieces. Die cutters are used mainly for leather, coated and laminated materials and in areas where the same patterns are used over a long period, e.g., production of working clothes. The dies are expensive to make. Dies are frequently used to cut small pieces that require high accuracy, such as collars, pocket flaps, and appliques. Leather goods are frequently die cut. Gloves with their fine detail are usually die cut as are shoes that require consistency of parts.

### *Servo Cutters*

The bridge between computer-controlled and manual cutting is the servo-cutting system. This type of system has an overhead servo motor with adjustable speed and a suspension system that supports the knife perpendicular to the cutting table. This reduces problems with tilting the blade and in accurate cutting. The knife is mounted on a swivel arm, which is extended above the cutting table. It also has a small base plate and narrow blade guide for easier maneuvering by the operator. It can make tighter turns with less distortion in the lay. It combines vertical cutting and band knife cutting into one machine. This type of system enables the operator to cut deeper spreads with greater accuracy than with a freestanding straight knife and for a lesser investment than computerised cutting.

### *Specialised Cutting Machines*

Many types of specialised cutting machines are designed for specific operations and specific products. An example is a strip cutter, which may cut or cut and roll strips or bindings from knit tubular yardage, cut bias strips from wovens, or cut strips from vinyls or other fabrics. There are also strip cutters that measure and cut lengths of materials such as ribbons, tape, elastic, and strapping. The cutting device on a strip cutter may be as simple as a rotating blade that cuts as the product is forced against it.

### *Transferring Marks*

Marks and notches are transferred from markers to the perimeter or internal surfaces of garment parts to facilitate the sewing operation. Operators depend on marks for alignment, placement of parts, special treatment during the assembly process. When using operator-controlled cutting equipment, it is the cutter's responsibility to transfer the marks accurately to the cut garment parts. Computer-controlled cutters mark garment parts during the cutting process.

Marks should not damage or discolour the visible parts of a garment. This is especially true with internal marks, but edge marks if incorrectly done can also cause seam damage. Marks must be accurately placed and readily visible for sewing operators until the specific sewing operation requiring the mark is completed.

1. Edge marks are made in a variety of ways, but a vertical straight knife or a hot notcher is commonly used. A small lateral cut into the lay with a straight knife is best suited to firm, smooth materials that do not ravel easily. This method of marking requires a perfectly vertical lay with no sloping, otherwise some pieces will be marked too deep, while others will not be marked at all.
2. A hot notcher is a hand-held device with a vertical electrical element that scorches fabric at the point of contact. Temperature and notch depth are adjustable for the fabric. A hot notcher is a good choice for edge marks on natural fiber and knit fabrics as it makes clearly visible marks that do not disappear. When used properly, it does not cut, pucker, or ravel the fabric. It is not a good choice for thermoplastic fibers.
3. Internal marks are needed for alignment and positioning pieces such as pockets, overlays, and appliques. Drills are used to mark an entire lay-up at one time. A drill is positioned on top of a lay-up. A motor rotates the needle, which penetrates the top ply and drills its way through to the bottom ply. Penetration is made by needles of varied diameter ( $3/64$  to  $3/8$  inch) and point types. Some points actually cut a hole in the fabric which is easy for operator to locate but can cause problems in finished garments. Other types of drills carry a marking fluid or wax substance that will disappear in pressing. In some cases hot needles are used for marking.

Firms that choose not to use drills for fear of damaging fabric may use mechanical thread-marking machines. These

are slower but not as hard on the fabric or as messy. Another alternative is marking individual pieces or garments with a template and wax pen.

### *Automated Cutting Systems*

The four types of automated cutting systems are:

1. Blade cutting,
2. Laser cutting,
3. Water jet cutting, and
4. Plasma jet cutting.

Electronic microchips control the cutting device, travel pattern, and speed. Computer-generated markers are stored and used to guide the operation of the cutting head. Printed markers are not required for cutting but may be used to assist with bundling. The primary advantage of computerised cutting systems is the accuracy of the process.

Automatic blade cutting is the most highly developed and widely used computerised cutting system. Systems are specific to the standard volume to be cut. Numerically controlled knives cut multiple plies with great accuracy and speed. Information can be downloaded directly to the cutting system when needed. Easy data entry and instant communication with the main control unit allow technicians to preprogram multi-step commands, set parameters, and start the process with a single keystroke. The central control unit operates the components of the system such as the cutting head, cutter carriage, knife sharpening, and conveyorised cutting table. A cutting head is a sophisticated mechanical component with the capacity to cut, mark, and drill as dictated by the computer.

Automatic knife sharpening is done at preset intervals during the cutting operation. The cutter carriage moves the cutting head and provides lengthwise and crosswise motion during the cutting operation. The reciprocating

blade can be adjusted to the height of the spread and density of the fabric. Knife speed automatically adjusts to the forward speed of the cutting head. As the cutting head slows for corners, curves, or notches, the reciprocating blade also slows to reduce heat and possible fusing.

Most reciprocating knife systems use a vacuum to hold down the fabric. Placement of plastic film over a spread helps compress the fabric into a firm stationary lay-up when the vacuum is applied. The effect of the vacuum is to reduce the height of the spread and eliminate fabric movement during cutting. An intensified vacuum force is automatically applied to the area directly under the knife to further restrict material shifting. Laser cutting focuses a powerful beam of light projected onto a minute area to cut fabric by vaporisation. The fine, V-shaped beam is only 0.004 of an inch. The beam cuts without pressure on the fabric, which is a major advantage for some types of fabric. The fabric remains immobile during the cutting operation.

Lasers cut with incredible speed, accuracy, and multidirectional ability, but with some heat emission. Laser-cut edges are sharp and clean. The heat produced tends to seal fabric edges, which can be an advantage for fabric that ravel and a disadvantage for cutting multiple plies as edges may fuse together. Laser-cut garment parts are easier to assemble, as they are consistent in size with smooth sharp edges to align.

Water jet cutting is another computer-operated, multidirectional method that has limited usage at this time. Water jet cutting is performed by propelling a tiny jet of water (0.0010-0.0015 inch) through fabric at very high pressure (70,000 pounds per square inch). The forward edge of the jet stream shears the fabric as it moves along the cutting line but does not wet the fabric, generate airborne contaminant, or exert an appreciable force on the material. The water jet will cut multiple plies without fusing, but it may fray and tangle the yarns of some fabrics, which makes it difficult to separate the plies. It is used

when heat build up must be avoided and water absorption is not important. At the present time its use is limited to cutting leather and vinyl fabrics.

Plasma jet cutting is a computer-operated, high-speed, single-ply cutting device that offers many of the same features of a laser cutter but at a lower price. Along with the plasma jet cutting system, Investronica has developed a Matching System for automatic matching and cutting of striped, checked, or printed fabric. A TV camera reads the fabric on the conveyor, and a digital image processor decides the best way to match and layout the pattern pieces based on determined matching rules. Matches can be made among different prints, selvages, and fabric characteristics. This system eliminates recutting parts for more precise matching.

### *Off Loading*

Off loading is the process of removing cut parts from the cutting table, counting, ticketing, and grouping them. The method and sequence this follows depend on the production system, how the materials are to be transported to the sewing facility, and any additional operations that may be completed in the cutting room. Cut parts are considered work-in-process inventory and are counted and tracked throughout the rest of the production processes. This is usually done through bundle tickets that originate with cutting orders.

The purpose of bundle tickets is to:

1. Monitor the progress of each specific garment,
2. Ensure that all the correct parts are assembled together, and
3. Compensate operators for their work on each garment.

Cut part identification involves identifying and marking parts for further operations. Throughout the sewing process it is essential that each garment be assembled from

parts that have been cut from the same ply of fabric, which is ensured by shade marking each piece in the lay. Every piece is ticketed with a style number, size, and ply number. Each piece or garment part is ticketed, and the plies are numbered sequentially. Operators can check ply numbers as parts are assembled to be certain that the correct parts are being used in each garment. Shade marking is done prior to bundling. Garment parts are grouped and bundled for the specific production system to be used.

## SEWING

Sewing is an ancient craft involving the stitching of cloth, leather, animal skins, furs, or other materials, using needle and thread. Its use is nearly universal among human populations and dates back to Paleolithic times. Sewing predates the weaving of cloth.

Sewing is used primarily to produce clothing and household furnishings as curtains, bedclothes, upholstery, and table linens. It is also used for sails, bellows, skin boats, banners and other items shaped out of flexible materials such as canvas and leather.

Most sewing in the industrial world is done by machines. Pieces of a garment are often first tacked together. The machine has a complex set of gears and arms which pierces thread through the layers of the cloth and semi-securely interlocks the thread.

Some people sew clothes for themselves and their families. More often home sewers sew to repair clothes, such as mending a torn seam or replacing a loose button. A person who sews for a living is known as a seamstress, dressmaker, tailor, or garment worker.

"Plain" sewing is done for functional reasons: making or mending clothing or household linens. "Fancy" sewing is primarily decorative, including techniques such as shirring, smocking, embroidery, or quilting. Sewing is the foundation for many needle arts and crafts, such as applique, canvas work, and patchwork.

## **Mechanisation of Sewing**

Mechanisation of the sewing process encouraged mass production of apparel. Sewing that had long been performed by hand could be done more rapidly by machine. By about 1900, most sewing processes could be performed by machine.

Automation is a state of operating without external influence or control. In manufacturing it is often viewed as highly desirable because it eliminates the potential for human error. Automated sewing systems are capable of feeding themselves cut parts from a stack, completing multiple sewing tasks, and delivering finished parts. Automated equipment may be cost effective for some manufacturers, while the high costs of acquisition, installation, and maintenance are prohibitive to others.

Robotics is the most advanced form of automation. Robots are computerised, reprogrammable, multifunctional manipulators designed to move materials, parts, tools, or specialised devices through variable programmed motions for the performance of a variety of tasks. Flexible reprogrammability is one of the hallmarks of robotic automation. This manufacturing flexibility differentiates robotics from fixed-purpose, hard-wired automation, which has to be torn apart and reconfigured for every new application.

Sewing and pressing equipment may be either general or special-purpose. General purpose machines are manually operated and can perform a variety of operations. Special-purpose machines are designed to perform a specific operation and more likely to be semiautomatic or automatic.

A basic sewing machine or sewing head, as it is sometimes called, consists of the fundamental parts required to form a stitch, sew a seam, or perform a specific sewing operation. The major components of a basic sewing machine include a casting, a lubrication system, a stitch-forming system, and a feed system. The speed at which a

machine can operate depends on the engineering of the machine's components.

The machine casting is the metal form that provides the exterior shape of the machine. Shapes vary with the bed type, the sewing function that is to be performed, and how piece goods are to be presented to the needle. The casting houses the internal workings, such as the gears, cams and shafts, that operate the stitching and feeding mechanisms.

The bed is the lower portion of the machine under which the feed mechanisms and loopers are located. Sewing machines are frequently described by bed types.

### **Stitch-forming Systems**

The stitch-forming systems are the mechanical parts that on correct synchronisation, form stitches and sew seams or stitchings. Many are specific to the stitch or machine type. The various stitch-forming mechanisms are:

1. thread control devices, which include tensions and take-ups;
2. needles;
3. bobbins, bobbin cases, and hooks;
4. loopers;
5. spreaders;
6. throat plates, tongues, and chaining devices; and
7. threading fingers and auxiliary hooks.

Correct stitch formation is dependent on the appropriate combination of these parts and their precise synchronisation. Good maintenance is essential to maintaining the needed precision.

### **Thread Control Devices**

Thread control devices include thread guides, tension devices, and take-ups, which are necessary to provide uniform thread flow.

Thread guides control the positioning and movement of thread. Damaged or faulty thread guides can damage sewing thread and cause thread breakage and weak seams. Tensioning devices control the flow and tautness of thread as it travels through the stitch-forming parts of a sewing machine. Tension determines the balance and tightness of a stitch. Tensioning devices consist of a pair of tension disks, a spring, and thumb nut that can be adjusted to control the ease with which thread passes between the disks.

Compare thread tension to hand-tying a knot. Until the strands forming the knot are pulled, it does not take shape and has no holding power. If pulled too tight, both appearance and performance are affected, and strands may break. In stitch formation too much tension may cause thread breakage or puckered seams; too little tension allows slack and excessive looping, and loose stitches that will not hold. Tension needs to be adjusted when thread, fabric, and/or needles are changed. Thread take-up controls the supply of thread required to form each stitch. It gives extra thread to the needle to form the stitch but takes it away to set the stitch.

### *Needles*

Needles carry the thread through the fabric so a stitch can be formed. Proper stitch formation is dependent on the formation of a loop of thread below the fabric that can be picked up by a hook or looper.

### *Lower Stitch-forming Devices*

Lower stitch-forming devices include the hook found on bobbin cases of lock stitch machines and loopers. A hook is a rotating device encompassing the bobbin case that picks up the needle thread loop to form a lock stitch. If the hook misses the loop, no stitch is formed. Precision and timing are critical to stitch formation. Loopers may carry lower threads to interlock with needle threads or other

looper threads. Loopers have a set motion pattern that must be synchronised with the needle motion and feeding. Spreaders work in conjunction with a looper to assist loop formation. They move the thread but do not carry the thread. Threading fingers move the cover threads back and forth in forming the cover stitches.

### *Stitch Tongues or Chaining Plates*

They are pointed metal extensions that may be part of or attached to throat plates. Stitch tongues are essential for the formation of the three-dimensional stitches. Tongues vary in length and shape depending on the requirements of the specific stitch type and operation. A long, thin pointed tongue is needed for tight, close stitching such as a rolled edge, while a flatter, wider tongue is used for flat seaming.

### *Feeding System*

The material-handling components of a machine are often referred to as the feeding system. For a precise line of stitches to be formed, fabric must be moved through the stitch-forming area of the machine with accuracy and precision. The feeding system controls fabric movement. It usually consists of three parts: the presser foot, the throat plate, and the feed mechanism. Each of the parts has many variations in shapes, sizes, and functions. They are specific to the machine type, number of needles used, types of attachments used, and types of operations. They are parts of a system and must be compatible. If one is changed, the other parts must be changed to make the system work effectively.

### *Presser Foot*

The presser foot is the upper part of the feeding combination that holds the fabric in place for the feeding action and stitch formation. The presser foot, which is attached to the presser bar, controls the amount of pressure

placed on the fabric as it is fed through the machine. The amount of pressure can be adjusted for the sewing speed and fabric type and weight. Higher speeds may require more pressure to control the movement of fabric. Flagging occurs when the fabric rises and falls with the needle action. This interferes with stitch formation. Flagging can be prevented with more pressure and a smaller needle hole in the presser foot and throat plate.

A basic presser foot may be constructed as a single unit or hinged to facilitate movement over bulky seams. The most common type is the flat pressure foot, which consists of a shank that attaches to the presser bar and the shoe that rests on the surface of the fabric.

Variations in the basic presser foot occur in the shoe parts, which include the sole, heel, and toe. The sole is the surface that is in direct contact with the fabric, which may be smooth, toothed, channeled, and so on. The toe is the forward portion of the shoe that is responsible for holding, guiding, and positioning the unsewn fabric.

The heel is the back portion of the shoe that is primarily responsible for holding fabric and retaining its established position for the feeding and stitching action to take place. Each of these areas of a presser foot has many variations that are adapted for specific operations. There are well over 100 different types of presser feet and each is specific to function.

Some of the possible modifications of presser feet are short toes for sewing curves, long toes for long straight seams, offset soles for stitching along raised edges of fabric (patch pockets and collar edges), channeled soles for fitting over bulky lapped seams, solid narrow feet for sewing close to raised edges or zipper chain, and so on. Some of the more specialised feet contain other operational parts. Presser feet are uniquely designed for different sewing operation and can be changed readily, but they must be coordinated with other feeding and sewing parts.

Throat plates are removable metal plates attached to an adapter plate or throat plate support, directly under the needle. Throat plates support the fabric as the needle penetrates to form the stitch. Throat plates have openings for needles and lower feed devices. The appropriate size and shape of the throat plate varies with the machine type and its specific function in the stitch-forming process. The number and size of openings in a throat plate depend on the number, size, and action of needles and the number and location of feeds. Throat plates are interchangeable and must be compatible with other stitch forming and fabric-carrying parts in order for stitches to be formed properly.

### **Feed Mechanisms**

Feed mechanisms control the direction of fabric movement and the amount of fabric movement for each stitch. There are continuous feeds, intermittent feeds, top feeds, bottom feeds, and simultaneous feeds. Feed mechanisms affect stitch length and the rate of travel. Many feed mechanisms are specific to the type of machine, while others are specific to the operation.

Most machines have bottom-drop oscillation feeds called feed dogs that rotate in an elliptical pattern below openings in the throat plate. Feed dogs (feed teeth) rise above the throat plate and carry the fabric toward and away from the needle and drop down and away from the fabric as the needle descends into the fabric to form a stitch. Feed mechanisms must be synchronised with needle motion so fabric is moved only when the needle is rising and completely out of the fabric.

Feed dogs can be changed to suit a specific operation, type of seam, and type of fabric. Fine feeds will cause less damage than larger teeth that are more widely spaced. Rubber feed dogs may minimise damage on delicate fabrics, while larger metal teeth are suitable for more rugged materials. Performance of feed dogs is also

dependent on the amount of pressure from the presser foot. Feed dogs and presser feet should be selected to complement each other. The wrong combination of feed dogs, presser foot, and amount of pressure can cause skipped stitches, uneven stitching, and damaged fabric.

### **Work Aids**

Work aids are labour-saving devices used to simplify an operation, reduce handling, increase productivity, improve work quality, and reduce operator fatigue. Many work aids have been developed to facilitate the use of basic equipment and make it more adaptable to specific operations. Carefully selected work aids can often produce significant savings.

Work aids can be purchased, created by research and development departments, or developed by engineers, mechanics, and technicians on the production floor. Work aids may be used in all types of operations including cutting, sewing, and finishing, but they are most widely used in the sewing room because of the accuracy and labour intensity required. Some work aids depend on manual involvement by an operator. Others may operate mechanically or by pneumatics or electronics. These include separate devices, attachments, and machine options.

#### ***Separate Devices***

Separate devices positioned in the workstation are frequently used to facilitate operations and for materials handling. These may include bundle trucks or carts, stands for positioning bundles so they are easily accessible to the operator's grasp, bins or racks for easy disposal of parts when sewing is completed, or snips for cutting thread. Clamps are helpful in maintaining orderly stacks of parts.

#### ***Attachments***

Attachments are primarily mechanical work aids that can easily be added or removed from the machine or work

station according to the requirements of a particular sewing operation. Attachments may be stationary, swivel, slide, or pivotal in order to be engaged and disengaged from the area of operation. Attachments often assist an operator in guiding, positioning, folding, and regulating the materials during the sewing operation.

### ***Guides***

Guides are designed to facilitate alignment, accuracy, and consistency in positioning and stitching the fabric. They may provide both a tactile and visual focal point for an operator. The principle of tactile response can be compared to driving on a curbed road. The driver becomes sensitive to the position of the wheels relative to the curb. Contact with the curb is a sure indicator of being too close. For manual operations, using both tactile and visual senses is preferred. Use of tactile guides may increase the rate of production, but visual alignment is needed to develop accuracy.

### ***Folding Devices***

Folding devices are used to position trim just in front of the needle. For example, bias strips can be applied by drawing the binding off a roll above or to the side of the machine and through a folder and tensioning device before reaching the needle. The folder, which is an open-ended funnel, causes the edges to turn to the underside as it passes through to the needle. The exact position of the attachment on the cloth plate may be a factor in how bias strips or other trims are applied. Attachments may also be used to fold various types of edge finishes and trims, including hems.

### **Lockstitch Sewing Machine**

Modern mass-production sewing requirements have resulted in many variations of the basic flat-bed lockstitch sewing machine. Many of these developments are

concerned with the form of the bed on which the material to be sewn rests. Cylinder-beds, post-beds, raised- and feed-off-the-arm beds have given rise to machines which differ greatly in appearance, although the actual stitch forming elements contained in these machines remain basically the same. These mechanisms may be grouped under one or other of the two main headings, Rotary hook or Oscillating Shuttle.

The primary components concerned with the formation of the stitch are:

1. The needle,
2. The feed dogs,
3. Throatplate,
4. The presser foot,
5. The rotary sewing hook, and
6. Bobbin and the bobbin case.

Each of these components is a precision product and for its proper functioning must be in perfect condition, with their positions accurately set and, in the case of moving parts, perfectly timed in relation to the movement of the other components.

### *Rotary-hook Lock Stitch Machine*

Rotary-hook machine forms the plain stitch or simple two thread lock stitch by carrying the needle thread loop around a bobbin containing the under thread.

- Commencing with the needle at the lowest point of its stroke, the needle starts to raise the needle-thread which, being flexible, bulges out away from the needle to form a loop.
- The loop formed in the needle-thread is then entered by the point of the sewing hook.
- As the needle continues to rise and the hook progresses in its rotation, the needle-thread take-up

arm provides sufficient slack thread to be drawn down through the fabric to increase the size of the loop.

- On its first rotation, the sewing hook carries the needle-thread loops around the bobbin case and bobbin, the inside of the loop sliding over the face of the bobbin case whilst the outside passes around the back, to enclose the bobbin-thread. As the needle-thread take-up starts to rise, the loop is drawn up through the "castoff" opening of the sewing-hook before the revolution is complete.
- During the second revolution of the sewing-hook the thread take-up completes its upward stroke, drawing the slack thread through the material and settling the stitch. Meanwhile, the feed dog has moved forward carrying the material with it and drawing the required length of under-thread from the bobbin.
- The presser-foot guards against the slippage by holding the fabric firmly against the teeth of the feed dog whilst the feed dog is carrying the fabric across the smooth face of the throat plate or needle plate.

Now, that it is clear to us that how a lock stitch is formed, there are many factors that can prevent the correct formation of the stitch. Namely they can be:

- Anything which inhibits the formation of the needle-thread loop,
- Anything which prevents a correctly formed loop from being entered by the point of the sewing hook, or
- Anything, which interferes with the free running of either, the needle-thread or the bobbin thread.

Apart from this there are other factors that influence the formation of a satisfactory seam, which are:

- The size and type of the needle and sewing thread,

- The relative tensions in the threadlines, and
- The type of fabric and the manner in which it is fed across the throatplate of the machine.

### *Three-thread Overlock*

This stitch is also known as overedge, edge-seaming or overseaming. It is used extensively in the making up of knitted goods and for serging woven fabrics in the tailoring industry. In its basic form the stitch comprises three threads- a needle thread, and two looper threads. It is the needle thread which actually stitches the plies of fabrics together, whilst the looper-threads interlock with the needle thread above and below the fabric, and with each other on the trimmed edge of the fabric- for which purpose trimming cutters are provided. The interlocking of the looper-threads binds the trimmed edges of the fabric preventing fraying or unraveling. The stitch has the advantage of very high extensibility. This property makes it eminently suitable for use in readily extensible fabrics, knitwear and the making up of tights.

### **EMBROIDERY STITCHES**

The range of embroidery styles is closely linked to regional variations, both in materials and in stitch types. For example, embroidery in Kashmir is often on locally produced wool, while fine cotton muslin is used as the ground cloth in Bengal, its place of manufacture. While some stitches, for example chain-stitch, may be found all over India, others, like the interlacing hurmitch, identify the embroidery as being from certain parts of Pakistan or western India. Patterns may also reflect the place of origin, whether it is the angular so of the carpenter community of Rajasthan and Sindh, the elaborate floral designs of the Mughal court, or the hybrid Europeanised patterns done for the export market.

Indian embroidery may be carried out by male professionals in busy urban workshops or by women at home during breaks in their other work, and may be used purely in the domestic context or for more public commissions. Some types of embroidery have all but disappeared from India; others, like the kantha, have faltered and been revived; in many cases, the changing way of life of the twentieth century has rendered embroidery redundant except for the tourist or interior design market.

Any simple plain cloth artistically decorated by fancy design is called embroidery. It is very important to know proper mixing of colours to get good embroidery work. Embroidery is created by the decorative relationship between fabric and thread. These are the main material for the embroidery. So one must know the importance and it cannot be over emphasised. Choice of fabric thread and needle will to some extent depend on the embroidery you choose. It is important to acquire a thorough understanding of materials and methods and to be able to use them effectively.

While doing embroidery it is very important to select a proper material and the right kind of stitch to be done on it. Each type of embroidery has its own particular stitch. It is very important to know the properties of whole range of materials. There are many fabrics available in the market such as canvas, silk, terricot and many drip dry materials. But the most important of all is linen. Linen is perhaps' easiest to embroider.

The needle is the most important embroidery tool and it is essential to choose one that is suitable for the piece of work. The type of size of needle will be depending upon the type of material and the type of embroidery stitches. Needle size depends on numbers higher the number finer will be the needle and lesser the number thicker will be the needle. For hand embroidery crewel needles are the

best as it has long eye to take more than one thread of stranded cotton, silk and wool.

For stranded cotton embroidery number 9 and 10 is the best crewel needle. If the needle is too fine it is very difficult to pass through the fabric. Never use blunt or rusty needle. Round eye needle is the best for French knots and bullion stitch as it is easy to pass the needle from the rounds of threads. In Free Style Embroidery Milwar 'Gold Seal' crewel and chenille needles are used; the former for fine and medium weight threads and fabrics. The latter for heavier threads and fabrics. For Counted Thread Embroidery, Milward 'Gold' Seal round pointed tapestry needles are always used.

### **Embroidery Threads**

The choice of thread or yarn plays an important role in the finished effect of embroidery. It can be clear or soft, bright or dull, compact or transparent. Each type of thread is suited to a particular group of stitches and all must be in proper relation to the fabric used.

Anchor Stranded Cotton has six separate strands which are loosely twisted together. Six strands may be used at one time or they may be separated and used singly or in groups of two, three or four. The thread is lustrous and is suitable for most types of embroidery. Anchor Pearl Cotton No.5 and No.8 is a smooth corded thread, most suitable for Hardanger work and other types of Counted Thread Embroidery. Pearl Cotton No. 8 is widely used for Cut-Work-Embroidery. It is also suitable for all medium fine embroidery—both Free Style and Counted. Anchor Cotton a Broader is a highly twisted lustrous thread and is suitable for Drawn Thread, Drawn Fabric and Cut-Work-Embroidery. Anchor Soft Embroidery is a thread with a thick matt finish, for bold embroidery in either Free Style or Counted Thread; it is also suitable for tapestries. Anchor Tapisserie Wool is a firm, well twisted woollen yarn, excellent for canvas embroidery and the working of

tapestries, as well as Free Style and Counted Thread. It is moth resistant and colour fast and can be washed as well as the other threads without any danger of the colour running.

### **Embroidery Frames**

Some embroideries with areas of closely worked stitches are apt to pucker. In this case, an embroidery frame is recommended to help keep the work flat and even. There are several types of frames.

#### ***Round Frames***

An embroidery ring is most commonly used for small pieces of work. The ring usually consists of two wooden or metal rings, fitting closely one within the other, so that the fabric may be stretched tightly. These rings can be obtained in various sizes, the most useful type having a small screw on the larger ring for loosening or tightening it. This allows any thickness of fabric to be used.

The section of embroidery to be worked is placed over the smaller of the rings, the other ring being pressed down over the fabric on the smaller ring to hold the work taut. If a screw is attached, this should be tightened. The warp and weft threads of the fabric must be straight in the ring. Do not attempt to tighten the fabric by adjusting the screw or pulling the fabric once it is mounted. It will spoil the grainlines and sometime tear the fabric.

#### ***Square Frame***

For large pieces of embroidery, especially tapestries, the work should be mounted on a square or rectangular frame. These frames generally consists of two rollers, each with a piece of tape firmly nailed along its length (i.e., top and bottom) and two side laths which fit into holes or slots on each roller. The side laths are then secured with the four screws to make the fabric taut and even. The sides of the canvas are securely laced round the laths with double

cotton; if fine fabric is used, stitch tape to the free sides then lace.

### *Scissors*

For hand and machine embroidery one must have two pairs of scissors. A larger one for cutting the fabric and a smaller one for embroidery. The smaller one must have sharp points and cutting the ends of threads and for cutting the size and intricate shapes of cut work and scallops. The pinking shears are also useful for trimming the edge of the fabric in decorative zigzag manner. Tweezers are sometimes useful for pulling thick threads through fabric and inserting gulling wool for Italian quilting. Stitch ripper is also essential for ripping off wrong stitch in embroidery.

### *Thimbles*

A thimble is essential for embroidery to protect the middle finger when pushing the needle through the fabric. Buy a good quality one in metal or plastic and make sure that it fits well.

### **Methods For Transferring**

The success of any piece of embroidery depends not only on skill which your work but also depends on your preparation. Design must be transferred to the fabric in the most appropriate way and the fabric must be mounted on a suitable frame. There are several methods of transferring the design. Before transferring the design make sure that the fabric is much more larger than required size.

### *Dressmakers Carbon*

This method can be used on any textured fabric and is suitable for fairly complex designs. On rough textured fabrics the lines tend to be destroyed. Dress makers carbon can be purchased in a packet containing several colours. Do not use office carbon paper, which will leave smudge marks behind on the surface of fabric.

First place the fabric to a smooth hand surface and fix it with drawing pins. Place the design, right side up on the top of the fabric, making sure that it is positioned correctly. Put some weight at the corner of the design. Slip the carbon between the fabric and tracing paper. See that the colour side of the paper touching the fabric with the ball point go over the lines of the design firmly. Carefully lift the paper and carbon to check that the design comes out properly.

#### *Direct Tirect Tracing Method*

This method is the best to transfer the design on the fabric. In this, lighted transparent glass table is used. The fabric should be light coloured and light in weight. First place the design paper on glass table. Then on the top of the design paper your fabric is placed properly with weight on it so that it would not shift. With the help of fabric marking pencil trace out the outline of the design which is seen through the fabric.

#### *Pricking Method*

This method is appropriate for any kind of design and can be used with any fabrics except lightly textured ones. This is a very good method to use if you need to repeat a motif since the tracing can be used several times. In this case you need fairly stiff tracing paper. Medium size sharp pointed needle, a cork, a small piece of felt, powder or tailors chalk or either a fabric marking pen or a brush and a water colour paint in shade of slightly darker or lighter than fabric.

Trace the design on to firm tracing paper, then with a needle, prick small holes over all the lines, spacing the holes evenly about  $1/16$ th inch apart. Rub the back of the pricked design with fine sandpaper to remove the roughness. Place the pricked design on to the fabric and keep in position with weights. Rub powdered charcoal (for light coloured fabric) or powdered chalk (for dark coloured

fabric) through the holes. Remove the tracing paper and blow off the surplus powder from the fabric. Paint over the dotted lines of powder with water colour paint, using a fine brush and not too much water. Use dark or light coloured paint depending upon the colour of the fabric.

### *Tacking Method*

This method is mostly used on heavy textured fabrics like swede, velvete, corded etc. It is also ideal if you want to work the embroidery freely and spontaneously. The tacked line serves as a guideline for the design on the fabric. For this method gateway paper is necessary and sewing thread is slightly darker than the fabrics required. Before transferring the design fix the fabric on frame firmly, Place the design transfer paper on the fabric and fix it up. The pins using sewing thread work running stitches along the line of the design through both the paper and fabric. Make sure that starting and ending thread is firm enough. When the tacking is completed run the point of needle along the tacking line so that paper can be pulled off gently from the fabric. The most popular type of embroidery is Free Style Embroidery, i.e., embroideries which are worked over a traced or hot-iron transfer design or from a stamped linen.

### *Counted Thread Embroidery*

In contrast to Free Style Embroidery, Counted Thread Embroidery requires no tracing or transfer and is worked by counting the threads of the fabric and working each stitch over an exact number of threads. Even weave fabric or canvas must be used.

Many of the embroidery stitches are used only in Free Style Embroidery and others are used only in Counted Thread Embroidery. In certain cases, stitches may be used for both types. To explain this further the following Counted Thread Stitches can be used over the traced or transferred lines of a free style embroidery design; Wave

Stitch Filling, Whipped Back Stitch. In the same way certain Free Style Embroidery Stitches, for example; Pekinese Stitch, Cable Stitch, Fern Stitch, Chevron Stitch, Fly Stitch and Double Knot Stitch can be used on Counted Thread Fabric.

In Counted Thread Embroidery the main types are Cross Stitch, Assisi, Spanish Blackwork, Hardanger, Drawn Thread, Drawn Fabric and Canvas Work. Each type of embroidery has a number of basic stitches which are generally used. Other stitches may be introduced to lend variety to a design.

### **Drawn Thread Embroidery**

This type of embroidery, as its name implies, is carried put by withdrawing threads from the fabric and the embroidering over the edges of the space of the withdrawn threads. Decorative stitches may also be worked over the loose threads which are left when the warp and weft threads are withdrawn. Spider's Web Filling is useful to fill the open corners where both warp and weft threads are withdrawn.

### **Drawn Fabric Embroidery**

Drawn Fabric Embroidery is created by drawing together into groups certain threads of the fabric. The actual stitching is not the main feature of this embroidery, it is the open pattern formed on the fabric by the pulling together of the threads of the fabric. The stitches are worked over a regular number of threads of fabric and the working thread is always pulled firmly with each needle movement, so that an open work effect is achieved. No threads are withdrawn from the fabric so, although a certain fragile appearance is achieved, the embroidery remains strong and durable. In addition to the stitches mentioned under the 'Drawn Fabric' section, other stitches may also be used to make more decorative designs, some

of these are Cable Stitch, Star Eyelets, Long-legged Cross Stitch, Diagonal Raised Band and Mosaic Filling.

### **Hardanger Embroidery**

Hardanger Embroidery should always be worked on an even weaves fabric. Satin Satich is the basic stitch and is worked in groups (blocks) comprised of an uneven number of stitches. When all the Stain Stitch Blocks have been completed, the fabric threads are then cut and withdrawn as required. The loose threads are Overcast or Woven to form bars and various filling stitches worked within the spaces left by he drawn threads.

### **Canvas Embroidery**

There are various types of canvas, single thread, double thread, fine and coarse. The type of canvas required will depend upon the thickness of embroidery thread to be used. Petit Point is the stitch used on a fine, single thread canvas, while Gross Point is suitable for the slightly heavier double thread canvas, and both come under the general name of Tent Stitch. A trimmed stitch may be used with Gross Point to ensure that the threads of the canvas are completely covered. This will also give a neater appearance to the work.

To commence or finish the work, do not use knots, as they stand out in relief when the work is finally stretched and mounted. To commence needlework tapestry, push the needle through the canvas on the right side, about 2 inches from the point of working; leaving a short end. When the section of the tapestry is complete drag in  $\frac{3}{4}$  in h of the end on the wrong side and cut away surplus. Finish the work by darning in the end on the wrong side, but not where a thread has been previously darned. It is advisable to use a shorter length of embroidery thread than normal in canvas embroidery The action of being pulled through the canvas tends to fray the thread. When working a plain background or a large area in one shade, use

varying lengths of thread so that the beginning and end of the threads do not appear in line. If they do, there will be a noticeable ridge at the beginnings and endings. The stitches at the back of the work should be regular. Work all stitches at an even tension.

### *Insertion Stitches*

The general principle of this embroidery is the joining of two pieces of fabric together with an insertion stitch. Method: turn in the raw edges of both pieces of fabric and press. (Finished hems can be made if desired). Baste the edges the required distance apart on the a stiff piece of paper, then work the insertion stitch, keeping the tension of the stitches regular.

### *Stret Ching Canvas*

After an article has been worked on canvas in Gros Point or Petit Point Stitch the embroideress may find the article has pulled slightly out of shape due to the diagonal pull of the stitches. The canvas will, therefore, require stretching. This can be done professionally. We have outlined a method which could be done at home by the embroideress.

1. Cover a firm board or wooden surface, slightly larger than completed piece of canvas with clean blotting paper and drawing rectangle 2 ins. Larger than the embroidered tapestry on the blotted paper.
2. Pin out the canvas to size face downwards and. If necessary, slightly dampen the worked canvas, making sure that the warp and the weft threads run at right angles to each other, Secure round all edges of the unworked canvas with drawing pins, placed  $\frac{1}{4}$  in. apart. The canvas may require careful pulling in order to make it square.
3. Dampen the back of the tapestry and the surrounding canvas, as this losses the gum or stiffening agent, it

is possible to stretch the threads back to the original form. The gum of stiffening agent then dries and resets the canvas threads. The canvas must then be left for two/three weeks so that the shape becomes permanent.

4. Carefully remove pins.
5. If the canvas has been very badly pulled out of shape it may be necessary to repeat the above process.

### **Machine Embroidery**

There are many domestic sewing machines on the market that are designed for creating embroidery. These range from basic models with a few automatic patterns and the ability to embroider freehand, to sophisticated computerised machines with memory cards and a huge range of automatic patterns. Some sewing machines can be linked to computers. To use these, you first design an elaborate pattern, then load it into the machine, and the design is embroidered automatically onto your fabric.

For machine embroidery, you need an electric sewing machine with a 'feed dog' that can be lowered by a lever or covered with a cover plate. This device allows you to sew in all directions. A removable bobbin case is essential, so that you can adjust the tension when using thick embroidery threads. For free embroidery, you will need a darning or freehand embroidery foot which has a sprung mechanism that moves up and down with the needle, enabling you to stitch in any direction. Most machines have a darning foot but, if not, you can remove the foot completely. Be careful that your fingers do not get caught.

### **Basic Techniques**

#### *Using a hoop*

It is essential to use a hoop for all types of machine embroidery to keep the fabric taut. The hoop is used in reverse for hand embroidery. Lay the outer ring down,

place the fabric on top, right side facing, then insert the inner ring. Tighten the screw, easing the fabric flat until it is as taut as a drum. The frame is inserted under the needle on a sewing machine and sits on the machine bed. Hold, the frame at both sides and then move it in all directions as you stitch.

#### *How to machine embroider*

Machine embroidery can be done with the presser foot but a freehand embroidery foot gives you greater freedom of movement. For both methods, experiment on spare fabric to learn how to control the machine and how to manipulate your fabrics. The thread that is being used will determine the size of the needle. There is a groove running down the length of the needle, and the thread should lie in this. If you use too fine a needle, the thread will not fit into the groove and this will give you skipped stitches. The bobbin spool case should be removable and have a small metal piece at the side which is attached by a small screw. This can be loosened to alter the tension—but do this very carefully with small adjustments as you can lose the screw very easily.

#### *Using the presser foot*

Set up the machine as usual and experiment with the straight stitch and the zigzag stitch. By varying the tension and using different threads on top and in the spool, you should achieve interesting textural and colour effects. Vary the stitch length and width, and experiment changing from straight stitch to satin stitch. A variety of patterns and decorative devices can be created this way, providing a good introduction to machine embroidery.

#### *Using tailor tack foot*

Set up the machine for zigzag stitch, attach the tailor tack foot, and lower the presser foot. Set the stitch width from 2 up to 5 and loosen the top thread tension. Vary the stitch

length and width to create a variety of textural and decorative effects. The smaller the stitch length, the denser the row looped stitching. Spacing the stitch in intervals will give you a lighter, general effect. Using two different-coloured rayon threads on the top gives a thick, lustrous quality. If you are worried that your stitches will come out, try ironing a piece of lightweight interfacing onto the back of the area that you are stitching.

#### *Using the freehand embroidery foot*

For free embroidery you will need a darning or freehand embroidery foot, with the presser foot lever lowered to engage the top tension. Lower the feed dog and set the stitch width to zero. Place the frame under the needle, and lower the presser foot lever. Hold the thread taut with your left hand and insert the needle into the fabric to bring up the bobbin thread. Hold both threads tightly for the first few stitches then cut them off. As the feed dog is lowered, the speed at which you move the fabric will determine the length of the stitch. Moving the hoop slowly with the needle moving fast will give a very small, tight stitch. Alternatively, moving the hoop fast will give you a long and very loose stitch.

#### *Running stitch*

Begin by moving the fabric slowly and start stitching. Move the fabric in all directions and practise doodling and creating shapes and textures.

#### *Zigzag stitch*

By adjusting the stitch width, you will obtain a zigzag stitch that can be wide or narrow. Move the hoop slowly to achieve a close, dense satin stitch. If you move it fast you will achieve a very open zigzag line.

#### *Whip stitch*

Use a cotton machine embroidery thread on the top and a rayon thread in the bobbin, perhaps in a different colour.

By tightening the top tension and loosening the bobbin tension you will create a loop of the bobbin thread—the bobbin thread whips around the top thread. This can be achieved using running or zigzag stitch. Decorative effects can be created by varying the tensions, movement and speed.

#### *Cable stitch*

Use thick embroidery cotton in the bobbin and a rayon thread on the top. Wind the thread evenly onto the bobbin, being careful not to over-fill it, then place it into the bobbin case and loosen the tension screw until the thread can pass through the gap. Tighten the top tension and place the fabric in the embroidery hoop, wrong side up. This will give you a lovely couched or corded effect. Alter the tensions and experiment with different threads and wools to obtain various interesting textural effects.

#### *Using shirring elastic*

Wind the shirring elastic onto the bobbin, holding it taut as you wind. Place the bobbin into the case and loosen the tension screw until the thread can pass through the gap. Tighten the top tension, place the fabric in the embroidery hoop right side up, insert the needle into the fabric and bring up the bobbin thread. Using running stitch, experiment with different patterns, grids or connected circles and spirals, allowing space in between the stitching for the fabric to pucker. When you have finished, remove the fabric from the hoop and it will distort into interesting patterns.

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## Creative Designing

Fashion designing is an art of creating apparels and related accessories to set a lifestyle statement. Modern fashion design comprises of two basic categories viz. Haute-Couture, and Pret-a-porter or Ready-to-Wear. The former is a custom-made form of fashion designing catering to exclusive customers and haute couture is showcased through fashion shows for all creativity knows no bounds in fashion designing. If one has the correct knowledge of textile, patterns, colour coding, texture etc., there is no limit to the permutations one can think of in terms of designs.

In fashion designing, the colour combos, weaving and fabric are the most crucial elements. The entire look and feel depends upon these three aspects. Then it is upto the professional skills that render the cut, design, accessories, trimming etc., to give the full and final demeanour of the outfit. It is also important that one plans the entire attire, draws the blueprint and visualises the final outcome of the design. The success of the design will of course depend on the finish, thus its crucial to have a superb and glamorous.

One of the rummiest aspects of fashion designing is the thematic dependence of the attire such as season, fabric preference of the people etc. If one notices, the designing depends upon the specific season. E.g. a winter collection will consist of the suitable colours, fabric and patterns. One

can see ample woolens, polo necks, blues and browns etc., for this type of collection. Similarly, summer collections will be more casual, cotton, whites etc. Fashion is perishable. It is an abstract phenomenon that is here now and gone tomorrow. The trends cycle have shortened drastically from a few months to a few weeks. Spaghettis are passe and halter necks are in, pantsuits are extinct and skirts are hot. Thus with the speed of change, one needs to be alert and observant in fashion designing. In fact it is the designers that determine the trends of the season and what one should or shouldn't wear. Celebrities, socialites, models etc form the mass couture-carriers who showcase the latest fashion.

Thus fashion designing is a very challenging profession but definitely in the cult of glitz and glamour. With a plethora of local level, regional level and national & international level fashion events like IMG fashion Week, Lakme Fashion Week etc, fashion designing is considered to be one of the trendiest professions today. Indian designers have made a mark in International markets. With the onset of recognition by International brands, the government has fortunately started taking fashion designing as serious business and have tried to set a method to the madness. Several fashion designing institutes like National Institute of Design (NID) in Ahmedabad, National Institute of fashion Technology, Sophia Polytechnic etc., are some of the best Fashion Institutes in the country that have given a breed of new age fashion designers to India.

All in all, fashion designing is the hippest profession today. But no gains without pains, especially with intense competition around. Fashion designing is a lucrative career but one needs to work very hard to keep up with the demand and competitive people. Late nights, continuous hours of work, rejection, disappointment, it's all a part and parcel of the fashion world. To become a good designer it is essential to be aware of the relationship between the

basic principles and elements of design and their application to fashion. This understanding will greatly assist the actual designing of all apparel and accessories.

## LINE

A line is a collection of points put together. Since line is the major factor in developing a pleasing appearance, line and the things you can do with it deserve first place in the choice of your style. The total appearance you present to the world contains a profusion of line-not only in your clothes but in the contour of your face and figure. Notice how lines define the basic body outlines, how they separate the form into various areas.

Necklines, sleeve lines, waistlines, hemlines etc., act as divides which form shapes and spaces. They make the design interesting and pleasing to the eye. If the direction and shaping and spacing of each line is not carefully plotted, the result can be of a major confusion.

In order to use lines correctly, it is important to understand that lines have both functional and emotional significance. Although there are two types of lines:

1. Straight lines;
2. Curved lines,

They offer infinite variety. Straight lines may follow the vertical, horizontal or diagonal direction; they can be continuous or broken and combined into angles. Curved lines can be rounded as full moon or flattened until they appear almost straight. No matter what form a line takes, it has an inherent power to create strong impression. Based on Psychological association, Visual effect, Structural use and the decorative use the lines can be classified under various categories as specified underneath:

### Types of Straight Lines

1. *Straight lines:* These lines oppose the natural curves, counters roundness and give slimness. The structural

use of these lines is for the seams, yokes, fabric patterns, garment edges, stiff fabrics, darts, pleats, panels, etc, these lines give a feeling of Powerfulness, stability, masculinity, dignity and surety.

2. *Vertical lines:* These lines give slimness and height. Their structural use is for the shirtfronts, back and side seams, darts, pleats, tucks, fabric pattern and sleeveless garments. These lines give a feeling of boldness, sophistication, strength, alertness and elegance.
3. *Horizontal lines:* These lines shorten, broaden and widen the natural contours of the body and give a feeling of relaxation, calmness, gentleness and serenity. The structural use of these lines is for the shoulder pads, yokes, waistlines, hemlines, and wide necklines. Wide sleeves, wide collars, darts, panels, fabric pattern, wide brimmed hats, midriffs, belts etc.
4. *Diagonal lines:* These lines give slimness if more vertical and width if more horizontal. Psychologically these lines give a feeling of being dramatic and restless, being of an indecisive nature and may unite contrasting directions. The structural use of diagonal lines is for the panels, seams, fabric patterns, darts, 'V' necklines, collars and lapels, flared trousers, 'A' - line skirts, bias cut stripes, raglan sleeves, etc.
5. *Zigzag lines:* Zigzag lines are angular and counter roundness. They enlarge the figure and are eye-catching. These lines are a series of connected diagonals and give a feeling of being erratic, intense, abrupt and non-serious. The structural use of these lines is for the pleats, garment edges, fabric pattern knotted collar, and lapels and herringbone.
6. *Perpendicular lines:* These lines attract attention because of their disturbing nature. The structural use of these lines is for the seams, yokes, darts, bands, and tabs. etc.

7. *Alternating lines*: These lines are generally eye-catching, dominant and may be too violent. Psychologically these lines are associated with sharpness, movement, speed, confusion and excitement. The structural use is for the seams, fabric pattern, formation of checks, etc.
8. *Cross-over lines*: These lines create a focal point at the point of intersection because of their contrasting nature. The structural use of these lines is for the wrap-over skirts and bodice, seams with stripes or checks, fabric pattern, shoulder straps, etc.
9. *Converging lines*: These lines emphasise direction and are psychologically associated with weight and youthfulness. The structural use of these lines is for Decolletage neckline, yokes, pleats, darts, seams-panels, collars, handkerchief, hemlines, fabric pattern, godets, etc.
10. *Full curve*: Full curves emphasise body curves, counters thinness and sharp angles and are better suited on thin figures. Psychologically these lines are associated with activeness, roundness, forcefulness, femininity and exuberance.
11. *Soft curve*: Soft curves gently emphasise the body curves and are flattering. Psychologically these lines are associated with passive nature, gentleness, femininity, smoothness and youthful nature. The structural use of these lines is for the princess lines drapes, scoop necklines, soft fabrics, seams, yokes and garment edges.
12. *Undulating lines*: These lines give roundness and soften the angles. Psychologically they are associated with femininity, sensuousness, gentleness, fluidity and gracefulness. The structural use of these lines is for the flowing fabric edges, fabric patterns, frills and ruffles.

13. *Ogee*: These lines soften the angles and are more flattering and give a feeling of sensuousness, femininity, seductiveness and gracefulness. Structurally they are associated with Panel lines and fabric patterns.
14. *Opposing curves*: These lines give a harmonious movement. Focal point and emphasise direction. Psychologically they are associated with femininity. The structural use of these lines is for the panel lines, drapes, and fabric pattern, wrap over garments and garment edges.
15. *Spiral lines*: The lines have a focal point and are eye catching. They are natural, continuous and feminine. The structural use of these lines is for the floral patterns.
16. *Thin lines*: These lines give a visual effect, lightweightness and have a receding nature. Psychologically they create a feeling of delicacy, calmness, fragility, subtleness and weakness. The structural use of these lines is for the seams, garment edges and darts.
17. *Thick lines*: These lines are heavy, add weight, visually move forward and attract attention. These are forceful, assertive, masculine and confident. Structurally they are used for borders, inserts, binds, bands and fabric patterns.
18. *Even lines*: These lines are smooth and flattering and give a feeling of firmness, certainty, steadiness and regularity. Structurally they are used for seams, edges, pleats, fabric patterns, etc.
19. *Uneven lines*: These lines emphasise bulges and add interest. They are wobbly, unstable and indecisive. Structurally they are used for seams and garment edges.
20. *Long lines*: These lines emphasise direction, length or width and are continuous, graceful, free flowing and

smooth. Structurally they are used for garment edges, seams, garment openings, hemlines and gathers.

21. *Short lines*: These lines divide the space and adds interest. They give a feeling of abruptness, efficiency and blindness. Structurally they are used for tucks and darts etc.
22. *Broken line*: These lines are rhythmic and attract attention. Psychologically they are associated with interruption, uncertainty, casualness and structurally they are used for unpressed pleats
23. *Textured lines*: these lines add weight and attract attention. They are decorative and busy. Structurally they are used for fabric patterns.

Line refers to the edge of the outline of a garment and the style lines divide the space within the garments. Lines can create visual effects/ illusions, such as height, which can lengthen or shorten the figure, and with which we can make a figure seem thinner or heavier.

## SILHOUETTE

The silhouette (style of a garment) is the most dominant visual element of the garment and it dictates a great deal of other styling features/elements that make up a design. Fashion circles often focus on a specific silhouette but because of the diversity of modern line many kind of apparels are used concurrently and a person usually has a great variety of silhouettes in his or her wardrobe at the same time. All people do not wear the same silhouettes. People wear different silhouette according to the season, occasion and taste.

Silhouettes are modified or altered by adding fabric padding at various parts of the body or corseting the waist or bust to create specific illusions. The shape of the silhouette usually compliments the shape of the body, but exaggeration is often used to create a specific or special effect or balance and emphasis a part of the body, that is currently in focus or fashion.

The basic silhouettes are:

1. Slim line silhouette
2. Soft dressing silhouette
3. Shoulder wedge silhouette
4. Hour glass silhouette
5. Extreme volume silhouette.

### **Slim Line Silhouette**

Pants, tight fit skirts slacks, shorts, etc., are a few examples of slim line silhouettes. Slim line silhouettes hug the figure with very little space between the garment and the body. It is a "classic tailored" silhouette. The tailored silhouette for women is very exceptable for business apparel, because, it is similar to men's business suit. Pants or trousers must fit well to enhance the figure. The illusion of height is easily created with pants, jeans, slim fitted blouses and other slim line silhouettes.

### **Soft Dressing Silhouette**

Straight gowns, pleated skirts, parallels, jackets, regular fit jeans, burmudas, tops, dungaries etc., are a few examples of soft dressing silhouettes. Sot dressing silhouette describes a garment styled with more ease and fuller fit. Softer, thinner, and flowy fabrics are usually used for this type of silhouette.

### **Shoulder Wedge Silhouette**

This uses a padding or fullness, to enhance the visual width of the bodice at the shoulder, this gives the figure a masculine width at the shoulder and tend to make the hip area look narrower by comparison and usually the bottom is slim in contrast to the shoulders. This silhouette also makes a person seam taller. Slight padding on sleeve extention can effectively balance any figure and squaring the line of the shoulder makes a person seam tall and gives

a more youthful look e.g.:—few examples of shoulder wedge are coats, jackets, Raglan sleeves, Batwing sleeves, Leg-o-mutton sleeves, dolman sleeves etc., cut with a great deal of fabric under the arm will create a wedge silhouette. This silhouette is a style variation that tends to be popular when more masculine values are attributed to woman.

### **Hour Glass Silhouette**

This is a feminine silhouette because it contrasts full bust with wide hips. The narrow waist is the accent that provides constant contrast between wider areas of the figures. This has been a dominant theme throughout fashion history because it emphasises typical feminine figure characteristics. In the past waist inches were pulled to make female waists look extremely slim. Sometimes these cruel efforts to make flexible waists smaller, wear so harsh that women fainted from being corseted. Flared skirts teamed with tops that have fuller sleeves and a very fitted waist create thin illusions. This silhouette is very feminine, i.e. the width of the hips and bust are increased by contrast with a smaller waist.

### **Extreme Volume Silhouette**

Extreme volume silhouette is sometimes a popular fashion. To achieve this look, several layers clothes are worn at one time. Layering several bulky garments over each other to create an extreme figure volume is an example. This silhouette is particularly suitable for cold weather dressing and is often found in outer wear. This fullness of the garment successfully camouflages many figure problems and large women have a variety of wardrobe choices. When fashion decreases fullness is beautiful. This silhouette is very dramatic and effective on a tall woman and it will successfully camouflage angular body lines if worn by tall slender women. Full volume silhouette is very typical of warm winter clothing.

## TEXTURES

Also refers to the appearance of the fabric; texture means the hand i.e., the way fabric feels. The designer develops this vogue (knowledge, trend), awareness of how fabric feels, i.e., the 'tactile sense' (the knowledge of how to feel the fabric) into a conscious knowledge of the appropriate texture for specific garments, e.g., a designer uses his tactile sense to study the elevations of fabric just as a potter experiences the basic stone or clay with his hand and eyes. The design student should begin to develop a tactile sense by sourcing and draping fabrics. Look at the fabric and feel its texture, experiments with fabrics should be done to see how they cover the body and fall on it.

## COLOUR VALUE

Colour is the first thing that a customer notices about a garment. It costs a manufacturer very little to change colours, but any new colour will stimulate the sale unexpectedly. Two factors influence designer's choice of colour:

1. The commercial colour prediction.
2. Whether the colours are appropriate and flattering for specific customers.

Today's designer should study information provided by professional colour services, like colour forecast by ICA, promo style, The colour box etc. These colour services predict colour trends for various markets 18 months ahead before the merchandise are shipped to retailers. They are especially helpful while designing ranges for export markets. Aesthetic colour decisions are based on selecting flattering colours and applying colour to the body to create visual illusions.

## COMPLEXION AND SKIN TONE

People tend to select colours that are compatible with their complexions. Colour prediction services often ignore the

fact that colours should flatter people. There are two basic complexion types:

1. Warm-toned skin with yellow undertones and
2. Cool-toned skin with blue-pink undertones.

Colours that compliment the basic colour characteristics of the wearers' skin. Tones will flatter them and make them appear healthier and prettier. Warm Skin tones should select colours with a yellow undertones and cool skin tones will be most flattered by colours with a blue base. Using red as an example, a rich tomato red would be most flattering to a warm skin tone. The cool version would be a blued red to magenta. Some lucky persons are able to wear both colour palettes.

Environment also affects the use of colour. People who live in warm climates tend to have more pigment in their skin due to overexposure to the sun. Warm climates encourage people to wear bright colours that compliment darker complexions. Light colours reflect heat making them popular warm-weather colours too.

As one ages, the skin and hair colouring become less intense. Harsh, bright colours and clear pastels are generally less attractive on the older person. Just as nature softens personal colouring by the aging process, so the mature individual should soften their colour choice. Vivid colour contrast with fading skin & hair that emphasise age.

Colour applied to the body will create a variety of illusions. Designers should be aware of how colour can highlight parts of the body and minimise figure problems, especially if designing for a special -size woman. In a crowd, the lighter colours prompt out and darker colours blend with background. Light colours have power to attract the eye and hold attention. The contrast between light and dark is used frequently to create effectively illusions that disguise figure problems. Contrast accents different parts of the body and creates subtle illusions. This makes it possible to camouflage figure irregularities by drawing the

eye to one's most attractive feature. Dark areas recede visually, so an area of the body that is disproportionately large can be balanced by covering it with a dark garment. Light colours stand out, which makes light areas seem larger than they are especially when contrasted with dark areas. The contrast between light and dark colour is used frequently to create effective illusions that disguise figure problems. Contrast accent different parts of the body and create subtle illusions.

It is selection or arrangement of colours in such a way to give pleasant and attractive appearance. Naturally, it is important for any colour combination to give a feeling of harmony, to produce such a well co-ordinated arrangement or combination of colours that they all seem to go well with each other. Colours should seem to belong together and no colour should look conflicting or out of place. This may be done by combining related colours in monochromatic harmony. It may also be achieved by using contrasting colours in a complimentary harmony. Whichever you choose one colour should be emphasised with the other playing subordinate role.

### **FORM AND SHAPE**

Form and shape are areas or masses, which define objects in space. Form and shape imply space, indeed they cannot exist without space. There are various ways to categories form and shape. Form and shape can be thought of as either two-dimensional or three-dimensional. Two-dimensional form has width and width and height. It can also create the illusion of three dimension objects. Three-dimensional shape has depth as well as width and height.

Form and shape can also be described as either Organic or Geometric. Organic forms such as the snow-covered mountains typically are irregular in outline, and often asymmetrical. Organic forms are most often thought of as naturally occurring. Geometric forms are those, which correspond to named regular shapes, such as squares,

rectangles, circles, cubes, spheres, cones, and other regular forms. These forms are most often thought of as constructed or made. However, not all objects are geometric, many designed forms have irregular contours.

Shape is the series of lines of different types, which gives a basic silhouette, from which a design is created. Shape can affect the proportions and can either be harmonious or contrasting in its conception. The basic silhouette can be changed by raising or lowering the hems of shirts, jackets, sleeves, necklines, and also by widening or narrowing skirts, sleeves or necklines.

### PROPORTION

Proportion or scale or relationship of various spaces to the whole space. Good design will result from the correct proportion used between the different sections of the garment. The proportion can enhance or distort the garment depending on usage, but must be related to overall appearance. Proportion should be studied carefully to achieve the correct balance in the design.

Proportion refers to the relative size and scale of the various elements in a design. The issue is the relationship between objects, or parts, of a whole. This means that it is necessary to discuss proportion in terms of the context or standard used to determine proportions. The timeless simplicity achieved by a perfect proportion makes some classic fashion wearable for many years. By changing the proportion of a design different styles will result from the same basic idea.

The relationship in a design of one part to the other and of all the parts to the whole is termed as proportion. The individual parts of apparel such as collars, cuffs, pockets, sleeves, trimming, patterns and textures should be in relation to the size of the wearer and to each other. Each element or style feature of your dress should compliment each other, they should look comfortable with each other.

## **BALANCE**

Balance refers to equilibrium and security. It is achieved by grouping lines, shapes and colours about or around the centre line in such a way that the attraction of both the sides of the centre is equal and a sense of repose is conveyed. Balance may be created by having two sides of a design identical or different but placed in such a way that the effect is pleasing. Balance is the concept of visual equilibrium, and relates to our physical sense of balance. It is a reconciliation of opposing forces in a composition that results in visual stability. Most successful compositions achieve balance in one of two ways: symmetrically or asymmetrically.

### **Symmetrical Balance**

Symmetrical balance can be described as having equal "weight" on equal sides of a centre line. It may also be referred to as formal balance. Formal balance or symmetry is achieved by identical interests or details or design placed on either side of an imaginary centre line. There is a sense of dignity in formal balance. When the elements are arranged equally on either side of a central axis, the result is Bilateral symmetry. This axis may be horizontal or vertical. It is also possible to build formal balance by arranging elements equally around a central point, resulting in Radial symmetry. There is a variant of symmetrical balance called Approximate symmetry in which equivalent but not identical forms are arranged around the central line.

### **Asymmetrical Balance**

It is also called Informal Balance. It is more complex and difficult to envisage. Informal balance or asymmetry requires more natural artistic ability to achieve the required effect. Informal balance must be arranged in such a way or manner as to give each part a relative degree of importance, and invite the eye to travel without

interrupting the overall design. Unequal weights or different designs are arranged at different distances from the centre to achieve informal balance. Unequal weights and dissimilar designs placed at equal distance from the centre destroy the balance. Asymmetrical balance involves placement of objects in a way that will allow objects of varying visual weight to balance one another around a central point. Balance can also be achieved through the use of colour. Darker hues of higher intensity have a greater eye asserting ability than a lighter hue.

### UNITY

Unity means that all the elements of design work together to produce a successful visual effect e.g.

1. Style lines on all areas of the garment should have comfortable angles and compliment each other.
2. Strips and pleats used on the straight grain should match, particularly on sleeves that hang parallel to the body. Strips and pleats cut on bias can be combined with garment pieces cut on a straight grain. The lines in the fabric, garment construction and all accessories must be consistent. They should be related to each other. Unity or harmony can be achieved with a total blending of colours, designs, textures, and lines with the personality of an individual.

Unity is the underlying principle that summarizes all of the principles and elements of design. It refers to the coherence of the whole, the sense that all of the parts are working together to achieve a common result, a harmony of all the parts.

Unity can be achieved through the effective and consistent use of any of the elements, but pattern- that is, underlying structure- is the most fundamental element for a strong sense of unity. Consistency of form and colour are also powerful tools that can pull a composition together. However, unity also exists in variety. It is not

necessary for all the elements to be identical in form providing they have a common quality of meaning or style. For, example, fashions from a specific period share common features of silhouette, materials, and colour that identify the style of the day, or look of a particular designer. Unity can also be a matter of concept. The elements and principles can be selected to support the intended function of the designed object, the purpose of the object unifies the design.

## **RHYTHM**

Rhythm is the repeated use of lines or shape to create a pattern. Rhythm also refers to a feeling of movement. Rhythmic use of design elements lead the eye through a design giving the garment a continuity e.g.:- use of laced trims and contrasting cuffs and collars lead the eye through the design with a successful rhythm. The eye should travel without effort from one part to the other.

Rhythm can be described as timed movement through space, an easy, connected path along which the eye follows a regular arrangement of motifs. The presence of rhythm creates predictability and order in a composition. Rhythm depends largely upon the elements of pattern and movement to achieve its effect.

Rhythm can be created in a number of ways. Linear Rhythm refers to the characteristic flow of individual line. Linear rhythm is not as dependent on pattern, but it is more dependent on timed movement of the viewer's eye. Repetition involves the use of patterning to achieve timed movement and visual 'beat'. This repetition may be a clear repetition of elements in a composition, or it may be a more subtle kind of repetition.

Alternation is a specific instance of patterning in which a sequence of repeating motifs are presented in turn, (short/ long, fat/thin, round/square, dark/light) Gradation employs a series of motifs patterned to relate

to one another through a regular progression of steps. This may be a gradation of shape or colour. Some shape gradations may in fact create a sequence of events, not unlike a series of images in a comic strip.

## EMPHASIS

Emphasis is created by a centre of interest; by focusing the attention on a specific area of the garment. The dominant idea expressed in a dress is called an emphasis. The designer uses the principle of emphasis to direct the eye of the customer. Figure problems can be camouflaged by emphasising the positive elements of the body and de-emphasising the negative ones.

Emphasis is also referred to as the point of focus, or interruption. It marks the locations in a composition, which most strongly draw the viewer's attention. Usually there is a primary, or main, point of emphasis, with perhaps secondary emphasis in other parts of the composition. The emphasis is usually an interruption in the fundamental pattern or movement of the viewer's eye through the composition, or a break in the rhythm.

Emphasis can be created in a number of ways:

1. Repetition creates emphasis by calling attention to the repeated element through sheer force of numbers. If a colour is repeated across a map, the places where certain colours cluster will attract your attention.
2. Contrast achieves emphasis by setting the point of emphasis apart from the rest of its background. Various kinds of contrasts are possible. The use of a neutral background isolates the point of emphasis.
3. Contrast of colour, texture, or shape will call attention to a specific point. Contrast of size or scale will as well. Placement in a strategic position will call attention to a particular element of a design.

**FIGURE VARIATIONS**

The ambition of every man/woman interested in clothes is to show himself/ herself to the best advantage. Very few women possess ideal proportions and most figures have at least one major figure fault. By selecting the right clothes for your figure type, the illusions of proper figure can be achieved. The latest fashion should be adapted to suit your figure. Unless you ruthlessly face up to your figure faults, you will never be able to disguise them. Use clothes to flatter your figure problems as well as to hide your figure faults. These are four basic figure variations for an average figure:

1. Short figure
3. Angular figure
2. Tail figure
4. Heavy figure.

**Short Figure**

Short figured people usually are the ones who want to appear taller and seek vertical illusions in their clothes to give an illusion of height. The suitable designs for women with such figures are 'A' lines, princess lines, coatdresses, narrow front panels and gores. Fabrics for such type of figures are soft fabrics in light colours, light or medium weight fabrics with small pattern design. Short figured people should keep their costumes in one colour and give a trim appearance with matching belts. Women should avoid full skirts and flare below the hips, tired skirt should also be avoided. Avoid using horizontal lines and dots on the dress material. Illusion of height can be created by fabrics with vertical lines.

**Tall Figure**

People with tall figure can wear wide collars, boat necklines, full sleeves, and fuller dresses. Bright colours add a bit of fullness to the figure. Colour contrast at

waistlines and hip will make figure seem shorter and fuller. Any type of fabrics can be worn. Spots or dots, tartans called tartan pleats or kilts, checks etc. Horizontal or vertical strips or prints, of any size can be worn by tall people. Suitable dresses for tall figured women are; skirts that are flared, gathered, pleated, tired, trumpet line. Bodice should be plain and uncluttered. Wear boat shaped necks; wide square or round, face framing necklines and large collars. Avoid wearing slim princes lines and very thin vertical lines. Never wear long skinny sleeves in knitted fabrics. Mostly all types of silhouettes go along with this type of a figure.

### Angular Figure

The women with angular figures can wear to their advantage the extremes of fashion from Paris, which could be a disaster on other figure types. This figure type is perfect for modelling and in the world's biggest fashion centres. High fashion models generally go in for this type of figure. The essential thing in dressing is not to emphasis the bones. The problem of angular figure is to conceal bone structure which is a part of their thinness.

The solution is to soften the outlines and create the illusion of feminine curves, by avoiding bare necklines and shoulders and clinging fabrics which hug to the figure/body choose clothes which fall semi-fitted on the body and which cover the body. Choose clothes which fit in at the waist; emphasise on the waist because waists are very narrow. Wrist and hips are the best assests of the angular figure. The skirts should bell out from the waist to give grace, and can be gathered, pleated or tired. Avoid dresses, sheath ones particularly, as straight dresses are not suitable for this figure type.

### Heavy Figure

The figure problem of this type is all over heaviness, and clothes should be selected to trim the figure. Wear clothes which fall away from the figure and fit easily clinging

garments which would the contour too closely and emphasise the bulk, should be avoided. Any fabric which adds weight e.g., heavy piled fabric or any fabric which creates volume should be avoided. Do not wear large dots or checks. Big bows, print or horizontal strips should be avoided. Colour should be neutral or dark to give a neater, softer silhouette. Light and vivid colours make you look large and more conspicuous. If the legs are too heavy, women should wear the skirt a little longer than the current fashionable length. Wear dull finished silk, crapes, fine wools and small misty all over prints, soft clear colours depending on the skin tones.

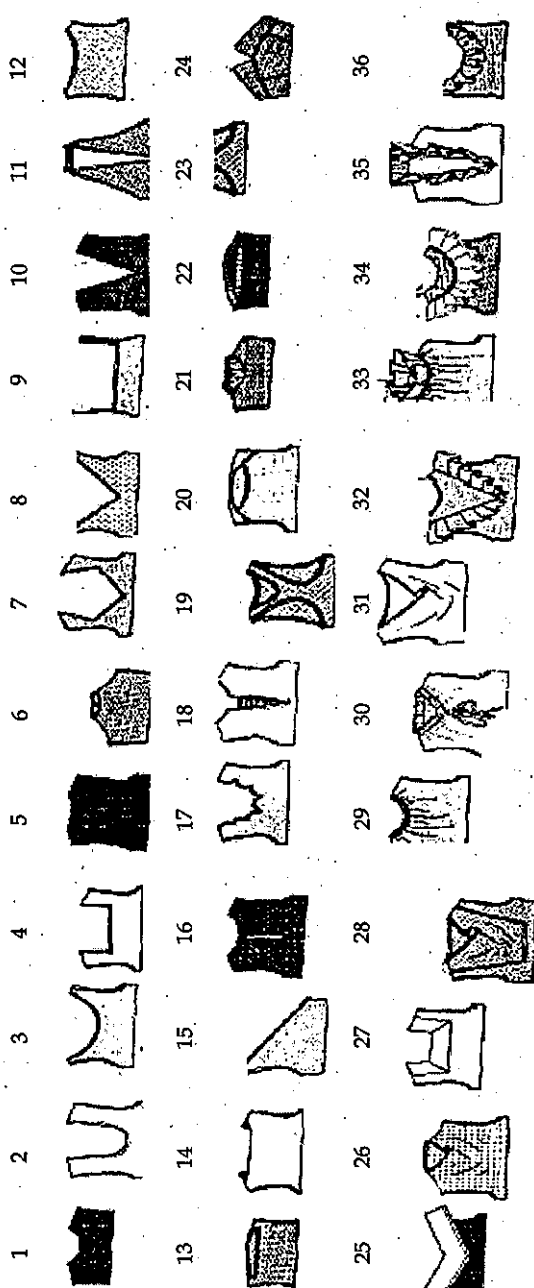
Vertical lines accentuate the height and take away the width. Strips, pleats, tucks, decorative seams and row of buttons emphasis the direction in which they travel giving nice illusions. Endeavour to dress slim at all times, for women, skirts should be gently flared or gored from the hips or pleats at the centre front or back. Avoid flare and trimmings at the sides.

### NECKLINES

A neckline is an outline or contour of the bodices around the neck or shoulders. It frames the face and directs the eye to or away from the face. A neckline must have an opening or should be large enough to pull through the head. Finishing can be given to the neckline with facing, piping binding and ribbing or with a collar for instance.

#### Types of Necklines

- *Basic/Plain/Jewel*: A simple round neckline, which would be faced.
- *U-Neckline*: A deep neckline in the shape of a 'U'.
- *Scoop*: A shallow but wide neckline.
- *Square*: A square neckline, which would be faced with mitred corners.



Neck Lines 1. Basic/Plain/Jewel 2. U-Neckline 3. Scoop 4. Square 5. Horseshoe 6. Built up/Funnel 7. Sweet heart 8. Décolleté 9. Wide Square 10. V-Neckline 11. Halter 12. Bateau 13. Slashed 14. Sabrina 15. One shoulder 16. Keyhole 17. Scalloped 18. Inset 19. Racing/ Athletic 20. Envelope 21. Crew 22. Wrap-over Bateau 24. Strapless 25. Off the shoulder 26. High Collar 27. Mitred Neck 28. Collar Inset 29. Elasticised 30. Drawstring 31. Wide Collar 32. Graduated Ruffle 33. Sugar Bag 34. Ruffle Set in Seam 35. Pleated ruffle 36. Circular Ruffle

- *Horseshoe*: A deep horseshoe-shaped neckline, which would be faced.
- *Built up / Funnel*: A high neckline that extends up the neck.
- *Sweetheart*: A feminine, angular, shaped neckline that frames the breasts and neck.
- *Decollete*: A deep and wide neckline popular in the nineteenth century.
- *Wide Square*: As the name suggests a wide, square shaped neckline that would be faced.
- *V-Neckline*: A faced V-shaped neckline.
- *Halter*: The bodice of a garment is extended round the neck to form straps and a fastening. There is usually only a band of fabric across the back.
- *Bateau*: A wide and shallow neckline that would be faced.
- *Slashed*: A shallow but wide neckline, it is effectively a slit in the garment that is faced.
- *Sabrina*: A wide but shallow neckline that has insets over the shoulder. These may be in a contrast or self-fabric.
- *One Shoulder*: An asymmetrical neckline where the garment is supported by strapping on one shoulder only. The other is bared.
- *Keyhole*: A jewel neckline with a slit at the front or the back which is faced and fastened, edge to edge, at the neck with a single button and rouleau loop.
- *Scalloped*: A decoratively edged neckline that would be faced.
- *Inset*: A jewel neckline with a slit that has an elasticated insertion.
- *Racing/ Athletic*: The main focus is on the back where the neckline and armholes are cut away to create and 'X' effect. Used in sportswear and casual wear.

- *Envelope*: A wide neckline where the back overlaps over the front and is usually made from a knitted fabric and trimmed with a fine rib.
- *Crew*: A snug-fitting neckline trimmed with a knitted rib as in tee shirts and sweatshirts.
- *Wrap-over Bateau*: Similar to the envelope neckline but with a narrower overlap not quite reaching to the sleeve. This example is finished with a knitted rib.
- *Strapless (Princess Line)*: A princess line bodice with a band and a notched front but no straps for support.
- *Off the Shoulder*: A feminine neckline where the shoulders are bared revealing the whole neck.
- *High Cowl*: A draped neckline, usually cut on the bias to create more soft folds of draping. This example has a high cowl draping from a funnel or built up type neckline.
- *Mitred*: A square shaped neckline finished with a deep band with mitred corners.
- *Cowl Inset*: There is a large inset of fabric, cut on the cross, to allow for soft drapes.
- *Elasticised*: A full neckline that is controlled by elastication.
- *Drawstring*: As the elasticised neckline but here controlled with an adjustable drawstring.
- *Wide Cowl*: See the high cowl but here wider and very draped.
- *Graduated Ruffle*: A V- shaped inset of fabric that is trimmed with a pleated and graduated ruffle. The graduation ends at the point of the 'V'.
- *Sugar Bag*: A full neckline that is pulled together with a drawstring or band a few inches down from the edge, this creates a frill effect.
- *Ruffle Set in Seam*: A curved neckline with an inset of fabric outlined with a pleated ruffle
- *Pleated Ruffle*: A V-shaped neckline trimmed by a graduated and pleated frill.

- *Circular Ruffle*: Rather like the Pierrot collar but not as deep.

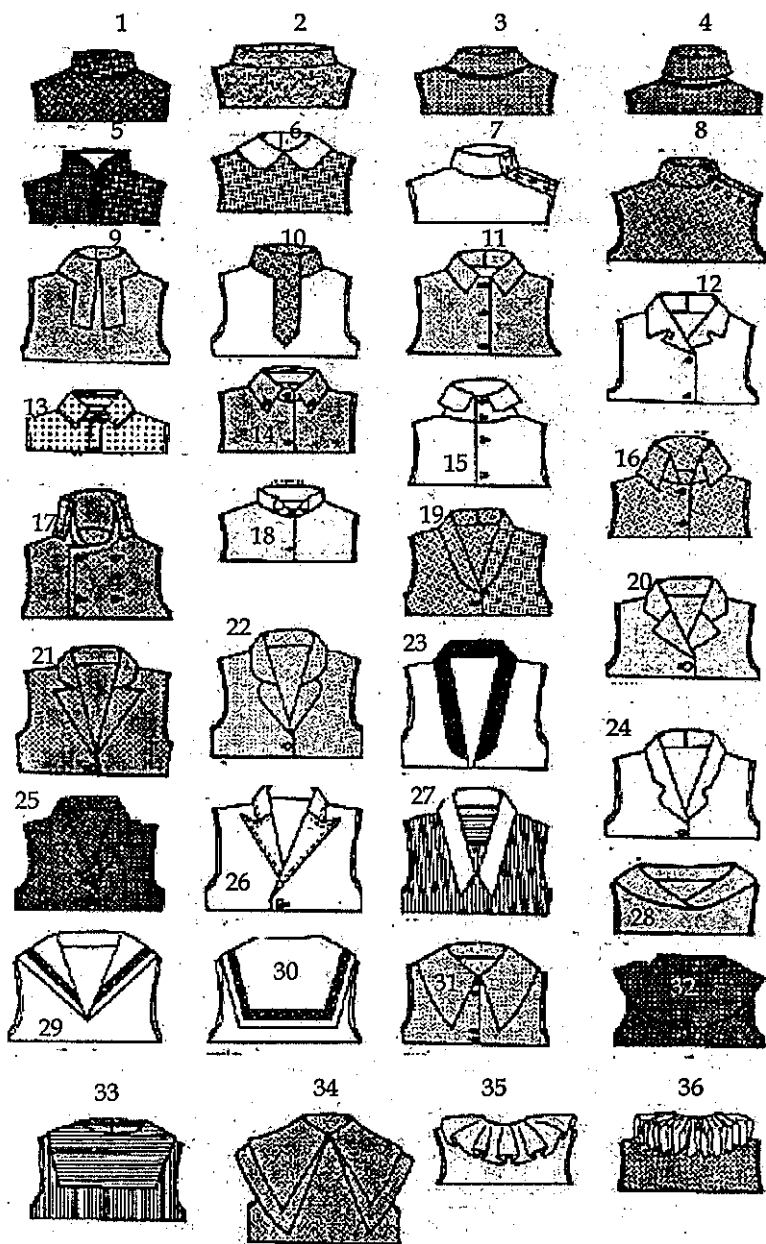
## COLLARS

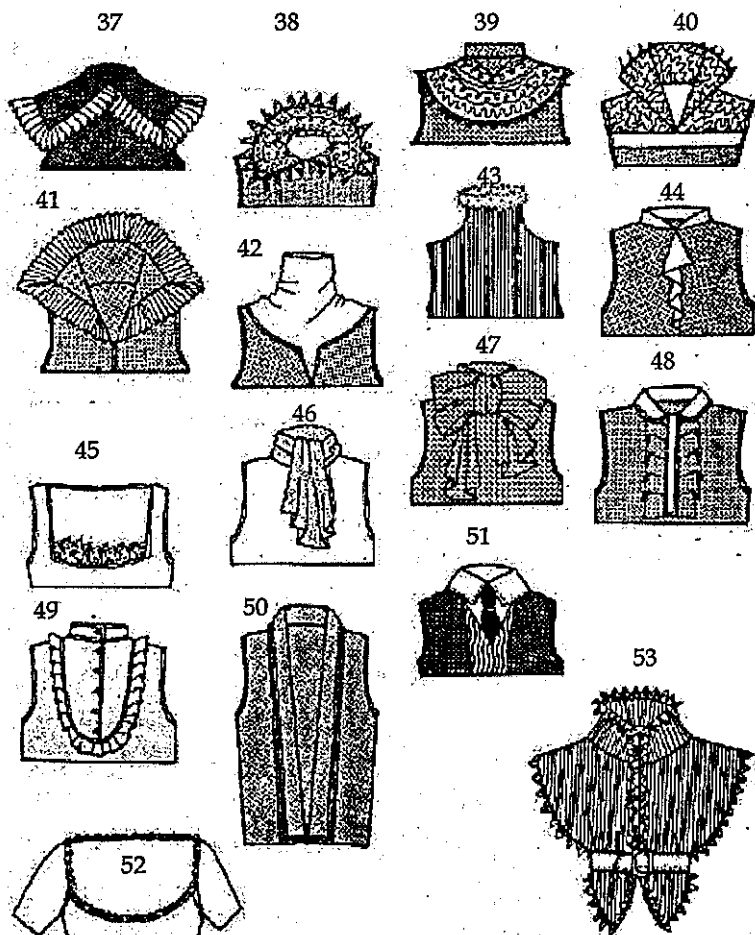
A collar is an important part and feature of the garment because it frames and directs the eye towards the face. The designs are based on three basic styles from which a designer will create many variations in the shape of collars. Apart from being a decorative feature, the collar may also serve as a practical part of the design. Like the neckline, the collar is also a decorative feature, which frames the face and enhances the appearance of both the garment and the wearer. It is also functional as it provides warmth and protects our neck. The proportions of the collar are important to the design of the garment related to the other features such as yokes, pockets, cuffs etc. and the whole silhouette. The three basic styles of collars are:

1. Stand collar
2. Flat collar
3. Roll collar.

The shape when made will vary depending on the thickness and texture of the fabric. Collar can be attached to the neckline; convertible collars can be worn open or close.

- (a) *Stand*. It is a collar band standing upright from neckline providing height to the collar. The underneath part of the collar that supports the fold over section. It is of varying heights according to the collar design.
- (b) *Fall*. When the collar attached to the neckband is folded back and the way it falls on the body. It the upper part of a collar, which falls over neck from the stand.
- (c) *Style Line* – The design or shape of the outer edge of the collar is the style line. It the shape of the outer





Types of Collars. 1. Straight band 2. Bateau 3. Ring 4. Polo turtle roll 5. Mandarin/Nehru 6. Peter Pan 7. Assymitrical straight band 8. Cossack 9. Bishop 10. tab 11. Convertible Closed 12. Convertible Open 13. Shirt collar with stand tailored 14. Button down 15. Giraffe 16. Danton 17. Napoleon high coat 18. Wing tipped 19. Shawl 20. Revers 21. Fish Mouth revers 22. Clover revers 23. Tuxedo 24. Shaped shawl 25. Italian 26. L-revers 27. Chelsea 28. Portrait 29. Sailor (front) 30. Sailor (back) 31. Puritan 32. Round bertha 33. Square bertha 34. Dutch 35. Poerrot 36. Ruff 37. Falling band 38. Van Dyke 39. Gorget 40. Partlet 41. Standing band 42. Barbett 43. Carcaille 44. Cascade-jabot 45. Modesty piece 46. Ascot 47. Bow tie 48. Central stiched ruffle 49. Bib with Frill 50. Tuxedo 51. Eton 52. Collarette with décolleté 53. Caézou

edge of the collar, it is also known as collar edge. It can be varied to any extent by the designer.

- (d) *Break Line* – It separates the stand and the part of the collar which turns over. It is the line, which runs from the collar to the opening. It is the line on which the lapel turns back and the fall turns over the stand.
- (e) *Roll* – It forms a stand of either its own or when attached to the neckline, with a band. If the neck edge is similar to the shape of the neckline, the collar will be almost flat. The neck edge of the collar influences the roll. The more the outer edge of the collar is reduced, more the collar rolls at the neckline.
- (f) *Lapel* – A lapel is the front facing of a coat or jacket which is joined, to the collar and is folded back depending upon its shape and length. It is also known as the peak or the notch level.

### Variations of Collar

- *Straight Band*: A strip of fabric encircling the neck.
- *Bateau*: A straight band placed on a wide neckline.
- *Ring*: A band of fabric that is shaped in towards the neck.
- *Polo/Turtle/Roll*: A wide piece of fabric, usually knitted or cut on the cross, that folds back to form a roll neck collar.
- *Mandarin/Nehru*: An Oriental collar that is a straight band, but that opens at the front and has curved edges.
- *Peter Pan*: A flat, curved shaped collar with no stand.
- *Asymmetrical Straight Band*: A straight band of fabric with the fastening to one side. There is a placket supporting the button fasten.
- *Cossack*: A narrow band around the neck that is fastened on one side. It is similar to the asymmetrical straight band.

- *Bishop*: A shirt-type collar with points extending into tab shapes and no fastening down the front.

## SLEEVES

Sleeve is that part of the garment, which covers the arm portion of a body. The appearance of the sleeve can be determined by the position of the armhole, under arm seams, fullness added to any part of the sleeve and to the sleeve hem or cuff. As the arms are mobile, the sleeve should allow enough room for the movement.

There are many different designs for sleeves and ways of cutting armhole and making up. There are two categories of sleeves:

1. Set in sleeves
2. Cut in one piece sleeves

### Set In Sleeves

Cut separately from the bodice of the garment and fitted into the armhole shape. The standard set-in sleeve should smoothly cover the upper arm and shoulder socket. The armhole seam should fall on the shoulder where the socket joins the arm.

### Cut In One Piece Sleeves

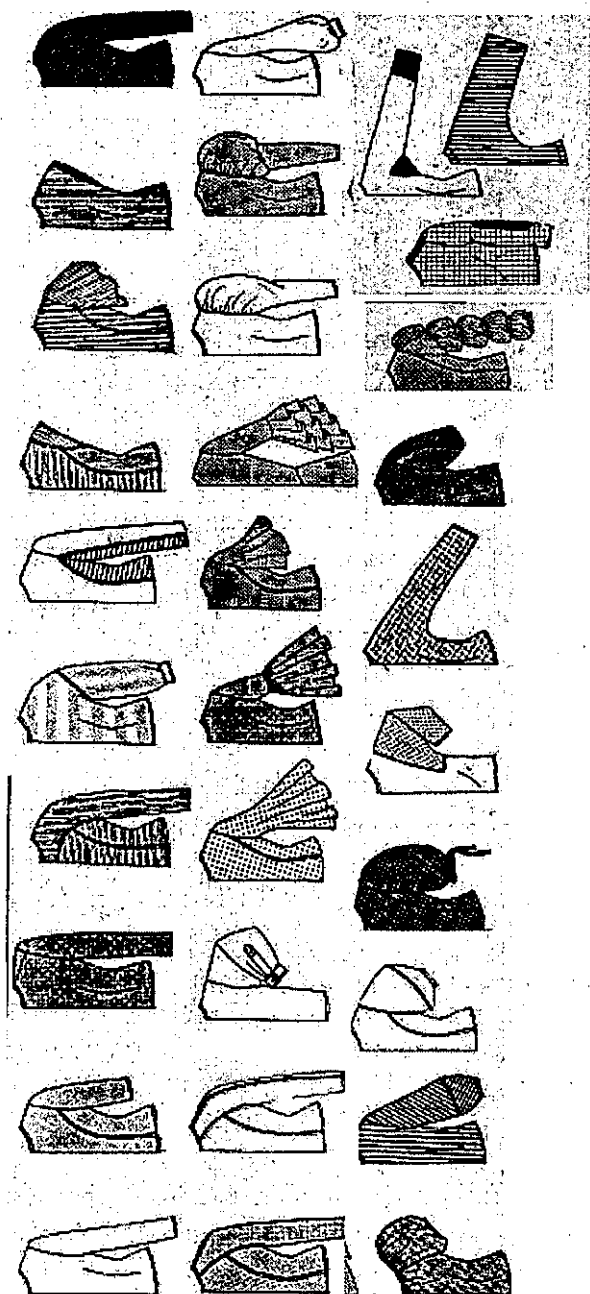
Cut in one piece with the bodice of the garment in called cut-in one sleeve, for example, Japanese Kimono sleeve, Raglan sleeve, Batwing, Dolman and Magyar sleeve.

### Sleeve Types

**Set in:** The sleeve is shaped around the arm and has a seam on the underarm. The top of the sleeve, the sleeve head, is curved to accommodate the roundness of the shoulder. The sleeve is constructed and then 'set into' the bodice.

- *Bracelet/Three Quarter*: This sleeve reaches half way between the elbow and the wrist.

- *Padded Shoulder*: The shoulder is extended and the sleeve is heightened to accommodate a pad, to achieve a squared or rounded effect in the silhouette.
- *Raglan with Yoke*: Here the raglan is extended to accommodate the top part of the bodice, achieving a 'yoke' effect. There is a seam along the top edge of the sleeve and at the underarm.
- *Dropped Shoulder*: The shoulder is extended and shaped around the shoulder, rather like the capped sleeve. However there is more shaping and the extension is usually longer; also a sleeve is actually set into the armhole. The sleeve construction is modified by removing that part of the head that is now covered by the extension to the shoulder. The sleeve head then looks less curved.
- *Two Piece Tailored*: A shaped sleeve that has a seam down the front and the back to allow for shaping. There is no underarm seam; consequently the sleeve is constructed in two pieces.
- *Capped*: The sleeve is an insertion that just covers the shoulder point.
- *Cape*: A full, flared sleeve that is set into the armhole. The sleeve could be cut as a circle to give more flare at the hem.
- *Capped (Extended Shoulder)*: This is an extension of the shoulder just covering the shoulder point.
- *Saddle Raglan*: Here the seam for applying the sleeve to the bodice is shaped, it narrows along the shoulder line. This sleeve has a seam at the underarm and along the top edge of the arm to the wrist, including the shoulder.
- *Raglan with dart*: The raglan sleeve is derived from the set in sleeve but with the shoulder added to the sleeve head. It was named after Lord Raglan who led the Charge of the Light Brigade in the Crimean War and



Sleeves. 1. Set in 2. Bracelet/Three Quarter 3. Padded Shoulder 4. Raglan with Yoke 5. Dropped Shoulder 6. Two Piece Tailored 7. Capped 8. Cape 9. Capped (Extended Shoulder) 10. Saddle Raglan 11. Raglan with dart 12. Raglan with Seam 13. Man's Shirt 14. Long Bell 15. Frill 16. Bell 17. Pagoda 18. Leg of Mutton 19. Juliet 20. Bishop 21. Peasant 22. Lantern 23. Short Lantern 24. Drawstring Puffed 25. Square Armhole 26. Dolman/Maggyar 27. Petal/Lapped 28. Mamluke/Virago 29. Epaulet and Elbow Patch 30. Dolman with Gusset 31. Kimono

wore raglan-sleeved jackets. This sleeve is cut in one piece but has a dart at the shoulder to accommodate the roundness of the shoulder.

- *Raglan with Seam*: A normal raglan shaped sleeve with a seam along the top edge of the arm, and at the underarm.
- *Man's Shirt*: A set in sleeve with two pleats at the buttoned cuff and a placket. Normally seen on men's shirts.
- *Long Bell*: The upper part of the sleeve fits the arm, the lower part flares out into a full, bell shape.
- *Frill*: The upper part of the sleeve fits the arm, the lower part has a deep, gathered frill attached at about elbow length.
- *Bell*: Like the long bell sleeve, but much shorter, finishing around elbow length.
- *Pagoda*: An eighteenth century sleeve that is fitted on the upper arm, with tiered frills on the lower part of the arm to the wrist. It can be longer at the back of the wrist. There are usually three tiers giving the appearance of a Chinese pagoda.
- *Leg of Mutton*: A full, gathered sleeve head is set into the bodice and the long sleeve tapers to fit towards the wrist. Popular in the late nineteenth and early twentieth century, fashion frequently re-introduces the leg of mutton.
- *Juliet*: A two-part sleeve similar in effect to the leg of mutton. The top part of the sleeve is full and gathered while the lower part of the sleeve is fitted to the arm and is seamed to the top part above the elbow.
- *Bishop*: The reverse of the leg of mutton—the top part of the sleeve is fitted and then flares out towards the wrist where the sleeve is gathered onto a cuff. A popular 1960s style.

- *Peasant*: A full, short sleeve that is attached to a full bodice with a raglan effect seam. The garment is drawn in with elastic or a drawstring at the neck and at the sleeve hem. There are many variations to this theme.
- *Lantern*: A long set in sleeve constructed in two parts. The top part flares slightly from the sleeve head towards the wrist. The bottom part flares from a fitting wrist to meet the flare of the top. Both are seamed together a few inches above the wrist.
- *Short Lantern*: The same principle as the lantern, but a much shorter version ending just past the elbow.
- *Drawstring Puffed*: A full sleeve, short or long, with a drawstring to draw the sleeve to the desired size. The drawing up forms a small frill at the hem of the sleeve. Here the head is not gathered.
- *Draped*: A set in sleeve that is slashed open at the top part of the sleeve where fullness is added; the underarm seam remains the original length. The extra fullness created is drawn up with a drawstring or elastic to fix it into place, creating a 'draped' effect.
- *Square Armhole*: The armhole is shaped like a square with a right angle at the corner. The construction is as a set in sleeve.
- *Dolman/Magyar*: This style is named from the Magyars in Hungary and was worn by peasants there. The shoulder seam extends through the top of the sleeve and the underarm seam follows from the side of the bodice through to the wrist. There are no other seams and any shaping is made from these two.
- *Petal/Lapped*: This sleeve is cut without an underarm seam and is shaped and folded on the upper arm. It was very popular in the 1940s.
- *Mamaluke/Virago*: A long, full sleeve that is partitioned into five, full sections. The five sleeve parts are drawn and seamed together to fit around the arm.

- *Strapped/Banded*: The construction is that of a set in sleeve. From the neck point to the wrist is a narrow band of fabric giving a strapped effect.
- *Epaulet and Elbow Patch*: A strap or tab on the shoulder, normally seen on uniforms, to carry caps. Here there is also a patch on the elbow to protect the garment and prolong its life in heavy-duty use.
- *Dolman with Gusset*: This dolman sleeve has a gusset set under the arm to allow for more 'lift'.
- *Kimono*: A long sleeve that is a complete extension of the bodice to the wrist. The seam lines are along the top of the sleeve and at the underarm. A traditionally Japanese sleeve used on the garment with the same name.
- *Slashed Virago*: This sleeve has the upper part incorporating slashing, a popular sixteenth century decorative effect. The slashing reveals the shirt or tunic underneath, giving a contrast. Here there is extra contrast with the lower part of the sleeve being constructed in a different colour or fabric.
- *Tippet on Elbow*: Popular in the middle Ages. This was a pendant effect hanging from the elbow of a gown or tunic.
- *Melon/Balloon*: A very full, short set in sleeve, padded out to give the effect of a melon or balloon.
- *Batwing*: The same principle as the kimono. This sleeve narrows towards the wrist and has a curved underarm seam. This particular example would be made from a knitted fabric.
- *Cartwheel/Circle*: A short set in sleeve, designed to give an accordion effect.
- *Wing Ruffle*: Like the capped sleeve but here the fabric extension has fullness added, the fabric being gathered and set onto the bodice creating a ruffle effect.

- *Bag*: A long and very full sleeve that is gathered onto the cuff at the wrist. It has the effect of bagging on the lower part of the arm. This sleeve was popular in the fifteenth and sixteenth centuries.
- *Dalmatian/ Angel*: A sleeve that flares towards the wrist extending into a long point.
- *Buttoned Oversleeve*: A medieval sleeve that has a contrasting sleeve layered over the base sleeve. The top sleeve can be unbuttoned to reveal the contrast beneath.
- *Puffed*: A set in sleeve that has fullness at the sleeve head and base. It is set into the bodice and controlled at the base by a cuff or elasticsation to give a 'puffed' effect.
- *Double*: A puffed sleeve with two layers—the base is opaque and the top sleeve is transparent to reveal the sleeve underneath.
- *Mahoitres*: A fourteenth and fifteenth century sleeve popular in France. The sleeve is padded and bag shaped.
- *Hanging Sleeve*: This is a very long sleeve that is open down the front seam and hangs vertically. It is part of a medieval gown or doublet.
- *Trailing Sleeve*: This is similar to the hanging sleeve. The sleeve is constructed like a kimono and the opening for the hand is in the same position while the bottom part of the sleeve is stitched up.

## SKIRTS

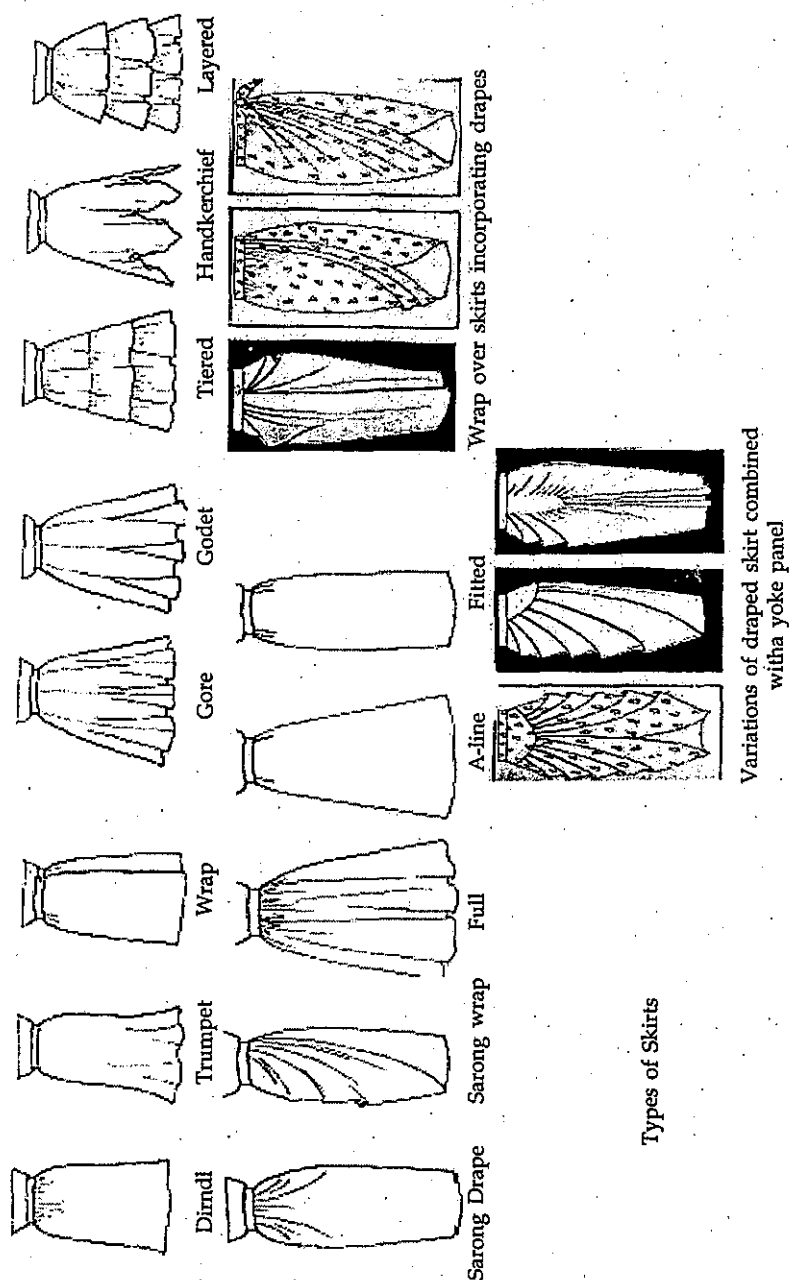
A skirt is a tube- or cone-shaped garment which hangs from the waist and covers all or part of the legs. A dress is a garment consisting of a skirt with an attached bodice or with a matching bodice giving the effect of a one-piece garment. In western culture, skirts and dresses are usually considered women's clothing. However, there are

exceptions. The kilt is considered a traditional men's garment in Scotland and some fashion designers, such as Jean-Paul Gaultier, have shown men's skirts. At its simplest, a skirt can be a draped garment made out of a single piece of material, but most skirts are fitted to the body at the waist and fuller below, with the fullness introduced by means of darts, gores, pleats, or panels. Modern skirts and dresses are usually made of light to mid-weight fabrics, such as denim, jersey, worsted, or poplin. Skirts and dresses of thin or clingy fabrics are worn with slips to make the material of the skirt drape better and for modesty.

The hemline of skirts and dresses can be as high as the upper thigh or as low as the ground, depending on the whims of fashion and the modesty or personal taste of the wearer. Some medieval upper-class women wore skirts over 3 metres in diameter at the bottom. At the other extreme, the miniskirts of the 1960s were minimal garments that may barely cover the underwear when seated.

### Basic Shapes

- Straight skirt, a tailored skirt hanging straight from the hips and fitted from the waist to the hips by means of darts or a yoke; may have a kick-pleat for ease of walking
- Full skirt, a skirt with fullness gathered into the waistband
- A-line skirt, a skirt with a slight flare, roughly in the shape of a capital letter A
- Pleated skirt, a skirt with fullness reduced to fit the waist by means of regular pleats or folds, which can be stitched flat to hip-level or free-hanging
- Circle skirt, a skirt cut in sections to make one or more circles with a hole for the waist, so the skirt is very full but hangs smoothly from the waist without darts, pleats, or gathers.



- A Divided Skirt looks like a skirt, but is divided into two legs, much like a loose-fitting pair of trousers or long shorts.

### Fads and Fashions

- Hobble skirt, a fashion of the early 20th century, with fullness at the hips narrowing to the ankles
- Poodle skirt, a circle or near-circle skirt with an applied poodle or other decoration
- Dirndl, a skirt made of a straight length of fabric gathered at the waist
- Prairie skirt, a flared skirt with one or more flounces or tiers
- Kilt-skirt, a wrap-around skirt with overlapping aprons in front and pleated around the back. Though traditionally designed as women's wear, it is fashioned to mimic somewhat closely the general appearance of a (man's) kilt, including the usage of a plaid pattern more or less closely resembling those of recognised tartan patterns of Scotland.
- Miniskirt, a thigh-length skirt, and micromini, an extremely short version
- Maxiskirt, a midcalf-length skirt
- Broomstick skirt, a skirt with many crumpled pleats formed by compressing and twisting the garment while wet
- Sarong, a square of fabric wrapped around the body and tied on one hip to make a skirt; worn as a skirt or as a cover-up over a bathing suit in tropical climates.
- Trouser skirt, a straight skirt with the part above the hips tailored like men's - trousers, with belt loops, pockets, and fly front
- Jean skirt, A trouser skirt made of denim designed like 5-pocket jeans

In Europe and America skirts and dresses can be worn by females of all ages as an alternative to pants. A skirt may be worn as part of a suit. Skirts or dresses are the garments of choice for many women in formal situations, such as weddings. In cold climates, girls and women may wear trousers, hosiery, or long underwear for warmth and/or modesty, with a skirt or dress on top to mark their femininity or other reasons. In traditional societies, such as in many countries in Africa, the Middle East and Central and South America, it is considered inappropriate for girls and women to wear trousers rather than a skirt or dress.

Potential disadvantages of skirts and dresses include them being either too long or cumbersome for the performance of some physical activities such as climbing ladders, and that their use can run contrary to the individual or wider public sense of modesty and decency, especially given their potential to intentionally or accidentally expose the wearer's underwear.

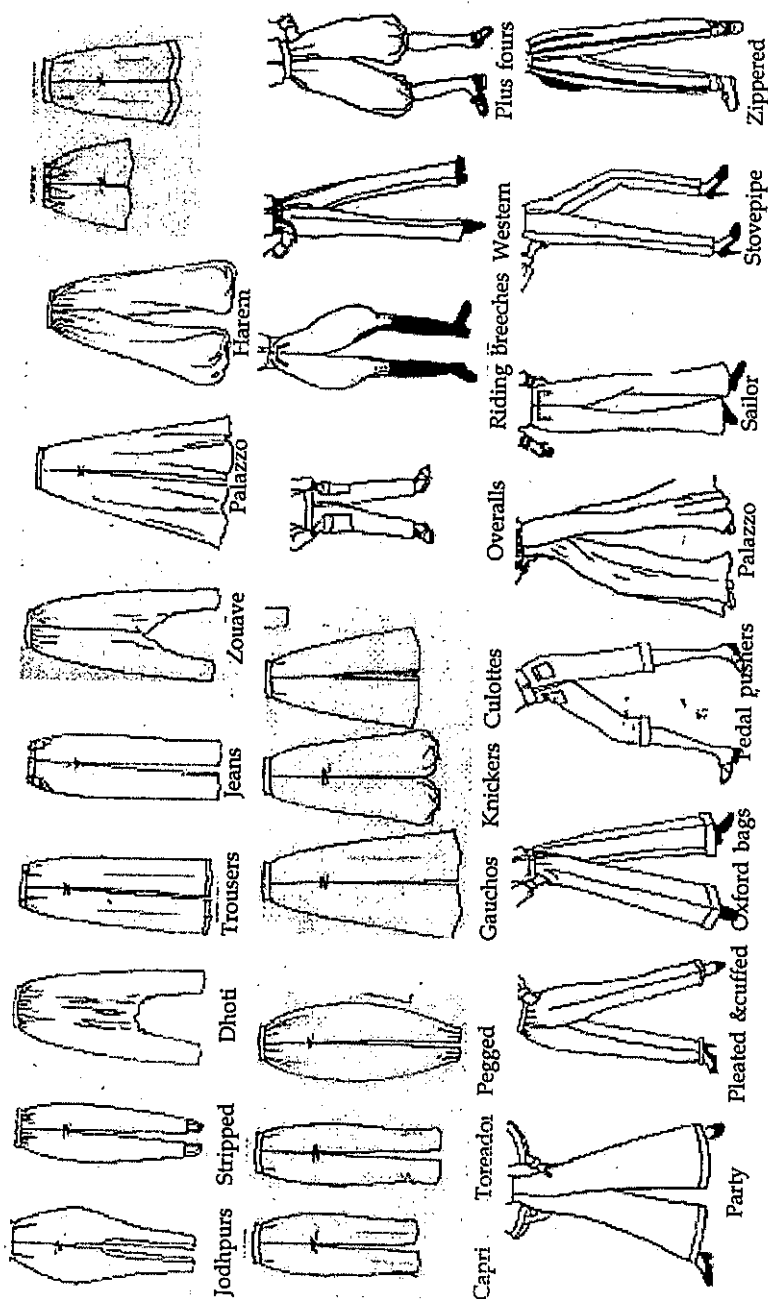
Dresses however can be cooler and less confining than many trouser styles, and they are still very popular for special occasions such as proms or weddings.

## PANTS

Pants are clothing for the body above the ankles and below the waist, of one sort or another. The term is an abbreviation of pantaloons, a plurale tantum. However, it has two distinct meanings which vary between regions:

### Basic Shapes

- *Boxer shorts*: very short thigh length pants.
- *Walking shorts (Bermudas)*: knee or mid thigh length pants.
- *Capri pants*: tight fitting three quarter length pants, with short slit on outside of leg.
- *Toreador pants*: tight fitting below the knee pants patterned after those worn by Spanish bullfighter.



Types of Pants

- *Stove pipe pants*: tight fitting pants with narrow legs, the same width from knees down.
- *Culottes*: floor length pajamas with wide legs, resembling a long dress.
- *Stirrup pants*: pants usually made in a narrow style having an extension under the instep, which can be worn inside, or under the shoe.
- *Trousers*: synonym for full-length pants.
- *Dhoti*: a very low crotched pant worn in Indian hills.
- *Pegged pants*: pants that are pleated at the waistband and narrow at the ankles.
- *Palazzo*: trousers flared at the hem.
- *Harm pants*: pants flared at the hem but gathered into a band at the hem, worn in ancient Arabia.

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## Accessory Designing

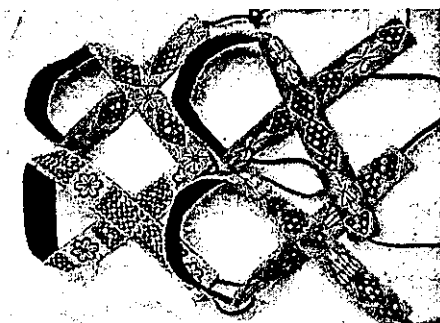
Fashion accessories are items apart from the garment itself, which compliment the whole outfit. Using them can add detail to an outfit when the garment's style is plain, or when the fabric from which the garment is has no interesting visual effects. Many accessories also have another more practical use beyond that of style.

With the use of different accessories and jewellery the savvy dresser can make his or her outfit seem completely different. Trends are continuously set by adding accessories to different outfits, for example, belts and Hair Accessories. Accessories can and have in the past changed an entire look. From handbags to shoes to earrings and beaded necklaces to 80s leg warmers, accessories catch the eye, and make most articles of clothing more appealing. There are also accessories such as handbags, hats and gloves that have more than one use. While they can be used to accent an outfit, handbags can also be useful carrying cases. Hats are created with large or small rims to protect the face from nature's harsh conditions. Sunglasses are also like hats used to protect the eyes from the harsh light. Shoes are used to cover the feet mostly in winter when they cannot withstand the extreme cold conditions. People in the desert for example wear sandals as the sand is much too hot to walk on for very long distance. Belts help to support the trousers on to the body preventing it from slipping down.

Fashion accessories are the finishing touch for any outfit. Worn with a basic dress, they add the detailing that makes a special ensemble. They can dress up a suit or add whimsy to casual sportswear. Making your own fashion accessories allows you to express your personal style, coordinating the colours and details so they work well with your garments.

## **BELTS**

A belt is a flexible band, typically made of leather or heavy cloth, and worn around the waist. It supports trousers or other articles of clothing, and it serves for style and decoration.



*Fashion Belts*

### **Suede Belts**

A belt with a creative insert is a one-of-a-kind accessory. The belt is made from medium-weight synthetic suede, such as Ultrasuede, and has a decorative insert. For a tailored look, use a simple pieced or quilted insert. For a more contemporary style, embellish the insert with punchneedle embroidery or with a fabric collage.

The belt has a finished width of 1 ½" (3.8 cm), making it comfortable to wear. Hook and loop tape fastens the belt and allows for fitting adjustments. When laying out

synthetic suede, determine the desired nap direction. Secure the layers by pushing fine pins vertically through the pattern and fabric into the cutting board. Or use pattern weights to hold the pattern in place. For easy assembly, the belt facing is cut slightly wider than the belt front; the edges are trimmed evenly after they are stitched together.

### Elasticised Belts

A belt with an elasticised back and a shaped front panel is comfortable and versatile. The elastic is concealed in a Shirred fabric casing. Make a belt to match a garment, or make one in a contrasting fabric. If desired, the panel can be embellished with couching or beading. Choose a lightweight to medium-weight fabric and a soft knitted elastic for an attractive, comfortable Shirred casing. The front panel is stiffened with a fusible interfacing intended for crafts.

### Rope Belts

Rope belts are comfortable to wear and simple to make. The wide selection of yarns that are available makes it easy to design a belt that matches or coordinates with a fabric. Use one type of yarn, or combine yarns for ropes of various colours and textures. For a basic rope belt, simply knot and fringe the ends. Depending on the length, the belt may be either single-wrapped or double-wrapped around the waist. A single-wrapped basic belt should be long enough to wrap around the waist, plus extra for tying a knot or loose bow. A double-wrapped basic belt should be twice the waist measurement, plus extra for tying.

For an embellished rope belt, add a shell with drilled holes, or button jewellery; glue D-rings to the jewellery item or design it with holes for inserting the rope. These belts, made from two lengths of rope, are double-wrapped and tied in the front next to the embellishment. Each of the two lengths should be long enough to wrap around the waist, plus extra for tying. Rope belts can be made

quickly and easily by twisting strands of yarn by hand. Decide how many strands you will need to achieve the desired diameter; the finished rope will be twice the diameter of the combined cut strands. The strands of yarn are cut two and one-half times the desired finished length of the rope. An easy -to-use specialised tool designed for making rope belts is also available.

## BAGS

A bag is a container that is usually used for storing or holding something. Bags are non-rigid, normally made of paper, cloth, thin plastic or some other flexible material. A bag may have one or two handles, or none at all. A bag may be closable by a zipper, etc., or simply by folding.



*Fashion Bags*

Sometimes a money bag or travel bag has a lock. Sachets are fabric bags that are filled with pot pourri and tied off with ribbons.

### Drawstring Evening Bags

Create an elegant pouch for special occasions. Twisted cording and a decorative bead add a finishing touch to the bag. Make your own custom cording to match the fabric, or use purchased decorative cording. Medium-weight fabrics that drape well, such as velvet and velveteen, work

well. Other suitable fabrics include brocade, satin, and some tapestries. Lightweight fabrics may also be used; to add body and support, underline a lightweight fabric with batiste, or fuse a lightweight knit interfacing to the fabric.

### **Clutch Purses**

A classic clutch that coordinates with a garment completes an outfit. The flap can be shaped and embellished in a number of ways, making the design possibilities for this purse unlimited. Make a variety of pins to change the look of one basic clutch. Or for an elegant one-of-a-kind look, embellish the flap with punchneedle embroidery, creating a plush, raised design on woven fabric. The lined purse is constructed with a zippered divider. A coat snap provides a simple closure. If desired, a shoulder strap can be attached.

Choose a medium-weight to heavyweight outer fabric; decorator fabrics have good body and are treated to repel soil. For added support, interface the outer and lining fabrics. Choose a crisp sew-in interfacing for the outer fabric and an all-purpose fusible interfacing for the lining. To embellish the flap of a purse with punchneedle embroidery, mark the flap section on the fabric and embroider the design before cutting out the flap. The punchneedle is done using special needles, such as Igolochkoy needles, available in several sizes to accommodate a variety of fabrics and threads. The needles have an adjustable depth gauge, allowing you to change the depth of the pile.

### **Tote Bags**

Tote bags are handy for many occasions. Make several in a variety of fabrics for both casual and career wear. For organisation, add pockets as desired to the front, back, and sides of this lined tote bag. A zippered pocket can be added to the lining.

### **Confetti Bags**

Bits of fabrics and trims, sandwiched between a foundation fabric and clear vinyl, make clutches and totes eye-catching. These zippered bags can be sewn in many sizes. Easy methods make confetti bags quick to construct; simple box corners and top-stitched handles are added to the tote bag. Create the confetti from a grouping of fabrics, trims, and threads in related colours.

For a variety of textures, include fabrics like velvets, satins, metallics, netting, and mesh. Use notions such as lace, rickrack, ribbon, and seam binding. Feathers, glitter, metallic paper, and other non-sewing items are also suitable; use any relatively flat item that can be stitched through. The confetti can be applied sparingly, to allow the foundation fabric to show through, or it can be applied in a dense layer. Use a 90/14 sewing machine needle. When stitching on the vinyl, use a long stitch length. Lubricate the bottom of the presser foot, if necessary, with a silicone lubricant.

### **JEWELLERY**

Jewellery is any piece of fine material used to adorn the human body. It has probably been around since the dawn of man; indeed, recently found 100,000 year-old Nassarius shells that were made into beads are thought to be the oldest known jewellery. Although in earlier times jewellery was created for more practical uses, such as wealth storage and pinning clothes together, in recent times it has been used almost exclusively for decoration. The first pieces of jewellery were made from natural materials, such as bone, animal teeth, shell, wood, and carved stone. Jewellery was often made for people of high importance to show their status and, in many cases, they were buried with it.

Jewellery is made out of almost every material known and has been made to adorn nearly every body part, from hairpins to toe rings and many more types of jewellery.

While high-quality and artistic pieces are made with gemstones and precious metals, less-costly costume jewellery is made from less-valuable materials and is mass-produced.

### **Polymer Clay Jewellery**

Make your own jewellery and buttons, using polymer clay such as Fimo or Sculpey. Polymer clay is a modelling compound that is available in a wide range of colours at craft stores and stores specialising in miniatures. Pieces of polymer clay adhere to each other with light pressure, making it easy to design unique jewellery items. It hardens to a smooth, matte finish when oven-baked, maintaining its prebaked size.

Jewellery pieces are designed using three basic forms of clay: the ball, the rod, and the sheet. Simple balls of clay can be used for beads, or they can be flattened and shaped to form discs for buttons or earrings. Rods of clay are sliced into discs or cut and rolled to form uniform balls. Sheets of clay can be rolled and cut out, cookie-style, for buttons, pins, or earrings. Rods and sheets can also be used to create designs. Marbleised clay is formed by twisting rods together. Patterned designs, such as a bull's-eye or pinwheel, are formed using rods and sheets. These patterned designs are called canes. Thin slices cut from canes are used to embellish base pieces of clay. Different brands of polymer clay vary in firmness. To make a firm clay easier to shape, soften it by cutting it into small pieces, warming them in your hands, and kneading the pieces together. Or mix a firm clay with a softer clay until you have a consistency that is easy to work with. A firm coloured clay can be mixed with a small amount of a soft white clay without sacrificing the brightness of the colour.

Work on a clean, smooth surface, such as laminated plastic, marble, or ceramic. Use a lint-free cloth and petroleum jelly to clean any residue from your hands or tools when changing colours. Bake finished pieces in a

107°C preheated oven on a baking sheet lined with cardboard. For most pieces, 15 to 20 minutes is a sufficient baking time; thicker pieces may require more time. Pieces may be rebaked at the same temperature if they feel soft after they have cooled. A sealer or floor wax can be applied to finished pieces of polymer clay jewellery for added sheen.

### **Making Jewellery and Buttons**

Polymer clay is easily made into necklaces, bracelets, earrings, pins, and buttons. Start with small, simple projects, and add inlays as embellishments. Experiment with shaping and twisting the pieces of clay to vary the shapes of the jewellery pieces. Attach findings to baked jewellery pieces, using craft glue. Polymer clay buttons should be hand washed. Do not place the buttons in a hot dryer.

- 1) Make uniform beads by marking marbled or solid-coloured clay rod into even increments.
- 2) Puncture beads on one side, using awl large enough to accommodate cording; remove awl, and insert again from opposite side. Bake.
- 3) String baked beads for bracelets and short necklaces on round cord elastic, and knot. Secure knot with craft glue. Conceal knot by sliding it into bead.
- 4) String baked beads for long necklaces on strong decorative cording, such as rattail or leather. Secure knot with craft glue.
- 5) Make bangle bracelets, covering cardboard or wooden bracelets with flattened bits of clay. Press clay in place evenly. Bake.

### **Button Jewellery**

Button jewellery is fast and easy to make. Jewellery findings can be attached to buttons to make earrings, pins, tie tacks, and stick pins. Use button pins to adorn

garments, embellish purses and belts, and hold scarves in place. Button jewellery can be made inexpensively using extra buttons from sewing projects. Or showcase unusual or antique buttons by turning them into one-of-a-kind jewellery pieces.

Old buttons offer unusual details and craftsmanship; combining one or two with new buttons can make jewellery pieces unique. Look for old buttons at flea markets, antique stores, and thrift shops.

When designing button jewellery, include buttons that vary in colour, size, shape, or texture, using special buttons as a focal point. Keep earrings and pins light in weight if you intend to use them on lightweight fabrics. Design the button jewellery so the finished piece has a flat base to which you can secure the jewellery findings.

Button jewellery can be assembled using hot glue or jewellery glue. Buttons can be glued together, using larger buttons to form the foundation. Or glue the buttons to a decorative base, such as a shell or a decorative belt buckle.

### **Fabric Collage Jewellery**

Fabric scraps, glued together for a collage effect, can be used to create a variety of pin and earring styles. The edges of the fabric are decoratively sealed with dimensional paint. Cut the fabric into different sizes and shapes, such as rectangles and triangles, and experiment with various arrangements to find the combination you like best. If you are using lightweight fabric, such as silk or lame, fuse a lightweight interfacing to the wrong side of the fabric before cutting the shapes.

### **SCARVES**

Scarves are versatile fashion accents that are easy to make. Depending on the fabric selection, they can accessorise any style, from casual to dressy.

The most important consideration in selecting fabric for a scarf is that it be drapable. Soft, silky fabrics drape well and tie easily. Challis is also suitable for scarves, but because it has a tendency to be bulky, it should be used for simple ties or wraps. Lightweight cottons are attractive for scarves with a casual look. For dressier scarves, use fabrics such as silk charmeuse, chiffons, and metallics.

## TIES

For a soft menswear look, wear a bias-cut reversible tie in a loose knot. Make a variety of ties to wear with your favourite shirts. To turn a tie into a one-of-a-kind accessory, embellish it with beads or couching, or with an applique. Or create a collage effect on the tie by adding patches of fabric and leather. If the tie will be embellished with couching or a collage, apply the embellishments to the interfaced tie fabric before you stitch it to the lining. This tie has rounded corners for a more feminine look. It is made using a simple stitch-and-turn method. Choose lightweight to Medium-weight fabrics and a soft woven interfacing. If you plan to embellish the tie, choose a firmer fabric, such as a linen or raw silk, for the embellished side.

## SUNGLASSES

Create your own designer frames by embellishing inexpensive sunglasses. Sunglasses can become a fun, flashy accessory or a finishing touch for a special ensemble. Use items such as buttons, beads, rhinestones, decorative threads, and strips of leather. A few items are usually all that is necessary. When applying embellishments with glue, make sure the base of the item rests flat on the surface of the frame, to ensure good adhesion. Use a jewellery glue intended for plastics and metals, working carefully to avoid excess glue on the frames. You may want to work with a tweezers and apply the glue using a toothpick.

**GLOVES**

Gloves can be fashionable accessories, not simply functional apparel. Whether you choose vivid, colourful gloves or opt for the ever-popular basic colours, a few embellishments can add style.

Decorative braid trims can be machine-stitched in place along the upper edge of the gloves. When attaching trims to knit gloves, make sure that the embellished gloves retain enough stretch to be pulled on and off easily. For leather gloves, machine-stitch the trim in place, using a leather needle, or secure it with a glue intended for leather.

Buttons add a whimsical look to a glove. Choose buttons that will lie flat. Stitch them in place, one at a time, without carrying threads between them, to prevent catching the threads when putting on the gloves. This also ensures the necessary give between buttons.

Small, charm-style buttons are stitched to stretch-knit gloves in a diagonal row.

Gold chains drape softly at the wrist like bracelets. The chains are simply hand-tacked in place to the inside of the glove at the upper edge.

Three large buttons are an elegant embellishment for a simple pair of stretch-knit gloves. Select buttons that will lie flat against the gloves.

Braid and gimp trims, machine-stitched in place at the upper edge, complement a pair of classic leather gloves. The small tassel, hand-stitched at the side of the glove, adds a final touch.

**SHOES**

Beaded appliques or decorative buttons can become shoe clips by simply stitching covered coat hooks to the underside of the appliques or buttons. Use your creativity to embellish shoes so they coordinate with special outfits. Elegant appliques can adorn the toe areas, or rhinestones

can add unexpected glitz at the heels. Many decorations are easy to add, but you may prefer to have some embellishments stitched or stapled in place by a shoe repair service.

For special occasions, use shoe clips as temporary shoe decorations. They can be made using the hook portion of large covered hooks and eyes, called coat hooks. When attaching the shoe clips to the shoes, squeeze the hooks as necessary to hold the clips in place. To temporarily secure lightweight items, such as sequined appliques, use double-stick tape.

When using glue to attach embellishments, select a glue that will dry clear and flexible, such as Tacky glue. Avoid gluing embellishments to an area where they are apt to be rubbed off, or to areas where the shoes will flex when worn. Paints can add a decorative flourish of colour to shoes. When painting shoes, it is important that the paint remain flexible on the shoe. For this reason, textile paints are recommended for fabric shoes; heat-set the paint with a hair dryer. Acrylic paints are recommended for leather shoes. You may want to test a small amount of the paint in an inconspicuous area, because paint may not adhere to some highly waxed leathers.

## **HATS**

Enhance any outfit by adding a hat that can be styled for dressy or casual wear. This easy-to-sew lined hat is made using circular pattern pieces for the top and brim and a rectangular piece for the crown. Fusible knit interfacing gives the hat an unstructured look and allows it to be shaped and embellished in several ways. Choose Medium-weight fabrics, such as damasks, decorator prints, broadcloths, and some denims. When using a supple fabric, interface all the outer fabric pieces. When using a firm or crisp fabric, you may want to interface only the brim pieces. Preshrink the interfacing by rinsing it gently by

hand in warm water; allow it to air dry. Or steam the interfacing, fusible side up, before applying it to the fabric.

Tie a scarf or trim around the crown as a hatband. Or add lace to the underside of the brim. Experiment with various ways to wear the hat, pinning the brim at the front or sides. Also try positioning the hat at several angles to find the most flattering style. Secure the brim with an artificial flower, a pin, or a button.

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## Fashion Stylisation

When you look good and know you look good, the resulting feel-good factor means that you project yourself with more confidence and authority. This conduct and behaviour will induce positive responses from those with whom you interact—family, friends, colleagues and strangers which simply adds to your feel good factor and starts the circle in motion once more. Positive responses also give you added confidence to make more changes to your appearance thus magnifying the circle's effects still further.

Appearance that is, height, weight, colouring, clothing, hairstyle, accessories and, in the case of women, makeup and jewellery—counts for 55 per cent of someone's opinion of us. So getting all these things right counts for more than half of the total impression we make. The next 38 per cent accounts for how we present ourselves body language, eye-contact, confidence and so on. So if you know your appearance is good, the chances are that your 38 per cent will be pretty impressive too. This leaves only 7 per cent for what you actually know or say in any given situation—frightening but true changing someone's image can be a fun spot for a show or magazine feature and can help private individuals improve their appearance and prospects. The statistics mentioned above have, however, been responsible for some amazing transformations of

public figures, which in turn have resulted in them acquiring, through a changed public response, enormous power on the world stage.

Our appearance is a mean of non-verbal communication a method of giving people information about ourselves which causes them to form opinions about us on a conscious level. By changing just small aspects of our appearance colours, accessories, make-up and so on we can learn how to change people's reaction to us even on a day-to-day basis so that we can achieve the desired response in any situation.

What is interesting about the results is that very small, subtle differences changes in clothing, colours, styles, jewellery and make-up—together with slightly different body language and attitude, can produce such wildly differing opinions of the same person. Alert colours, for example, make you more approach able than darker ones; structured clothing gives you more authority than non-structure red clothing; earrings give more 'presence' than necklaces; brushed or matt jewellery gives a softer impression than shiny pieces hands folded together are non-threatening; a hand on chin shows a, listening/caring personality; hands on hips shows aggression or confidence.

## **LIFESTYLE**

The everyday lives of men and women have changed enormously over recent years. There are now many more women in the workforce and an increasing number at extremely high levels. Men no longer feel it necessary to be the main breadwinner, and some choose to stay at home in the child-caring role. Working from home, for individuals or couples, is a rapidly increasing trend facilitated by the huge advances in communications technology. Health and fitness are becoming as important in people's lives as their job or status, and leisure/social activities are becoming more valued as lifestyles become more complicated.

In the past decades, you had one life at a time. You were a student, or a parent, or a highly paid office worker, or a lowly paid charity-worker, and you dressed according to your role in life. Today, you can be all those things at once a parent who also works full-time in an office, studies at evening classes and does charitable work at weekends. Life is definitely more interesting and varied today, but because we all juggle so many different roles we need a wardrobe, which takes us effortlessly from one situation to another. This does not mean we need a vast amount of clothes, but such a wardrobe needs knowledge and planning to provide a the essential. Most people, particularly women, have far too many clothes and yet still encounter the nothing to wear situation on an almost daily basis.

#### FACE SHAPE

Despite the fact that we see our naked faces several times a day in a mirror the majority of we haven't a clue whether their face is round, square turnip-shaped. For the mail-order makeovers which many company supplies women fill in a questionnaire and send photos of their face and body shapes. Some leave the face shape section empty others tick several conflicting boxes and many just write 'Help' in the margin. Looking at the discrepancies between the forms and the photos, that women find this task difficult for several reasons.

- Their hairstyle often obscures their true face shape
- Their glasses are totally wrong for their face and influence their decision
- Their features may conflict with their face shape and dominate the face

When trying to work out the shape of your face it is very important to scrape back all your hair into a ponytail, hair band or turban. Secondly, glasses should be abandoned to enable you to make an accurate assessment. Thirdly, pay

no attention at all to the shape of your nose, mouth, cheeks, eyes and so on. Sometimes a woman with very soft, or even chubby, features will see her face as 'round' because of the influence of her features, even though the face shape is actually a complete square or rectangle.

All face shapes can look attractive and stylish if they are complemented by the right hairstyle, glasses, jewellery and so on. An oval face can look good in lots of different styles, but an square/rectangle/heart-shaped face can actually look stunning if treated positively and with confidence. Never try to copy another person's sense of style: understand and accept exactly what you are and develop your unique look on that basis.

## HAIRSTYLE

There are plenty of hairstyle magazines now available in the newsagents to give you a good idea of the current trends in styles, cutting and colouring techniques. Film, music and media celebrities also have a big influence on the latest fads for certain styles. Don't make the mistake, however, of cutting a picture out of a magazine and taking it to your hairdresser in the hope that you can immediately acquire the latest trend or film star fad and automatically look fantastic. Remember that your face shape, and even the thickness and texture of your hair, play a big part in determining which styles will and will not suit you. By all means use magazines for inspiration, but bear the following guidelines in mind when snipping out pictures for your hairdresser.

## GLASSES

Choosing glasses is the next biggest headache for women particularly if they have to be worn all the time, which makes them a very important and integral part of image and appearance. There has been a huge shift in attitude towards wearing glasses over the past few years, and many people now own several pairs to reflect the varying roles

within their lifestyles different styles for day, leisure and evening. Indeed, glasses have become such a fashion accessory in London that they can be bought easily and cheaply with plain glass lenses to enable those with perfect eyesight to blend in with their older, arty colleagues who actually need to wear them.

Glasses are therefore no longer an embarrassing sign of old age but an easy way to give yourself a stamp of individuality and style in a place where no one can fail to see it—slap, bang. In the middle of your face. So if you've had the same old specs for years, or if you've been putting off buying a pair for fear of looking old or frumpy, get yourself down to one of the new spectacle shops without delay and have fun picking out some new, fashionable glasses. With the vast range of designer and own-label frames to choose from, you are bound to find at least a few flattering pairs which, believe it or not, can add to a stylish look rather than detract from it.

Knowing the shapes to look for is the first step in finding the perfect glasses but then ovals, squares, aviators and so on come in all different sizes and weights. Having glasses which are too big or too small for your face can destroy their desired effect, so the following tips will ensure that you are not under- or overwhelmed by your choice of specs.

The top of the frame should not sit above your eyebrows or you will be left with a look of constant surprise! On the eyebrow is good if the frames are quite thin or do not obliterate your eyebrow completely. Below the eyebrow is best if the frames are heavy. The sides of the frame should not extend too far beyond the sides of your face or come too far in towards your nose. Parallel to the sides of your face is best unless you deliberately want to widen your face. The bottom of the frame should never sit on your cheeks — this is the most common problem. Not only can it irritate your skin but it fattens your nose and leaves your eye 'floating' at the top of the

glasses — the 'goldfish in a bowl' syndrome! Ideally, your eye should be in the centre of the frame.

If you are petite or small-boned, lightweight plastic, delicate metals or frameless styles will look more complementary than thick, heavy varieties. Conversely, if you are large-boned, or fuller-figured, heavier styles will be more flattering; delicate, lightweight frames will conflict with your scale and make you appear bigger. Most people want their frames to be complementary to their face. Other people — particularly creative, extrovert or showbiz personalities will deliberately break the rules to make their glasses a dominant feature of their appearance.

## FIGURE DIRECTION

### **Straight Figure Direction**

Although your exterior silhouette may be described as 'straight', remember that you still have a bust, waist, bottom and so on, so this figure is by no means unfeminine. In fact, many of the world's fashion models have this particular silhouette as it is one of the easiest to dress for the catwalk — fuller hips and thighs always cause fitting problems, as it is easier to take clothes in than let them out.

The main aspect of this body is that it has a straight ribcage, which appears to go immediately down into the hipbones without a big indentation at the waistline. Models with this body shape often develop an exaggerated side-to-side sway when they walk down the catwalk, which gives the illusion of curved hips when caught in photographs. This figure is always flattered by garments with mostly straight lines and by sharply tailored, crisp fabrics and geometric patterns. If a woman with this shape is slim, she can tuck in tops and wear belts together with pencil skirts, slim-leg trousers and short, boxy jackets. Straight dresses and coats, over-shirts and ribbed sweaters are also flattering. As the ribcage can sometimes look wide

in comparison to the hips, garments with lots of waist emphasis—for instance belted jackets and skirted dresses—are best avoided as they emphasise the ribcage and draw attention away from the slim hips and thighs.

If this woman puts on weight it tends to go on first around the ribcage and then the bust area, and she moves towards the tapered direction. Some women with this straighter figure try to diet to achieve a 'curvy' figure with a slim waistline. If, however, you are born with a straight/wide ribcage this is virtually impossible, so a better alternative is to do exercises and work out to broaden the shoulders and develop a fuller bust.

### **Tapered Figure Direction**

This silhouette definitely has a curvy outline where you can see an indented waistline and rounded hips and thighs. However, the length of the ribcage and the resulting position of the bust have an enormous impact on how much curve this figure can take in its style of clothing. Just because you have a curvy silhouette with a visible waist does not mean that you can necessarily tuck in tops tightly, wear big belts or be flattered by very fitted coats or dresses. In other words, this figure is somewhere in between straight and curved, and needs a style of dress with gradual waist emphasis which is called Tapered.

The most flattering styles for the Tapered Figure Direction are garments such as fit'n'flare dresses, princess-line coats and semi-fitted jackets. Because of the small distance between the bust and the high hipline, wide belts should be avoided, but slim or low-slung belts can look good. Thin waistbands on skirts and trousers work well but lower-body garments with no waistband at all, which sit slightly lower on the hips, are definitely the most flattering. Tops and shirts can be tucked in, but always blouse out a little of the fabric over the lower garment to elongate the midriff.

If the tapered figure puts on weight it usually goes on to the hips and stomach first, causing them to become even closer to the buntline. It is important to invest in good, supportive bras if you have this figure the buntline needs to be kept as high as possible to maintain a flattering look.

### **Curved Figure Direction**

This silhouette also has a curvy outline, but the big difference between this and the tapered figure is that the curved figure has a much longer, usually slanted ribcage, which leads to a very obvious waistline and the appearance of a high buntline and lower hipline. Like the Straight Figure, this is a shape which is common amongst models and usually, because of the length of the ribcage, the owners of such curved figures are average height to tall—anything from 5ft4ins/163cm to over 6ft/ 189cm.

Because there appears to be so much space around the narrow waistline and long ribcage, the curved figure can take lots of waist emphasis—wide belts, peplums, full skirts and so on—without looking 'bundled up' in the middle. Straight, crisp, tailored styles are not very flattering to this figure, as they do not sit comfortably around the curves. Softer, drapey fabrics and contoured patterns work best. Because the waistline and midriff are the greatest asset of this figure, they are always best accentuated. Straighter styles which bypass the waist, particularly if they end around the hips/thighs, can make this body look fatter than it needs to.

### **Changing Direction**

If the curved figure puts on weight it tends to go on evenly all over, and the measurements of the bust, waist and hips may increase considerably. However, because of the long ribcage and lower hip bones the body has the space to take the extra weight and still remain curved. Some supermodels can put on a stone or two and not look much different! If weight is accumulated over the years the

Curved Figure may become Tapered as the bust and hips become closer, but will hardly ever become Fuller unless the weight gain is extreme.

### **Fuller Figure Direction**

Like the straight figure, this silhouette has quite a rectangular shape with little waist definition. The big difference between them, however, is that the Fuller Figure is larger in all areas, either because of weight gain or simply because its owner was born with a large frame or is what women often refer to as 'big boned'.

The female population is definitely becoming larger and, as long as fuller-figured women remain fit and their size poses no risk to their health, they should be able, by understanding their figure direction, to learn how to look and feel attractive and confident. Most high street and mail-order retailers have joke up to the fact that the fuller-figured woman accounts for nearly half of their women's wear sales, and are now producing fashionable ranges to cater for larger sizes. Buying larger sizes, however, does not guarantee a flattering look for the fuller figure if the chosen styles are completely wrong. Wide, full skirts, tightly tucked-in tops and belts are best avoided altogether.

If you are in the fuller figure direction at present because you are overweight, but you intend to lose weight by diet and exercise, your resulting silhouette on achieving your target is most likely to be either straight or tapered. Remember that the bone structure of your ribcage—its width and length—plays a big role in determining the ultimate figure you can attain.

### **ILLUSIONS WITH LINE, FABRIC, COLOUR AND SCALE**

To understand how to manipulate the viewer's idea of your shape or create illusions about certain areas of your body, you first need to have a basic understanding of how line, fabric, colour and scale can affect our perception of objects—including bodies.

## **Lines**

### ***Horizontal Lines***

Research has shown that the eye travels down an object from top to bottom. If there are no horizontal lines across the object it normally travels quite quickly down the object and then up to the top again. However, whenever the eye comes to a horizontal line it is arrested at that point, scans across the line and then continues on its journey. Although you are not aware of it, this is what happens when you look at someone else and what happens when that person looks at you. Consequently, you never want to put a horizontal line across a part of your body that you do not like or that you do not want to draw attention to.

Most people know that horizontal stripes on a T-shirt are widening—great for the small-busted but disastrous for larger ones! It is not just stripes, however, which we need to consider when thinking about horizontal lines. Pockets have strong horizontal lines and a skirt hemline is a very strong horizontal line. The bottoms of jackets, sweaters, T-shirts and so on will all draw attention to that part of your body just like a band going round a barrel. Some necklines also have a great 'horizontal hold' on the eye, so remember that those too will spotlight and broaden your neck.

### ***Vertical Lines***

Vertical lines are much more body friendly. They accelerate the eye on its journey up and down the body almost like giving it railway tracks to travel on. The result is that plenty of vertical lines in an outfit will make the wearer appear taller and slimmer and, if no horizontals are present in the wrong places, most figure problems will be bypassed quite easily. If you are short and/or overweight, stressing vertical lines in your outfit is very important. Only the very tall and/or very underweight will want to avoid too many verticals and stress the horizontal instead.

Strong vertical lines can be created by seams, a long scarf or a strong row of buttons down the front of a garment. Some skirts, trousers and jackets have vertical pockets set into side seams which can be much more flattering than horizontal or 'patch' pockets. An outfit with an abundance of vertical lines, such as a pinstripe trouser suit worn with a long straight scarf, is one of the most slimming and lengthening looks that can be achieved.

### *Diagonal Lines*

If horizontals arrest the eye and are widening; and verticals speed up the eye and are lengthening; diagonals come somewhere in between in their ability to have these effects on your body. Basically, the closer a diagonal line comes to a vertical, the more lengthening and slimming it is; the closer it comes to a horizontal, the more arresting and widening it is. You may think that diagonals do not occur very often in clothing, but again, if you think beyond the notion of a stripe in the fabric, diagonals are quite common.

A V-neck is made up of diagonals, and therefore the deeper it is the more slimming it becomes to a thick neck. Halter-necks put diagonal lines across the shoulders and are therefore good at diminishing too broad shoulders but disastrous for narrow or sloping ones. Wrap-over-style swimsuits take the eye across and away from a large bust; asymmetric hemlines can elongate short legs; and a dipped yoke or pockets set at an angle on the back of jeans can help reduce a large bottom.

Sometimes an array of diagonal lines can be used together in a pattern to trick the eye into perceiving one part of the body as being a lot smaller than another. A swimsuit or leotard which has diagonal lines converging into a point on the waistline will make the waist look smaller than it really is in fact, this style can create the illusion of a waistline where none exists and is very flattering for the straight or fuller figure. Occasionally,

diagonal lines can occur by accident with undesired results. A pleated skirt, for example, whose pleats do not hang straight down in vertical lines but fan out over large hips produces diverging diagonal lines which are extremely widening and fattening, so beware.

### **Fabric**

Choice of fabric also affects focal points on the body and apparent size of various parts. As with horizontal lines, the eye is arrested by and zooms in on the bright aspects of an outfit. Because shiny fabrics reflect light and appear 'bright', they draw attention to themselves. The reflection of the light also makes the part of the body they cover appear larger.

A white, silky blouse will therefore draw attention to the bust area and make it appear larger; satin trousers will enlarge the bottoms they encase; a totally shiny dress or suit will add inches to the entire body; and glossy tights/stockings can turn ample calves into two plump pork sausages! This is vital information for women who are planning a wedding, as shiny fabrics are often used in profusion. Make sure that the bride and bridesmaids aren't blown up out of all proportion by yards of shiny fabric, which can look even worse in flash photography.

By now you've probably worked out that matt fabrics have the opposite effect—they don't draw the eye and can reduce the perceived size of the parts they cover. Matt fabrics absorb the light and are therefore more body-friendly for those who want to look a little slimmer. Returning to our examples above, a cotton blouse, gabardine trousers, jersey dress and matt tights stockings are better options if your figure is less than perfect in any of those areas.

Finally, on the topic of the eye being drawn to 'sheen and shine', jewellery can also be used to draw attention to or from particular areas. A brooch placed high on the shoulder draws attention away from a too large bust; a

necklace hanging over a beautiful bustline draws attention to it. Bangles draw attention to elegant wrists and dangly earrings can highlight a long, slim neck. Remember that belt buckles too can be shiny objects if you don't want too much attention focused on your waistline, fabric-covered buckles can be more flattering.

### **Colour**

Dark colours act rather like matt fabrics in that they absorb the light and make areas clothed in them appear smaller. Yes, that is why black is nearly always slimming—it is not a myth! If, however, the black garment is made up from a shiny fabric such as black satin it will no longer be slimming because the power of the 'shine' overrides the power of the colour. So if you want to reduce certain areas of your body, deep-coloured matt fabrics will always be best.

Everyone can wear dark skirts, trousers, jackets and coats if they are teamed with a 'personal' colour near the face. Lighter colours have more reflective qualities and therefore make areas appear larger. If you have to choose between the same dress in lemon or navy and are nervously wondering 'Will my bum look big in this?' opt for the navy one every time. If the colour is too deep next to your face simply add a lighter scarf, jacket or jewellery for a flattering effect. Buying what is right for your body is far more important than sticking to a particular swatch of colours.

### **Scale**

The final bit of trickery that our eyes can play on our brain is in connection with differing sizes and scales of objects. What we have to understand is that nothing is viewed in isolation but always in relation to what is surrounding it. Look at the diagram opposite and assess which central blob is the bigger—the one on the top or at the bottom. In fact both are the same size. The one at the top appears larger

because it is surrounded by small objects; the one below appears smaller because it is surrounded by large objects. So, how does this affect a woman's appearance? Quite simply, if you are a Fuller-Figured woman, very small details such as patterns, jewellery, bags or hats will actually make you look larger. A petite or small-boned woman who opts for very large accessories and patterns can easily be swamped and overpowered and ultimately look smaller than she really is.

However, many larger women choose to surround themselves with small things. They do so for two reasons: not to draw attention to themselves, and in an attempt to look smaller. What they achieve is the exact opposite. A large woman needs larger-scale accessories and patterns, firstly for them to be flattering to her size and secondly to project an aura of confidence about who and what she is. Similarly a petite businesswoman will often try to make herself look bigger with a large briefcase or brooch, but small to average-size pieces are in fact needed to increase her degree of professionalism.

Armed with your knowledge of line, fabric, colour and scale, you may be able to begin working out how to highlight or diminish your good and not-so-good bits and pieces. But first study the list below and tick the boxes of the particular proportions, which apply to your figure. You don't need to put a tick against all of the body areas listed. For example, if your neck is neither long nor short, or if your bust is neither small nor very large, just ignore these boxes and concentrate on the areas, which you want to accentuate or disguise.

The proportions listed in the left column are generally considered desirable by most women in the Western world; the majority of Western fashion models have all these attributes, so most women like to accentuate those points. The proportions listed in the right column are generally considered more of a problem by Western women, who feel they need to disguise or diminish those areas. In other

cultures, however, features such as big hips, stomach and bottom are regarded as attractive—you can therefore decide for yourself which proportions you want to highlight or reduce, depending on how you feel about your body within your own culture.

## COLOUR DIRECTIONS

Colour directions, is extremely flexible as it can be applied to the new colours each season. It can also help you to wear the colours you like or to project a different look for different occasions because it explains the effect that different colours can have when teamed with your own colouring—for example, you don't always have to look 'harmonious' if you don't want to! Finally, it can help you 'change direction' if you are bored with your look—you can change your hair colour to alter your colour direction if you don't want to remain as nature intended. Before you discover your colour direction, it is useful to understand a little about colour itself so that you can see how the system has been developed and how its origins are based in fact rather than fantasy.

Every colour has three main characteristics: depth, clarity and undertone. Once you understand the meaning of these terms and how they apply to your own colouring, finding your most harmonious colours each season becomes easy—no swatch wallet is needed.

### Depth

This is how deep or light a colour is. For example, charcoal grey is deep and dove grey is light. They are simply different intensities of the same colour. It is important to remember that 'deep' does not mean 'dark'; 'deep' means 'strong' and 'intense'. Fuchsia pink is a deep colour, while baby pink is a light intensity of the same colour. In fact, light colours are simply a diluted version of deeper colours a small drop of fuchsia pink paint stirred into a glass of water would result in the baby pink shade.

### **Undertone**

This is how cool or warm a colour is. For example, blood red is a cool red and tomato red is a warm red. What makes a colour warm or cool is varying amounts of yellow or blue within its composition. All colours contain both yellow and blue, but in differing degrees which are not always visible to the human eye.

Colours with a lot of yellow, such as orange, tan and peach, are warm colours; colours with a lot of blue, such as black, fuchsia and purple, are cool colours. To make a colour warmer you would add yellow; to make it cooler you would add blue. If you cannot tell whether a colour is warm or cool it probably has equal amounts of yellow and blue in its composition. These are the in-between shades which are often called 'true' colours true red, true green, etc.

### **Clarity**

This is how bright or muted a colour is. For example, lime green is bright and sage green is muted. A bright colour is clear and vivid and reaches the eye very quickly because of its sharpness. A muted colour is soft and subtle and reaches the eye quite slowly because of its greyish, cloudy composition. Returning to our paint analogy, to turn a bright paint into a muted paint, you would add quantities of grey to lessen the clear, sharp, vivid qualities.

### **Personal Characteristics**

Having some understanding of colour enables you to apply those characteristics and basic terminology to yourself, because your skin, hair and eyes are all made up of pigments and colours. Melanin is a brown pigment found in skin, hair and eyes. Carotene is a yellowy-orange pigment also found in skin, hair and eyes. Haemoglobin is a bluey-red pigment in blood and is sometimes visible through the skin. In the future you may want to change again or even revert to your natural self, but that's

completely up to you. Also, the colour direction that you are now is not necessarily how you will stay forever. As we get older our skin, hair and eyes all fade as pigment is lost, so our colouring can change naturally from one colour direction to another.

To put your colour directions in order of importance draw up a chart like the one opposite, putting crosses where you feel your answers to the questions fall. Use pencil at first as you may change your mind after some thought. If you could not decide between your Primary and secondary colour directions or if you answered 'don't know' in all the categories, look at the pictures and descriptions on the following pages to find the colouring which most closely resembles your own. You will then be able to discover your most harmonious clothing colours for wearing next to your face, harmonious make-up shades and even colours for spectacle frames and jewellery to complete the picture.

Any woman can wear a black suit, but a Light woman might want to team it with an ivory blouse, for instance a deep woman a red blouse and a Warm woman a peach blouse. You can, if you choose, wear your harmonious colours from head to toe and the look will be great if the style is also right for you. Remember, however, that where colour is concerned you have the freedom to follow your own tastes or fashion trends on the major part of your body, if you so wish.

### **Deep Direction**

Typical examples are Cher, Paloma Picasso and Oprah Winfrey. This colour pattern is the most common throughout the world, particularly in hot climates, and is often described as strong, powerful or intense. Most dark-skinned women will have deep as their primary colour direction unless they have coloured their hair blonde or red, wear coloured contact lenses or have hair, which has gone grey.

**Light Direction**

Typical examples are Kylie Minogue, Goldie Hawn and Princess Diana. This colour pattern is very common in Western countries, particularly England and Scandinavia, and is often described as fair, delicate or soft. It is quite a natural colour pattern amongst children, but the majority of adult women who are ash or golden blonde have usually resorted to hair colourants as their hair will by then have darkened.

**Bright Direction**

Typical examples are Liz Hurley, Joan Collins and Princess Caroline of Monaco. This colour pattern is characterised by a contrast between hair, skin and eyes usually dark hair with light or bright eyes. It is often also described as sharp, vivid or clear. As a natural colour pattern it is most commonly found in Celtic countries, particularly Ireland whose inhabitants are famous for their 'twinkling eyes' which stand out from their brown hair and pale skin.

**Muted Direction**

Typical examples are Cindy Crawford, Julia Carling and Jemima Khan. This colour pattern is quite unusual in adults and does not occur very frequently in natural colour patterns. Women with blonde hair and darker eyes have usually lightened their hair with a colourant. The effect is often described as soft, rich and subtle. Blonde hair with such a rich eye colour does not provide a contrast, but gives a more mellow, blended look.

**Warm Direction**

Typical examples are the Duchess of York, Rula Lenska and Nicole Kidman. This golden, burnished, fiery colour pattern is often associated in its natural state with northern countries, particularly Scotland, and is characterised by an abundance of the pigment carotene in the hair and eyes and often on the skin as freckles. You may, however, have

dyed your hair to a shade of red, which, if it is a dominant aspect of your appearance, will make warm your primary colour direction.

### **Muted Direction**

Typical examples are Cindy Crawford, Julia Carling and Jemima Khan. This colour pattern is quite unusual in adults and does not occur very frequently in natural colour patterns. Women with blonde hair and darker eyes have usually lightened their hair with a colourant. The effect is often described as soft, rich and subtle. Blonde hair with such a rich eye colour does not provide a contrast, but gives a more mellow, blended look.

### **Cool Direction**

Typical examples are Queen Elizabeth II, Germaine Greer and Barbara Bush. This silvery, icy, ashy colour pattern is often associated with older women whose hair has gone grey or white not yellow grey. Some women, however, can go grey at quite a young age or choose to go grey with hair colourants. Some hair colours, such as ash brown or brown hair going grey, have so little warmth that they too can also fall within the cool direction. This colour direction comprises only a small percentage of the female population, as most women who go grey colour their hair and therefore change their colour direction.

### **Black and Asian Colour Directions**

Women of African, Afro-Caribbean or Asian background will nearly always have deep as their primary colour direction because of their dark hair and eyes and, often, darker skin tone. Deep, strong intense colours for make-up and clothing near the face will always be more flattering. Knowing your secondary colour direction is, however, extremely important if you are a black or Asian woman, so that you can fine-tune and personalise your look in an individual way.

### **Deep and Warm**

This colouring is characterised by an overall 'golden glow' which emanates from the hair colour, eyeshade and skin tone. The hair can be a rich golden brown or subtle red highlights can be visible in darker hair. If the hair colour is natural, the eyes will usually be a hazel or golden brown colour and the skin may sometimes have freckles.

### **Deep and Cool**

This colouring is characterised by an overall 'bluey or ashy' look, which emanates from the hair colour, eyeshade and skin tone. The hair can be an ash black, blue-black or even be beginning to go grey. The skin can also have an ashy or bluey look or even a 'rosy' tone to the brown. The eyes can be very dark almost black or may have a grayish tinge to the brown shade. Usually, there is very little evidence of warm or golden tones.

### **MAKE-UP**

Make-up today should not be a mask. As with figure proportions, you need to highlight the good aspects of your face and bring out your best features and individuality. Problem areas can be played down with clever tricks of shade and light, but never attempt to alter your 'true self' dramatically as the results can be disastrous.

### **Colour Cosmetics**

Now that you have prepared a flawless canvas, you can apply the colour cosmetics to enliven your features. It is the best stages especially eyes and cheeks which women can find most difficult, but follow these step by step guidelines and remember that practice makes perfect. No one has ever attained perfect result at their first attempt.

### **Eyebrows**

The eyebrows frame the eyes and are one of the most expressive features of the face. Brows should be brushed

and groomed first, after which shape and colour can be added with a pencil or powder. First use tweezers to remove any hairs that lie obviously outside the brow's natural shape. For the best shape, your brows should begin directly over the tear duct at the inner corner of the eye and rise in a gentle curve along the brow bone. The highest point in the arch should be just about even with the outer edge of the eye's iris. Tapering down and ending at the brow, line up a pencil perpendicular to the bridge of your nose and then at an angle across the outer edge of the eye.

### **Cosmetic Tips**

As we get older our colouring fades as melanin and carotene levels reduce and pigments are thus lost from the hair, eyes and skin. The blood supply to the skin lessens, so the 'rosy' look of youth is also lost, and skin-cell renewal reduces leaving the skin thicker and more 'opaque'. Cosmetics can be very useful, therefore, to help older women put some colour back into their appearance this automatically gives a younger, healthier look. This is particularly important if your colour direction is cool, the colour pattern containing the least pigment. Here are some flattering make-up tips for the mature woman at any time:

- Use congealer pencil to cover dark circles and blemishes such as brown pigmentation or liver spots.
- Use liquid foundation for light coverage and cream foundation for extra moisturising coverage. Avoid compact foundation. Light-reflecting foundation is very flattering, as it reduces the effect of lines.
- Because skin tone and colour fade with age, be sure to check your foundation colour. It may need to change to give a boost to your skin tone. Review your foundation colour every three or four years.
- Use powder sparingly! If you apply it too heavily, lines and wrinkles will be accentuated. Keep it to nose, cheeks and chin only.

- Shape the brows and fill in any sparse areas with eye pencil or powder. Avoid using black, because it can be too harsh.
- Use matt eye shadow because frosted tends to emphasise creepiness on drier, ageing skin.
- Don't apply colours under the lower lashes because it can appear darker and give your skin a tired, washed-out look.
- Use soft eye pencil to line the top lashes and blend it in. Avoid very dark colours.
- Apply two light coats of mascara. Choose brown or grey because black can be too harsh, unless your colouring is deep.
- As we age the skin sags, resulting in loss of bone definition. This condition can be helped by the correct application of blusher to give a lift to the cheeks and jawline.
- To prevent lipstick from feathering or bleeding, apply foundation and powder to your lips first. Remember to lower the position of your blusher slightly if you wear glasses and balance the strength of your lipstick to the strength of your frame.

## DRESSING

Select your body type to find out how to dress.

### Plump

Go for dark colours. You don't have to agonise too much about avoiding A-line cuts or silhouettes if you take care the cut is neat and the colour is not too bright or pale—expands your girth. If you must wear light shades than choose antiques dirty blue, and not the sky blue.

### Medium

Beiges and fawns. Antique gold. These colours also suit

all skin tones so the ideal Indian colours. Anything goes with this body shape be it the very in georgette saree or the out-of-fashion satin.

### **Thin**

Any colour. And that means you can wear all the colours – the entire spectrum of VIBGYOR and the antiques – pinks, fawns, blues, golds.

### **Comfort**

Comfort is a great thing but don't hide your assets in loose, drab and banal cuts all the time. If so, use bright colours and pretty prints to bring out your personality. And if you can't resist wearing the same old kurta every week because it has a soft feel to it then spike it up with a different dupatta, a fancy bag, or some bold makeup.

### **Style**

Your wardrobe has items of clothing appropriate for any and every occasion. You dress up creatively, instinctively and originally. However you should be able to carry it off.

## **FASHION MISTAKES**

You will be considered beautiful not only by your features but by the way you dresses, by the way you present yourself, by your confidence and your style. If you have mastered all these then you have a very lethal combination and you will be able to rule the world by your beauty and charm. However we often make certain fashion mistakes which though according to us doesn't matter but infect these mistakes affect your sense of fashion and style immensely.

### **Choosing Wrong Colours**

This is one of the biggest fashion mistakes that you can commit. Just remember one thing that all colours don't suit

your skin tone. The colour that looks great on your colleague or the actress you saw in the soap might not look great on you. Infact it might look the contrary. Therefore you have to learn to recognise which colour suits you and also the profession to which you are associated. Experiment with different colours and stick with the palettes that look best on you, regardless of what's hot and happening. Don't waste your money on clothes that make you look pale and ugly.

### **Improper Makeup**

Proper makeup is an important aspect of fashion. For every occasion you require an appropriate makeup i.e., light for day, heavier for evening, sheer for sports etc. You wear different clothes for different activities in you life; similarly your makeup should change as per occasion.

### **Rundown Shoes**

You will look complete only if you are dressed appropriately from top to bottom. Therefore even your shoes should be appropriate for the occasion and should go with your dress. Don't wear shabby, unpolished and rundown shoes. Polish them regularly. Use a felt tip marker on scuffs, and put a piece of soft carpet under your feet when you drive. And most importantly, invest in a good pair if you're going to wear them every day. Spend on your shoes that will give you comfort and will look great on you.

### **Wearing Small Size Dresses**

If it doesn't fit, don't wear it. Squeezing into a size that is too tight for you may feed your vanity, but it will make you appear overfed to everyone else. If the dress you are wearing is not comfortable and you cant sit or walk properly then it is not going to make you feel beautiful at all and you are definitely not going to look your best. Then why put yourself through that kind of torture? Find clothes that fit or have them tailored to fit and look your best.

**Improper Use of Slips**

Another fashion mistake will be letting your slip show from under your skirt. Don't use the same slip for all dresses coz it might not be proper for all. Buy slips in several lengths and replace them once the elastic wears. For the most discreet linings, buy slips in the colours you wear most often, like black, navy, beige, and white.

**Bad Smelling**

There are some people who smell terrible despite using good perfumes. Drink plenty of water and eat lots of fresh fruits and green salads. Buy deodorant that works with your body. You may have to try a few to find the best one for you, and you may need to change every now and again if your chemistry changes, like after having a baby, starting new medication, going through menopause, or the like.

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## Modern Trends in Fashion Technology

Fashion is a style that is popular in the present or a set of trends that have been accepted by a wide audience. But fashion itself is far from simple. Fashion is a complex phenomenon from psychological, sociological, cultural, or commercial points of view.

Defining fashion means dealing with dualities because clothing simultaneously conceals and reveals the body and the self. Clothing choices express personal style and individuality but also serve to manipulate the public image to fit situations and the expectations of others. The engine of fashion is sparked by the dual goals of imitation and differentiation, of fitting in and standing out, of following the leader and being distinctive.

Human ambivalence-conflicting and contradictory yearnings finds an outlet in a capitalist marketplace as "appearance-modifying" goods. Through a process of negotiation between elements of the fashion industry and between the fashion industry and the consumer, ambiguous styles become accepted as fashionable.

Defining fashion means operating within the domain of popular culture. Unlike high culture, popular culture often seems trivial and transient. Popular culture invites skepticism because it sometimes seems extreme and

frivolous. For the same reasons, it is difficult to take fashion seriously. Fashion change is never entirely arbitrary, but ugly things are sometimes in vogue. When a journalist writes about "fashion follies" and lists fashion's failed trial balloons, the whole enterprise takes on a slightly silly demeanour.

When a fashion commentator likens himself to the kid in the story "The Emperor's New Clothes" because he wants to stand up in fashion shows and yell "The emperor is naked!" then even industry insiders are questioning fashion's direction. When the editor of a leading fashion magazine can find no defining look for the decade of the 1990s except for a "pervasive minimalism," then the news is out-the decade before the millennium was a tough one for fashion.

Does that mean that fashion is disappearing as a cultural phenomenon? Is it a signal, not just of the end of fashion, but of fashion forecasting? Not at all! Most people invest their time, interest, and dollars in popular culture. The study of popular culture-the content and people's relationship to that content-has attracted the attention of scientists and scholars. Some very serious anthropologists, psychologists, and sociologists have written about fashion and theorised about its mechanisms of change.

Defining fashion as change captures the charm of novelty, the responsiveness to the spirit of the times, and the pull of historical continuity. Fashion is not a phenomenon restricted to apparel. It is present in the design of automobiles and architecture, the shifting popularity of cuisine, the development of technology, and the buzzwords of business management strategies. One-day people are driving metal boxes, the next, rounded metal eggs. One day few people are eating oatmeal; the next day almost everyone is because it has been declared a health food. Once no one decorated using the colours and crafts of the Southwest, then everyone did. Every few years a new management strategy is touted as a

breakthrough only to be replaced by another one a few years later. The World Wide Web was once an information network for scientists, now it reaches into offices and homes everywhere. Understanding fashion helps explain how do these transformations happen.

Designers, marketers, and the press transfer the meaning to a consumer good and increase its visibility. The consumer fetches the meaning out of the marketplace in the form of goods and constructs his or her own personal world. Not all goods catch the attention of or find favour with consumers. Some meanings are rejected initially and are then taken up later. Some meanings are recycled over and over. Obsolescence is designed into the process. Fashion in its many guises plays a constant role in the evolving cultural environment.

More than an abstract concept, fashion is an economic entity. Planned obsolescence powers the economic engine of fashion. Wearing clothes until they wear out or wearing the second-hand clothes of more fickle buyers are acceptable strategies for dressing, but they omit the pleasure in new clothes and the novelty in new looks. Creating fashion goods requires the ability to mix aesthetic concerns and market mindfulness-that is, mass-produced fashion is the product of negotiation within and between the sub worlds that make up the fashion industry.

Where apparel is concerned, men and women have not been playing on the same field. Beginning in the 19th century, men's clothing has exhibited greater uniformity and a lack of decorative elements. Men rejected the social distinctiveness of dress in favour of "occupational" clothing with similarity in cut, proportion, and design. Women, in a relatively weaker social position than men, used fashion as a field where they could vent their "individual prominence" and "personal conspicuousness". By the 1930s, fashion commentators were seeing a change-the breakdown of social hierarchies and the "everincreasing socialisation of women" .

## TREND MOVEMENT IN FASHION

A study of fashion change shows that new looks rarely come out of the blue. Instead, fashion is a logical evolution from a precursor, the next step in building on a successful trial balloon, a response to social change, or an expression of cultural drift. Tracking trends is very much like watching weather patterns. A warm and a cool air mass collide, and the results may be a tornado and golf ball-size hail or just rain and gusty winds.

Lawrence Samuel, co-founder of the marketing consulting firm Icon culture, Inc., spelled out the predictable and unpredictable stages in the evolution of a trend. The three stages are:

1. *Fringe*—a stage when an innovation arises and the trendiest consumers and entrepreneurial firms begin to participate.
2. *Trendy*—a stage when awareness of the trend grows because early adopters join the innovators to increase the visibility of the trend and the most fashion-forward brands and retailers test the concept.
3. *Mainstream*—a stage when more conservative consumers join in, visibility continues to increase, and corporations and brands capitalise on the growing demand.

Tracking trend movement may require only a few points to plot a line and detect a direction. The trend may be moving up from the street through levels of consumers from the most avantgarde to the more mainstream or down from an extravagant one-of-a-kind couture creation worn by a celebrity to a knockoff at the local mall. Horizontal movement occurs when more and more people progressively adopt a style as that innovation diffuses through the market segments.

The cyclical nature of fashion can be seen in the recycling of fashion ideas—such as the return of khaki and World War II movies late in the 1990s. Fueled partly by

nostalgia among generations old enough to remember and partly by the younger generation's desire to experience the music and fashions of another era, pop culture seems to circle back, picking up speed each time. Looking for these movements, placing observations within a theoretical framework, and visualising the shape and direction of the change enables forecasters to predict fashion direction and the speed of change.

The transmission of trends has been likened to the spread of a virus. Malcolm Gladwell, a writer for the *New Yorker*, used this metaphor when he spoke to the International Design Conference about creating design trends that are "contagious" -spreading quickly through the consumer population to reach "epidemic" proportions. He urged manufacturers to aim for "sticky" looks with flu-like staying power because consumers do not want looks that quickly disappear.

Gladwell's comments parallel the concept of memes-selfreplicating ideas or bits of behaviour that move through time and space without continuing support from their original source. Memes can be advertising slogans, catchy bits of dialogue from a TV show, or any concept that establishes its own repetition by appearing in many formats. The more copies of the meme, the more likely that it will replicate through time and space. A product, a look, or a brand can become a meme. The characteristics of a meme are very similar to a trend: novelty and vividness. A meme has one additional important characteristic: it must catch on in a way that favours the leaping of the meme from format to format at a rapid speed. Trends must be visible to possible adopters in order to spread.

Trends spread through word-of-mouth among personal networks when one person visually or verbally recommends a new fashion to friends and acquaintances. Buzz-defined as excitement about something new-is created when trends pass through media networks, moving from one format to another.

Receiving information on a trend in this way gives the consumer a feeling of being "in the know" because of insider information from the media elite. Buzz lifts whatever people in the media are currently talking about to a new level of awareness. The Internet speeds up the transmission of buzz by preempting traditional media-that is, by breaking news about celebrities, new products, new shopping venues, upcoming movies, and other such happenings before the items can appear in traditional channels.

Public relations (PR) executives try to create buzz by planting information on the Internet and other "under the radar" kinds of campaigns. As consumers rely more and more on nontraditional channels for information, hype-the artificially generated PR form of buzz-becomes less influential and buzz more influential for trendsetters and early adopters.

Buzz certainly exists on the Internet as trends are transmitted globally in an instant through Web sites and e-mail. Building on that concept is a new form of marketing aimed at getting customers to try a software product, share it with the people they know, and thereby propagate the product on behalf of the company that created it. Called viral marketing, the process has been called a "highly infectious digital sneeze" .

Visual marketing as it applies to apparel means launching a product by stimulating the curiosity of the target audience with unbranded posters or cryptic messages on Web sites and by infiltrating underground clubs or placing ads in non mainstream magazines. The target audience is young people who have grown up with traditional marketing and no longer want to be marketed to. Instead, they prefer to discover products through word-of-mouth. Companies see these consumers as culturally creative trend initiators.

**INNOVATIONS**

For something to function as an innovation; the consumer must perceive the newness or novelty of the proposed fashion it must seem different when compared to what already exists in the wardrobe, across the social group, or in the market environment. This degree of difference from existing forms is the first identifying characteristic of an innovation.

Rogers identified characteristics that would help or hinder the adoption of an innovation:

- Relative advantage is the perception that the innovation is more satisfactory than items that already exist in the same class of products.
- Compatibility is an estimate of harmony between the innovation and the values and norms of potential adopters.
- Complexity is a gauge of the difficulty faced by a consumer in understanding and using the innovation.
- Trial ability is an evaluation of the ease of testing out the innovation before making a decision.
- Observability is the degree of visibility afforded the innovation

An innovation will be more readily accepted if it is conspicuous, clearly better than other alternatives, easy to understand, simple to try, and congruent with the value system of the consumer.

Marketing and merchandising focus on educating the consumer about an innovation and lowering barriers to its adoption. Spritzing consumers with fragrance as they enter department store increases trial ability, ads showing how to wear the latest accessory reduces complexity, the fashion show illustrating how to coordinate new items demonstrates compatibility. Many other marketing tactics are aimed at lowering the barriers to the adoption of a fashion innovation. One other characteristic inhibits or

encourages adoption of innovation perceived risk. A consumer, when considering something new and novel, imagines beyond the purchase to the consequences. The consequences may involve:

- *Economic risk*—the risk of performance problems after the purchase, the risk that the purchase price may reduce the ability to buy other products, and the risk that the price will fall after purchase.
- *Enjoyment risk*—the risk of becoming bored by the purchase or not liking it as much as expected.
- *Social risk*—the risk that the consumer's social group will not approve.

#### FADS AND CLASSICS

The terms fad and classic are frequently used in discussing fashion, but do they have a precise meaning? Fads have been defined in different ways:

- As involving fewer people, of shorter duration, and more personal than other fashion changes.
- As outside historical continuity—each springing up independently with no forerunner and no successor.
- As satisfying only one main need, the need for a new experience, and having little value once the newness wears off.

Fashions are themselves of short duration when compared to long-term social changes. Fads are fashions of even shorter duration. The difference between fads, fashions, and classics can be visualised using variations on the diffusion curve. Classics are enduring styles that seem to reach a plateau of acceptance that endures for a long period of time.

Fashion and fads share many of the same characteristics. Meyersohn and Katz offer a comprehensive natural history of fads identifying these distinctive characteristics:

- Fads are typically confined to particular segments in society.
- Unlike new social movements that create a new social structure, fads move swiftly through a subgroup but leave the subgroup itself stable.
- Fads offer a simple substitution for some predecessor item.
- Fads are trivial, not in terms of the emotion or functional significance of the item, but in terms of its life expectancy—a fad is susceptible to being outmoded.

Meyersohn and Katz assert that fads are not born but rediscovered from a style that existed all along in the lives of some subgroup. Likely beginning points for fads include the upper classes and bohemians because these groups represent a special kind of laboratory where experimentation can take place without threatening society as a whole. Many other observers of fashion recognise the same source for fashion ideas—the elite and the outsiders.

Innovative ideas are discovered by fashion scouts and moved from source to marketplace by tastemakers. Scouts—journalists, fashion directors, forecasters, and merchants—have the ability to recognise and transmit fads from the subgroup to the mainstream because they have a unique understanding of both. Tastemakers—celebrities, models, fashion stylists, and fashion leaders—increase the visibility of the innovation and make it acceptable to more consumers.

Exporting a fad from the subgroup to a wider audience usually involves modifying the idea in ways that make it more acceptable to a broader audience. As a fad emerges from its cocoon in the subgroup, it undergoes developmental stages. First, the phenomenon is given a name, label, or slogan that becomes a popular identifier. Dior did not call his post-World War II rediscovery of close-fitting bodices, small waists, and full skirts “the New

Look." A journalist in a review of the designer's collection used that term. The term stuck because it captured the spirit of that time, the radical change in silhouette that resonated with change in all aspects of life. With the labelling comes a surge in interest.

Then a coattail effect begins when industry people recognise the potential of the fad and produce it and other allied products. Flow results when the fad passes from group to group across social boundary lines. If the innovation has broad appeal and staying power, the fad transforms into a fashion. With "the new look" this process took less than one year.

Two conditions signal the end stages:

- The fad loses its stylistic integrity as it flows through society.
- Feedback in terms of demand may stimulate a frenzied increase in production, leading to overproduction and rapid saturation of the market.

Another signal of the end of a fad is excess. Paul Poiret, a great couturier at the beginning of the 20th century and a master of fashion change, saw the role of a designer as providing unending novelty. Poiret's credo was that "all fashions end in excess" -that is "a fashion can never retreat gradually in good order" but instead collapses. Eventually, the fad ages and departs the scene to be replaced by a successor.

Jumping on the bandwagon of a fad is tricky, but there are some guidelines for this manoeuvre. Greater staying power is achieved if the innovation meets a genuine need or function, is associated with other long-term trends and concurrent trends in other industries, is compatible with the values of society, and has high visibility. The problem for designers in assessing a fad is that they may see trends where none exist—that is, their point of view tends to exaggerate the importance of fads. The problem for managers is that they may delay to the point where they miss an opportunity to participate.

Purchase decisions are the result of an approach-avoidance reaction. When the buyer sees potential satisfaction of a need, want, or aspiration in the possession of a good, then the buyer makes the purchase. If the satisfaction sought is thwarted by price, by the effort of searching, or by some compromise in product design, then the purchase will not be made. Every purchase is a compromise between the attributes desired and the product that is offered.

The classic is a style that changes minimally over time. It remains within the acceptable range in terms of attributes offered and expenditure in terms of time and money. Classics represent midpoint compromises that deliver at least the core attributes desirable to the consumer. Additionally, classics appeal to a special kind of personality seeking to avoid extremes in styling.

#### **FASHION MOVEMENT**

Trend watching is an avocation enjoyed by many. Even a casual trend watcher will see discernable patterns. At some point in time, people begin to feel that wearing colourful clothes is unsophisticated and that black is "cool". Closets fill up with neutrals until, seemingly overnight, black looks drab and monotonous. A creative street fashion or a fashion runway fills up with pink and suddenly colour seems fresh and inviting. Every aspect of fashion from colour to the length of skirts, to the shape of the silhouette, to placement of pockets, is in constant motion.

Anyone can pick up on a trend when it lands in the mailbox trumpeted in magazine headlines complete with an eight-page photographic spread. For the fashion professional, recognising a trend at that stage means that it is almost too late to use the information for competitive advantage. Instead, fashion executives look for competitive advantage by identifying trends early. To do that they must position themselves in the most likely spots to watch for emerging trends. With experience, a trend watcher

becomes skilled at spotting the elusive and subtle shifts that signal fashion change.

Observation is not enough. If the trendwatcher is to take advantage, he or she needs a framework for explaining how the trend began and its likely path within a social system. The directional theories of fashion change make prediction easier by pointing to the likely starting points for a fashion trend, the expected direction that trend will take, and how long the trend will last.

Like fashion itself, the theories that explain fashion movement are constantly revised and refined. The fashion forecaster's toolbox contains all the explanations and recognised patterns that have explained past fashion and can be used to arrange and order current observations. Social scientists continue to seek better explanations and to suggest new theories of fashion change. The forecaster uses the theories by matching observations with the explanation that best fits, then projecting the next stage.

Visualising the most likely pattern of change is a first step toward prediction. Abstracting a theory into a visual representation clarifies the situation and aids in analysing what comes next. Visualisations—a layer cake with each layer representing a stratum of the marketplace or the formation of a fashion wave help explain the concepts and communicate the logic of predictions to others.

Trend watching executives move in the social world observing, categorising what they see, and matching that to the preferences and behaviour of consumers. These fashion professionals seem to make their decisions "from their gut" in a mysteriously intuitive process. Actually, that intuitive response is the result of a highly developed sensitivity to the social environment plus the almost instant application of one of the forecasting frameworks.

Experience and application of the best explanations cannot guarantee success—the situation is too complex for absolute accuracy in prediction. However, preparation and

practice can improve the odds for professional trend watchers.

## **PRESENTATION DESIGN**

An eager audience has gathered for a presentation on the latest fashion trends. The room buzzes with conversation. People manoeuvre for a good seat, trying to find a spot near friends but with a view of both the screen and the presenter. The mood is expectant. Today they will see a multimedia presentation tying together ideas, images, and themes to show the direction of fashion change.

The fashion forecaster prepared for the occasion by aggressively collecting ideas, hints, innovations, signals, signs, and indications. The process involved travelling to the fashion capitals, visiting showrooms and boutiques, watching trendsetters, scanning media, and reading everything possible that might relate to fashion change. Some discoveries were made because of her deliberate efforts, some through serendipity. The forecaster saturated her senses and her environment with all the possibilities. Identifying trends was a necessary first step, but that alone is not sufficient to prepare a presentation. At some point she began to sort, organise, and edit the material searching for relationships and patterns. This process creates meaning, which she will convey in her presentation. Just as creative is the process of choosing the style of the presentation and collecting or devising the visuals to illustrate key points.

The audience awaits an experience. Their goal is to depart with knowledge that will guide and support decisions for their companies. The success of this venture for both presenter and audience depends on transforming data into information and knowledge. The presentation allows each audience member the opportunity to understand, consider, evaluate, and interpret the content-personal process that leads to wisdom.

### **Data Gathering and Pattern Recognition**

The metaphor of a kaleidoscope versus a teleidoscope explains the forecasting process. The kaleidoscope creates new patterns and combinations as light passes through the translucent cover and hits the chips and bits that are inside the barrel. Moving the kaleidoscope causes patterns to form and reform. The teleidoscope is similar in construction except that the cover is transparent and the new patterns and combinations are formed from the changing environment wherever the scope is pointed.

So it is with a creative person who uses what is stored inside but also seeks a continuous flow of new viewpoints. Creative behaviour is a function of knowing, imagining, and evaluating. The more data a person has to work with, the more ideas, patterns, and combinations can be generated. The fashion forecaster scopes out the patterns forming and reforming in the worlds of fashion.

Looking inside the textile and apparel industries, the forecaster sees how the elements inside the structure shift, move, and reshape themselves (the kaleidoscope approach). Looking at the social, cultural, and economic world, the forecaster examines the fusion and fragmentation of tastes, styles, and ideas (the teleidoscope approach).

Pulling together all these images and impressions involves creative problem solving. The human brain "knows" in two different but collaborative ways: by using logical, linear, analytical thinking based on facts and reason and by using intuition, feelings about how things fit together, pattern recognition, and leaps of insight. Everyone uses logic and intuition, reason and insight, but the fashion forecaster must be especially adept at using both approaches.

During the creative process leading up to the presentation, the forecaster's mind oscillates between divergent thinking-generating many alternatives, many

possible meanings-and convergent thinking-seeking one conclusion, the best alternative, one meaning. The brain rapidly generates hypotheses to explain data, makes new connections, and evaluates alternative explanations imaginatively.

Given all the possibilities and sources available, the forecaster runs the risk of flooding the audience with images. The presentation fails if audience members are left on their own to sort and make sense of what they have seen. Instead it is the presenter's job to create meaning by reporting on trends and suggesting applications for specific situations in product development, merchandising, promotion, retailing, and visual merchandising.

#### **TREND REPORTING**

The role of a fashion forecaster is to identify, develop, and present fashion directions in fabrics, colour, and style and put them into the context of the culture and lifestyles of consumer. The forecaster explains what is happening, why the trend is developing, and who is leading the trend. Fashion forecasting is a resource for product development, merchandising, marketing, and retailing executive. Trend reporting helps these executives interpret fashion change by relating new directions to brand or store strategy.

Trend reporting begins by describing the appeal of a trend via labelling. The label may refer to:

- A look-retro, minimalist, Japanese influence.
- The mood or spirit-youthful, sophisticated, playful.
- A lifestyle message.
- A tie-in with a celebrity.
- A target market-urban youth, working women, early retirees.
- A brand image or designer's name.
- A concept-career casual, investment dressing, mix-and-match.

- The source of inspiration, whether historical or ethnic—La Belle Epoque, Moroccan.
- A pop culture influence such as a hit movie or TV series.

Trend reporting continues the labelling process by describing the basic elements of the trend:

- Fabric-fibre content, functional attributes, texture, pattern.
- Colour-hue, value, intensity, colour schemes.
- Silhouette-shape of the garment, hemline, coordinating elements of the total ensemble.
- Details and design features.
- Subtleties of fit, proportion, and coordination.

The description may also include attributes such as the size category, price category, and the season. Describing the trend is only the first step in trend reporting. The forecaster must also provide a trend map detailing the stage in development and probable scope of each trend.

#### TREND MAP

The trend map identifies which trends are just emerging, continuing to build, or declining. The theories about fashion dynamics and the product life cycle provide frameworks for these observations. To the apparel executive, the mainstream, continuing trends are the core business. Exit strategies must be devised for clearing merchandise associated with declining trends. Emerging trends represent the opportunity to test the potential and get in on the ground floor of the next big thing.

The trend map draws distinctions between major trends—those that will appeal to large groups of consumers—and minor trends—those with niche appeal to small groups of consumers. Major trends are fabrics, colours, styles, and looks that are likely to move into the mainstream. These trends have already been tested in the market and continue

to receive support in terms of sales and media coverage. They represent volume sales potential. Minor trends have more limited sales potential because they are too avant-garde, too distinctive, or too complex to appeal to a broad audience. However, these trends have potential for regional sales or in retail settings congenial to the look. Minor trends often appear at the top of the price range or at the bottom. Fads often play out as interesting and fun minor trends.

The trend map must indicate the quality of each trend. Some items, styles, or looks are trial balloons—designer experiments to gauge the effect and potential of a new idea. These trial balloons are likely to be commented on by fashion insiders and the media but will not receive support from most retailers. Occasionally, a trial balloon has strong, instantaneous appeal because it is the perfect statement mirroring the spirit of the times. In those rare occasions, the item or look becomes suddenly “hot” and sells out quickly. The initial restricted availability and strong reaction combine to drive the popularity of that item. Some items, styles, or looks represent embryonic trends—that is, trends in the very first stages of development. Perhaps a trial balloon in one season is further developed and given more prominence in the next season.

The trend has not yet developed, but the look is poised to take off; fashion insiders are tracking its development; but the public is largely unaware of its existence. If fashion innovators and fashion-forward retailers adopted a specific look, it is termed a directional trend. For more mainstream companies, directional trends offer the opportunity to introduce the thrill of the avant-garde by featuring the trend in a promotion, through visual merchandising, or in fashion shows. While most customers will end up buying only merchandise associated with major trends, the directional trends bring excitement and a feeling of forward motion to fashion.

It is important for the trend map to establish relationships between classifications:

- Skirt length and pants styles influences shoe design and height of heels.
- Style and design of ready-to-wear influences hosiery.
- Outerwear coordinates with the style and fit of dressy and casual looks.
- The structure and fit of apparel relates to the styling of innerwear and vice versa.
- Accessory stories closely parallel the fashion story, tapping into the same design inspiration.
- Makeup and hairstyles coordinate with apparel styles.

Finally, the forecaster must make recommendations. Based on an understanding of the marketplace and fashion dynamics, the forecaster estimates the timing of a trend-how soon the trend will "hit," how long will it continue. In addition to timing, the forecaster must estimate the scope of a trend-how big will it be, how broad an impact will it have on markets. Recommendations indicate the relative strength of various trends and the kind of investment in product development and merchandising that they merit.

### **Concept Boards**

Concept boards are used in the product development stage to coordinate the efforts of the design team. Having a visual "concept" of the fashion direction helps in the editing process the decision making when the design team selects from the many ideas proposed those that have the strongest potential to succeed in the marketplace. The strength of that potential rests on reading fashion rightly and projecting a consistent image within each coordinated group and across the groups that make up the line.

Concept boards are used in selling apparel internally to the manufacturer's sales force and externally to retail

buyers. Sometimes a single concept board is used to convey the source of inspiration, the colour and fabric story, the styling, pricing, and key specifications in a visual way. Other companies opt to use one board for the colour story, one for the trend story, and another to suggest visual merchandising options. The boards facilitate communication between the buyer and seller.

Information on concept boards can often be traced back to trend boards for the fashion forecast. Trend boards identify the mood or spirit of each trend and its thematic focus. The best themes fuse visual and verbal elements into a vivid image. Here are two examples where the combination of an evocative theme, the visual development of the theme in fashion, and the verbal flourish engages the viewer's psyche.

### **Classical Jazz**

The forecaster may recognise a pattern among suits on fashion runways around the world-classical styling but with just a touch of the unconventional in fabrics, design details, and colours. The forecaster creates a presentation board to convey this trend by creating a collage of examples by many designers and adding the phrase "Classical Jazz." The phrase captures perfectly the idea that designers are improvising on a classic silhouette in the same way that jazz musicians improvise on a classic tune.

### **Desert Drama**

Perhaps the biggest movie coming out next year features a love story set in the 1930s where the lovers make a long trek through the desert. The costumes inspire an interest in the clothes worn by liberated women of the thirties who were explorers, pilots, photographers, and foreign correspondents. The fashion forecaster, reports this direction on a trend board juxtaposing stills from the movie, ravishing photographs of the sculptural shapes of sand dunes, and new fashions. He ties together the

inspiration and the look in the phrase "Desert Drama." When designers, manufacturers, and retailers pick up on the trend, each is likely to recast the theme slightly to reflect their own customers' interests and sophistication.

For example, a mainstream department store may pick up on the adventurer theme and the neutral colour scheme from "Desert Drama," pair it with a promotion of rugged, functional casual clothes, and call it "Entering Neutral Territory." The underlying trend information is present but the theme has been translated in a way that gives the user an opportunity to craft an image.

Coming up with the concept is a high form of communication, one that involves many levels of meaning. Fashion forecasters must be masters of this form of communication. Finding themes that capture the essence of a trend is a creative challenge for the forecaster. The themes may be inspired by something occurring in the culture-in science, current events, fine arts, performance arts, sports, or popular culture. Or, the inspiration may come from travel destinations and ethnic influences.

Trends often resonate with past fashion periods, and the words and images of those times are used to convey the connection. The theme, once identified, becomes the unifying force. The typeface, graphics, borders, and background colour are selected to further the theme. Computer-generated type avoids the amateurish effect of hand lettering.

Experimenting with the typeface-upper and lower case, effects such as bold letters, and other techniques-connects the message of the text with the theme. Photographs, sketches, fabric swatches, and colour palette are all coordinated to the theme. If colour names are used, the names relate to the theme. For example, colours associated with the jazz theme might be red hot, blue note, and brass while colours in a trend story about the influence of China on fashion might have names such as lacquer red, jade, and Ming blue.

The layout of the trend board controls how the viewer sees and comprehends the content. Forecasters use every design device to keep the eye of the viewer moving within the borders of the trend board. The best trend boards have a focal point with all the items arranged to move the viewer's eye on a path around the board. Weak trend boards direct the viewer's eye away from the images. "White space" allows the viewer's eye to rest, but too much space can detract from interest in the images. The best effects are achieved when the space on the board is divided into interesting, arresting, uneven units rather than the more ordinary half-and-half. Forecasters use trend boards at every stage in the forecasting process.

Trend reporting begins with new developments in fibers, yarns, blends, and fabrics. Colour forecasters use trend boards to communicate the seasonal colour forecast. Fashion directors working for manufacturers and buying offices working for retailers use trend boards to report on fashion trends from the runways and the streets.

## **PRESENTATION TECHNIQUES**

Aggressive research and brilliant analysis of fashion trends can come to nothing if the presentation is lackluster. Research and analysis transform data into information, but the fashion forecaster must also be a performer interacting with the audience. Ideas are exciting only if they are communicated with power and assurance. The audience is on the side of the speaker. They come to the meeting with high hopes of spending an entertaining interlude learning new things. They also come with the distractions of their business and personal lives and the fear that they may be wasting time attending this meeting. It is up to the speaker to engage the audience immediately in a shared experience with a strong introduction.

Instead, a good opening acknowledges the purpose of the meeting, sets the stage for the body of the speech, and captures the audience's attention. For example, surprise the

audience with several examples of fashion behaviour that seem unrelated and show a connection. Or, bring the audience into the data gathering experience by showing a street scene with a variety of people wearing looks that relate to the trends in the presentation. Or, enlighten the audience by showing the parallel between fashion behaviour and something else happening in the culture such as a new dance craze or direction for interior design. Brief clips of interviews with consumers who are very pleased or very displeased with the state of fashion set the tone for a lively session. It is not difficult to find a creative and colourful way to begin a trend report.

All it takes is brainstorming and a commitment to getting off on the right foot with the audience. Speakers are frequently advised to "tell them what you're going to tell them, tell them, and then tell them what you told them." This is good advice. Hearing information presented is not as effective as reading for the transfer of knowledge. By repeating the main points three times in different ways, the presenter allows the audience to take in and process the meaning.

Presenters often introduce the topic and provide a brief overview-a kind of teaser that will keep the audience looking forward to the unfolding of the ideas and information in the talk. Then, they proceed in an organised way to the core presentation using variety and change of pace to maintain interest. The final repetition comes in the conclusion of the presentation.

The ending is just as important as the beginning of a speech. The goal of the conclusion is to drive home the key points, motivate action, and leave the audience inspired and energised. The conclusion is not tacked on but flows smoothly from the core presentation. Perhaps the speaker returns to the images used in the beginning of the speech and elaborates on the content and meanings. Or, the conclusion could be a flash summary of the key trends. Whatever the content of the conclusion, there are several pitfalls to avoid.

Some presenters attempt to present new information in the conclusion—a problem for the audience because there is not time for processing the ideas. Other presenters tell the audience that they are going to stop and then proceed on for several more points and several more minutes—a techniques that irritate the audience. The audience needs a clear signal that the speech is over. The most poised presenters stop talking, smile, pause while maintaining eye contact with the audience, and either ask for questions or leave the podium if no question-and-answer session is scheduled.

### **Impact of Visuals**

The trend boards can be used in a presentation or the trend board can be photographed either by conventional or digital camera and reproduced in sizes ranging from postcard to poster. They can be shown as slides, scanned into computer programs to become part of computer-generated slide shows, or printed as transparencies to be shown on an overhead projector.

In a short presentation of 10 to 30 minutes, it is difficult to find the time to show a video. But if the tape is edited and cued up properly, a short video segment can add realism to a presentation. Videos of runway shows and street fashion give the audience the feeling of seeing trends firsthand. When trends tie into larger cultural issues, video clips help the audience see the bigger picture. Videos of interviews either with consumers or with designers enliven a presentation. The backbone of many presentations is computer-generated images using presentation software. With this technology everyone gets to be a graphic artist but the results are often amateurish.

Visual impact improves when presenters follow a few guidelines by:

- Keeping the colour choices simple, limiting the number of colours to three or four for the whole

presentation, and avoiding complex screen patterns and shading.

- Creating a “master slide” with the colour scheme, page design, and design elements such as bullets, and using that template consistently throughout the presentation.
- Improving the readability of the text by using a large, easy to read font and making the contrast between background and text strong dark on a light background or light on a dark background.
- Following the K.I.S.S. principle in designing each slide: Keep It Simple and Short.
- Using appropriate clip art and importing graphics to enhance the presentation.

Whatever the production method, visuals should not overpower the speaker or the content. The first task is finding the best, most representative visuals; the next, writing clear and compelling titles that are easy to read. Whether on a trend board or a computer-generated slide, a visually pleasing layout helps convey the message. When visuals are integrated carefully into the organisation of a presentation, they add appeal and make the content more accessible to the audience.

Most people, even experienced speakers, have stage fright. After all, the speaker has lots to think about:

- The content of the speech.
- The comfort of the audience.
- The attention level of the audience.
- Whether the speech is running too long or too short.

Still, there are ways to make the speaker more comfortable and more confident.

The best tips come from actors for whom stage fright is just another challenge that comes along with their career choice. The best remedy for stage fright is good preparation

so that the speaker is completely fluent with the content, visuals, and order of presentation. Actors swear by rehearsal and so should speakers. Too often, the last minute rush to complete preparations deprives the speaker of time for practice. If a speaker is convinced that he or she has something worth listening to, then that confidence has a magnetic effect on the attention of the audience.

Stage fright just before getting up to speak is normal. A slight case of nerves gets the mind and body sharply awake and ready for a challenge. Excessive nervousness may come from worries about whether the audience will like the speaker. Skilled presenters shift the focus away from the personal by asking instead whether the audience will understand the trends. If the speech is well researched and thought out, the answer will be yes. With this realisation comes confidence.

Nervousness sometimes results in shallow breathing. Taking slow deep breaths before arising to speak means that the body has stored enough oxygen to provide the energy to begin talking. After that, the momentum of the narrative and the importance of the points will carry the talk forward.

The audience is most comfortable when the presenter talks in a relaxed but energetic way. The style should be conversational. By speaking to different parts of the room during the talk and maintaining eye contact with the audience whenever possible the presenter draws more people into the content. Making points with gestures can be overdone, but gestures are appropriate to emphasise points. If the speaker enjoys the presentation and gets involved with the content, the audience will, too.

A professional forecaster is also a professional communicator. Polishing these skills is just as important as any other aspect of the job. There are excellent books on the topic for those who prefer to learn on their own. There are also classes and seminars for those who like

group learning situations. There are organisations for people who want to continuously improve their speaking abilities through practice with helpful feedback from fellow members. Finally, there are vocal coaches who work with people one-on-one to overcome problems and improve their comfort level with public speaking.

### **Equipment Management**

Ask any teacher, salesperson, or lecturer about what can go wrong during a presentation and he or she will talk about equipment problems—a slide projector that jams, an overhead projector that blows a bulb, a VCR that keeps stopping abruptly and ejecting the tape, a data projector that will not focus. Even an easel that is the wrong size or too light to hold a trend board can cause problems. Anything can happen and frequently does! The only cure for these disasters is a sense of humour and some technical expertise. Sometimes the sponsoring group or the meeting facility provides equipment managers who troubleshoot problems. If none of these helpers are available, then the presenter must come up with a solution.

A trend report has some built-in problems and solutions in terms of equipment. The forecaster may use actual trend boards in the presentation. Even if there is no easel, trend boards can be propped up against a chair or even against the wall and the talk can proceed. Trend boards that have been reproduced as slides or transparencies carry the risk of equipment failure, but slide and transparency projectors are generally reliable and replacement equipment and bulbs are usually available. If trend boards have been scanned or digitally photographed as part of a computer-generated slide show, then both a computer and a data projector are required. The most common problem in this situation is failing to have the proper cables to join the equipment together. Whatever the equipment, here are some tips for the fashion forecaster who is also a road warrior:

- *Call ahead.* Check with the presentation sponsor well ahead of the date of the talk. Discuss the equipment available, size of the room, and technical assistance.
- *Come equipped.* If there are any doubts about equipment at the location, bring equipment along. Portable overhead projectors, laptop computers, and data projectors are all made to travel. Equipment can often be rented if the presentation is in a metropolitan location. All equipment should include backup bulbs, cables, power cords, and extension cords.
- *Carry backup.* If the presentation is on the hard drive of a laptop computer, carry a duplicate on a floppy disk. If a computer-generated presentation has been transferred to slides, carry a set of the identical presentation as transparencies. If the presentation consists of slides picturing fashions, street scenes, and trend boards, carry an extra copy of key slides just in case slides are lost or destroyed by an equipment malfunction. If possible, carry two copies of any videotape that will be used in the presentation.
- *Leave a paper trail.* Regardless of the equipment, plan to distribute printed copies of the key points to the audience. It is a courtesy to provide paper for notes and a reminder of the key points. Computer-generated slide shows offer a convenient way to accomplish this task because they allow the presentation to be printed out six slides to the page. Some speakers have the handout on the chairs prior to the arrival of the audience. Others pass them out before the beginning of the talk. With notes in hand, even if all the equipment fails, the speaker and audience have a joint reference point and the talk can proceed. Whenever possible, an experienced speaker will scout the room ahead of time, rearranging the equipment in a way that suits the presentation content and the audience. Sometimes a room is not set up for a meeting until a few minutes before time to begin, but if there is time,

a little practice in the space where the presentation will take place helps build confidence. Finally, visuals are an important part of a trend report but they are not the most important part. The most important part is the speaker and the insights and information he or she is there to share. An experienced speaker does not let equipment stand between the messenger, the message, and the audience.

## PRESENTATION TOOLS

Today, trend boards and other presentations can be completely computer generated. Graphics can be captured into the computer from Web sites, scanned in, copied from disks, and transferred from digital cameras. Images can be manipulated with software packages that crop, resize, shift colours, alter focus, and create many other special effects. Text can be added in different fonts, sizes, and colours. Original graphics can be created with drawing and painting programs.

Styles, colour ways, and textile designs can be illustrated with computer-aided design (CAD) programs. CAD makes sharing images between design teams, manufacturers, and retailer's routine. Although this sounds like a great advance, not all problems have been eliminated. Computer hardware and software for such graphic-intensive uses are expensive. Graphics take up a lot of storage space on computer hard drives and floppies.

Decisions must be made about the resolution (the number of pixels horizontally and vertically that make up the graphic) depending on the image, the scanner, and the computer. The higher the resolution, the more memory required to store the graphic. Without sophisticated colour calibration software and colour matching between the original colour of the images, how they appear on the computer screen and how they look printed out require compromise or careful trial-and-error experimentation.

Because all the problems are not worked out, most forecasters use a combination of traditional and computerbased techniques. Nowadays multimedia presentations of forecasting information arrive as interactive CD: ROMs or on Web sites. Many of the design principles for creating presentations can be transferred to the design of a Web site. Software packages and books are available to guide users in designing Web sites. Web sites can incorporate short video clips and sound bites along with text, graphics, and photographs. Additionally, Web sites offer the opportunity for interactive participation by visitors in chat rooms and feedback via e-mail. Taking full advantage of these possibilities awaits a new wave of fashion forecasting professionals.

#### COMPUTERS IN FASHION DESIGNING

The world of fashion and the world of computers have one thing very much in common. They both change. Keeping up with fashion trends as well as new developments in software for the fashion designer can be a full time job. When CAD first hit the fashion scene in 1987 there were few designers, let alone garment manufactures, who were taking to this new technology. When attempts were made to analyse these new CAD software packages they were usually left for the MIS directors or the systems analysts. Today all that has changed. The designer is finding a more predominant role in all the decision making within the garment industry in terms of what software best feels like a creative tool in order to design clothes.

Like all new developments many of the companies have left, and the ones that are still in existence have perfected their systems, and for those companies that saw that more creativity was needed in the CAD and software field they have put in their bid for market share. An exception to pure market share, and leaning more to the educational side of making available one of the most widely adopted software packages in the AutoCad

environment is ApparelCAD developed by Phyllis Bell Miller now teaching at Mississippi State University. The United States Navel Air Development Corp in designing uniforms and protective clothing has purchased ApparelCAD. Soon to be published by Delmar Publishers out of Albany, NY will be a new textbook by Miller titled: AutoCAD for the Apparel Industry. The book will provide a step by step instruction plan for fashion illustration, pattern making, grading, and marker making with AutoCAD. A key feature in Miller's software package is representative as to the general trend in all software packages. Miller claims to have 45 new commands which streamline the pattern-making process, and more than 50 new menus which allow easy access to slopers, symbols and many preset text styles. Miller is also offering a complete set of slopers for the misses as well as croquis figures for fashion illustration. Another trend which users will see when they install their new software are new help features.

It is difficult to follow every development, but there are new players on the fashion software block that are worth looking at. Before mention some of these newer software packages it is important to mention right off that each package satisfies a particular need, and it is still the most important consideration in any purchase of a piece of software. These needs range from a pure merchandising tool, to a complete CAD/CAM/CIM approach, to just a fashion illustration approach.

One of the newest product on the market for the fashion industry is SnapFashion developed by Bill Glazer, president of Modability Inc. This product is not to be confused with ModaCAD either. Glazer has been referred to as the Ambassador of California Fashion to the USA and to the World. Glazer is well known for his fashion reports, which are known in the industry as Report West, Europe PhotoBox, Los Angeles PhotoBox, and PhotoBox Men.

SnapFashun is a new software program to assist fashion designers. It is called by some the ultimate "pictionary" of design details with a library of over 3000 design elements that have been proportionately drawn so they can be "snapped" together to create items with great accuracy and speed. SnapFashun comes with a MAC IIsi, with a suggested 5 MB of RAM and an 80 MB Hard Drive with a 13" RGB Hi Resolution colour monitor. The keyboard and mouse are standard, and Glazer is suggesting a Personal Laser Writer printer, and he supplies all the software you need. SnapFasun has three major parts, which include a fashion library, a fashion sketchbook and an electronic sketchpad.

With SnapFashun, a typical scenario would be to go to the library, and select a particular folder, which has a complete library of a fashion item such as pants or jumpsuits etc. Next, each one of the variations comes up on the screen. The sketchbook section allows the user to tag descriptive information and freeform notes to the sketches, and the sketchpad module has the software SuperPaint developed by Silicon Beach bundled into the program which enables the user to design a line combining the pieces from the library. SuperPaint allows the designer to customise all existing pieces or even draw new pieces from scratch. Glazer provides the user of SnapFashun with a periodic update to the library including the latest trends in colours as well as silhouettes. SnapWest is updated 10 times a year out of Los Angeles and SnapEurope is updated 4 times a year. Granted this is not a full-blown CAD package, but then it was never intended to be. Glazer felt that the designer was the only member of the company that did not have a computer as an aid in the design process.

Now the designer can have a vast library with the complete capability of interchangeability with every design item, and the security of knowing that there will be updated trends on the way. For the individual designer

not depending on the larger corporation to make all the trend decisions this is a perfectly good option. Not to slight the larger companies the individual designer now has viable pattern-making software to choose from, and at a reasonable price in order to develop the all important pattern pieces. There are three new pattern-making software companies, which are providing, for around a \$1,000, some very flexible alternatives to the larger company's pattern-making package.

BetaCAD AD 2.1 is a CAD package that addresses the design need for quick and efficient line development. The Ad package allows the designer to design new designs or copy existing designs. BetaCAD also has a library of the latest designs, and are also available for silhouette development. There is also another module called BetaCAD PDS 3.1, which enables grading, and marker making. BetaCAD is another package, which runs in conjunction with AutoCAD software using either release 10 or 11. It can run on as little as an IBM 286, but requires MS-DOS 3.0 or higher and sells for \$1,295.00.

Pattern Works is another IBM compatible software package requiring a 386 with a math co-processor, 4 MB of RAM and a 40 MB Hard Drive at minimum. With the help of the developer, Isabell Lott, a great deal of attention to the designers need has also been built into Pattern Works, and again it is so important to have a walk through on any of these software packages to determine if they feel like the work habits you are familiar with. Screen design is a big issue in these packages. Whether or not the software flows intuitively to one step to the next in the design process is usually only achieved when a programmer and a designer work together. Pattern Works is such a package. PC Pattern from Pattern Works comes with a complete line of basic slopers or pattern blocks for men, women and children. There are a total of 501 pattern pieces. And, in keeping with the self-help trends there is also a user guide to the program, which includes the grade

rule and actual measurement specifications for each sloper size range. It is even possible to use your own sloper. PC Pattern includes all of the pattern drafting tools familiar to the clothing trade. You can pick pattern symbols, such as notches, dot, crossmarks, and grainlines, from the tool tablet.

In White Rock, British Colombia Lauraline Grosnick has developed CADTERNS enabling the designer to design custom patterns. All the measurements in this package are used directly to draft the pattern. Bundled in CADTERNS is a Lotus 1-2-3 spreadsheet converting all the measurements into a set of points, lines, and curves in the form of a set of input commands for a CAD system. Again AutoCAD accepts these input commands, and will plot the individually drafted slopers on the monitor, or send the commands to a printer or plotter. The major feature nested in this software is the slopers, which are drafted for height as well as circumference variations. All the dart points and dart circles are clearly marked at each dart location, and all the slopers can be previewed on the monitor and styled before the pattern is plotted. CADTERNS provides the pattern-maker to make custom slopers, which is essential for specially styled personalised patterns. The work can be ported over to autosketch in the AutoCAD software via .dxf files. System requirements are an IBM pc with a min of 512K RAM. MS-DOS version 2.0 is ok to use as well as Lotus 1-2-3 Release 2.2 as well as version 10 of AutoCAD. In September MS-DOS version 4.0 can be used as well as Autosketch version 3 by AutoCAD. Again in keeping with the trends CADTERNS will offer an optional computer assisted pattern-making Tutorial.

With the exception of SnapFASHUN all the systems have been running on DOS operating systems. Macintosh does have quite an entry into the fashion software market, and ModaCAD, out of Los Angeles, is still expanding its offerings and now introducing retail and merchandising systems. However, it is the smaller companies that have

specialised in one aspect of the design process where you can see the best refinement in the software. Three examples of this specialisation are POINTCARRE textile software for the Macintosh from Quebec, AVL Looms from Chico CA. also on the Mac, and PrimaVision from JN Computer Group in NYC.

PrimaVision is one complete package for print/woven/ and knit design. With this package there is automatic colour groupings of the scanned image. This feature is further developed whereby you can even change the multiple colours as well as all the colour fill patterns. What this software is emphasising is colour change quick and simple. PrimaVision even has a module called "Colour Combo Generator" which automatically allows the user to review the pattern in all possible colourways. Now that's convenience. And to make easy even easier PrimaVision has developed another module called the "Automatic Fabric Construction Generator" with any yarn creation. The software also employs automatic colour separation on film for silk screening.

It would truly be great if a designer one-day could communicate with all software packages by modem. The larger players like Gerber Garment Technology, Microdynamics, Investronica, Computer Design Inc, Shima Seki USA, Info Design USA, Lectra Systems, etc are still there. The larger companies also have high-end CAD workstations as well as the PC CAD workstation, and changes have been many with both workstation environments. For example, HABERDASH is no longer sold by the Mechanix Corporation, but by Microdynamics. Microdynamics has expanded into its MicroDesign product line. Microdesign is simultaneously developed by three companies:

1. Time Arts
2. Microdynamics owns Lumena source code so therefore verticalises Lumena for apparel and textile design and

3. Haberdash is the textile specific portion of the package including over 500 tools for woven, print and knit design applications.

Haberdash now has the new Yarndye groups. The Weave Set in the Yarndye group features and expanded range of twill constructions. There are also a complete range of Satin stitches with the Weave Set. A remarkable advancement made by the designer Nansi Weil, and her partner Keith Bickett are Two Leno stitches that have been added to the weave library. The finished image combines shadings of the colours, creating the illusion of air and "over" and "under" weaving. And one more feature among many is the new Pointelle stitches, which are a new set of cells in the knitcell path. With the Pointelle cell you can create your own template in the desired stitch size.

Computer Design Inc.'s software runs on the powerful Silicon Graphics workstations and also offer a PC version called Design Concept 2D as well as the high end workstation module called Design Concept 3D. For those who have not sat down in front of Computer Design software its hard to convey how utterly fascinating this software really is. For many, 3-Dimensional computing may seem far off in the distant future, but for this Michigan based company 3D workstations are the norm. 3D Drape gives the designer the ability to accurately create the 3-dimensional shape of a model fabricated from various flexible materials. All the 3D modules are impressive. For the individual designer the price is out of the question, but for a competitive edge in being able to accurately visualise the garment before it goes to manufacturing, and then to market, 3D will be the norm rather than the exception.

Gerber Garment Technology Inc has been developing some significant advancements with their own design software. Late last year Gerber unveiled the AcuMark Silhouette. Gerber has likewise become very innovative with the developing of production pattern making software. AcuMark Silhouette allows the pattern maker to

drape pattern pieces after they have been fully drafted on the screen. AcuMark is a formidable tool in utilising the full power of the computer to design patterns as well as see their shape. The specific tools which come with AcuMark are: Seam allowance creation, Pleats and Dart modification, and all the necessary pattern symbols. The final patterns can be immediately cut or plotted on the new AcuPlot 700. A new higher speed plotter is also available called the AcuPlot 310 and handles 24 cm or 9 3/4 inch rolls of paper, and can run continuously for 100 hours.

Pattern Data with AcuMark can be used as Pattern Design System (PDS), grading, marker-making and costing. The draping function is naturally the high light of AcuMark. Another aid to AcuMark Silhouette worth noting is the AcuMark Scan 100 which is a 91.5 cm (36 inch) wide system that can scan at speeds of 2.5 cm/sec or 1in/sec, and is precise as manual digitising. AcuMark Scan 100 is very valuable in a sample room where many styles must be produced in a short period of time. Another feature of AcuMark Scan 100 is regardless of the orientation of the pattern parts when placed in the scanner it will read all the grain lines automatically. Certainly these tools take full advantage of computer technology. Any designer who has gotten experience with some of the smaller pattern making software should have no trouble when asked to work on the AcuMark Silhouette.

The Spanish entry is of course Investronica and new commands and tools have been developed for Invesketch Designing & Illustration system. Investronica is a total package of hardware and software subsystem of the larger CAD capabilities Investronica offers the Apparel industry.

Investronica has developed their capturing of live images for eventual editing on the Invesketch system. The tools are not unlike many used in other systems. The detail to the full capabilities of the different tools is something Investronica has been working on. For example, the brush tool allows the user to control the way the colours are

deposited for sample smearing, stretching, watercolours, stripping, airbrushing or even distributing a "colour run".

The mask tool is very useful. It allows a mask to protect an area from being drawn on, or to treat it like a cut and paste function so common in the Macintosh software. In image processing there is a "pasturise" command allowing the reduction of the number of colours on a drawing. Naturally, once a designer enters one of these workstation environments it will become necessary to master that particular system.

Lectra Systems from France has improved their workstation 350+ environment. Their screen resolution is now 1280 x 1024, and their multi-windowing function allows the changing of windows with the hit of keystroke. The draping has been made easier with the addition of an automatic calculation of contour shaping of a fabric simulated on a torso in 2-D. Then its possible to apply fabric and fabric design or motifs with a click of the mouse.

Shima Seiki USA has created Mesh Mapping for 3-dimensional data. Mapping can now be done with shaded sections of an illustration or of a photo. This technique simulates a more realistic 3-dimensional texture. The Design Sketch module of Shima Seki allows for two types of drawing methods. The colour scanner as well as the cordless stylus which can in turn be used directly on the screen using any one of a number of tools selected from the screen menu.

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## Visual Merchandising

Visual Merchandising (VM) is the art of presentation, which puts the merchandise in focus. It educates the customers, creates desire and finally augments the selling process. This is an area where the Indian textile and clothing industry, particularly, the SMEs lack adequate knowledge and expertise. This inadequacy is best reflected in poor presentation/display and communication in various national and international exhibitions.

Visual merchandising is the “icing on the cake” . It’s the first tactile representation of projected merchandise that the customer will see. With an emphasis placed on the role of visual merchandising in the development of a retail image, qualified students are prepared for careers as visual merchandising directors in department and or specialty stores, display designers, stylists, and in display studios and other associated companies.

Visual merchandising today has become an indispensable and integral component of the fashion business. It is the tool or language that retailers use to communicate with the targeted customer. Visual merchandising is the passion and the pizzazz of retailing. Visual merchandising is a part of our popular culture. It adds to a pleasurable environment and has a welcome usefulness as a constant, constructive stimulus to better living that promotes the products of a healthy industrial economy.

Visual merchandising is a sale's—support activity that considers every window and shelf of a retail establishment a stage on which display, and thereby promote, the products and services offered by the store. It is becoming increasingly important in giving a store a competitive edge, since many stores share merchandise sources and carry similar items. It is that important element of merchandising that makes the difference in how the merchandise is presented; as well as defines a store's personality in today's marketplace.

### **GROWTH OF VISUAL MERCHANDISING**

Visual merchandising has been around since the dawn of civilisation, since humans started selling merchandise to a customer. When a vendor arranged his goods to be more attractive for a customer, or when a farmer put the biggest and ripest apples on top of the basket for consumers to see and touch, that is visual merchandising.

As the 20th century ended, and the new millennium was entered, retailers were concerned with competition more than ever before. One of the ways in which merchants of every product classification, both large and small, helped to distinguish themselves from the others in the field, was through creative visual presentations. The challenges that confront these specialists run the gamut from the display installations in their stores to the development of designs for the environments.

Today, Visual merchandising has become more sophisticated and more encompassing than arranging merchandise for easy access to customers. Visual Merchandising elements are put into practice from designing the floor plan of the store to the beautiful mannequins that grace the store floor. With the specialty marketing of the 1990s, visual merchandising is a necessity to the retail industry.

The importance of visual merchandising in present scenario can be well understood in:

- Educating the customers about the product/service in an effective and creative way.
- Establishing a creative medium to present merchandise in 3D environment, thereby enabling long lasting impact and recall value.
- Setting the company apart in an exclusive position.
- Combining the creative, technical and operational aspects of a product and the business.

Drawing the attention of the customer to enable him to take purchase decision within shortest possible time, and thus augmenting the selling process.

#### **VISUAL MERCHANDISING IN INDIA**

Unlike the western countries, where VM receives highest priority in commercial planning of a product, the Indian industry's understanding and practice of the concept of VM is inadequate. With phasing out of quantitative restrictions after the year 2004, the textile industry will have to compete purely on the competitive edge of the products and VM will be a helpful tool in projecting the uniqueness of the products and thereby increasing the market access and sales. It is high time that the Indian textile and clothing industry, therefore, understands and adopts the scientific and professional system of VM rather than the traditional practices of display of products and communication.

The essence of retail is defined by the ability to compel the prospective customer to stop, to look, and to buy. Today's customers look beyond simple commodities and basic merchandise, to that which satisfies their wants, needs, and desires. This informed consumer demands selection and quality. To fulfil these expectations, successful retailers place a great emphasis on compelling life-style

presentations of merchandise. Retail is naturally the showplace for new ideas, new concepts and new products. The store environment serves as the selling stage for the latest merchandise offerings of the day.

Today, retailers have discovered the power of attractive displays to bring people into their stores, to interest customers in their merchandise, and to create a desire for the items displayed. Through displays, especially in their store windows, they tell you what they have that is new and different and suggest ways to make you and your home more attractive. All stores, large and small, use displays to catch the attention of passersby and help sell merchandise. The best displays are designed to make you think, to appeal to your emotions, and to persuade you to buy.

Visual display in the 1990s will continue to reflect the social, political, environmental and economic issues of the day. Demographics are changing and effective displays will have to mirror company image and direction while appealing to a specific market niche.

Display has now become a profession, an integral part of the promotion and sale of merchandise. Today, there are many groups of resourceful and imaginative men and women working against deadlines that would defeat less inventive designers. They combine artistic understanding, even genius-with the profit motive and pragmatism of the merchandiser. Our society looks upon them with respect and admiration, and they are amply rewarded, financially and otherwise, for their efforts.

Display personnel maintain a weekly level of excellence that would be hard to equal in other fields, their windows having an esthetic cleverness that seems to reach through the glass to catch the window shopper's attention. It is difficult to estimate the number of employees in the field. Anyone who arranges a few objects in a store window or on a counter may be considered a display person.

**VM IN FASHION PROMOTION**

Throughout the planning of the entire retail process, it is important to keep in mind that a continuing promotional program should be established and executed. The best stores, with the best policies and goods, can succeed only if the public knows the store is there and has a good current idea of what merchandise is available. No area of retailing is more dependent on promotion than fashion. Following are some of the specific objectives of fashion merchandisers and sales personnel:

1. To communicate the store image to its target customers
2. To establish the store as a distinct fashion authority
3. To build long-term customer loyalty
4. To generate interest that will bring a steady flow of regular and new customers to the store.
5. To disseminate timely fashion information and become a source of news of innovations.
6. To remind customers of their desire for new things
7. To encourage customers of their desire for new things.
8. To persuade customers to make purchase decisions.
9. To sell the merchandise to customers
10. To achieve reasonable profit.

Basically, fashion promotion is a process carried out so that people can learn where to purchase the supporting artifacts of life that will make them into the individuals they want to be. Timeliness is the essential ingredient of fashion promotion, accompanied by good taste and high drama. Fashion promotions should be exciting because they depict the newest, the latest, and the very "now" tangibles.

**FUNCTIONS AND PURPOSE MERCHANDISE DISPLAY**

Merchandise display is the arrangement and organisation of display materials and merchandise to produce a

stimulus that leads to the sale of merchandise and services. It attracts the viewer's attention and induces action; it is visual selling and act as a silent salesperson for the organisation. Merchandise displays serve to promote product offerings, inform customers, and contribute to the retailer's image. Successful visual merchandising excites customers and captures their attention.

The outcome of a good display can be discussed as under:

1. It sells products and services
2. Publicizes the business.
3. Lays a foundation for the future sales
4. Builds prestige
5. Educates the public
6. Builds up the goodwill of the public
7. Offers the public useful, practical demonstrations.
8. Familiarizes the public with the operations of the business.
9. Harmonizes business interests with esthetics.

Windows must not only draw people into the store but also support advertising and even attract publicity. The emphasis is on a store's image and not just a look.

### **Rules for Display Planning**

Following the basic rules in display will cause the customers to focus their attention on the merchandise and cause the customers to buy the merchandise. The rules of the display that should be observed in planning a display can be discussed as under:

1. Help the eye in finding the focal point of the display easily.
2. Limit the number of competing elements in the display.

3. Give the display one dominant theme.
4. Use contrast and rhythm to add life to the colours and proportion.
5. Select display props and material having some connection with the exhibited product.
6. Do not allow the display props and materials to take up most of the best space in the window.
7. Avoid anything that conflicts with the sales message.
8. Use colours appropriate to the season.
9. Do not mix the styles.
10. Relax and see if the display sells.

### **Purpose of Display**

The purpose of Display in a store is to attract customers to the store, and ultimately convince them to buy the merchandise.

The main purposes of a display can be discussed as under:

1. Sell by show
2. Encourage the shopper to enter the store
3. Establish, promote and enhance the store's visual image.
4. To enhance the customer's shopping experience
5. Introduce and explain new products
6. Educate customers by answering to their queries regarding the use and accessorisation of a product.

### **Functions of a Display**

Merchandise displays serve to promote product offerings, inform customers, and contribute to the retailer's image. Successful visual merchandising excites customers and captures their attention. The display in a store functions in the following three ways:

1. It presents the selection of merchandise in a manner that will maximise both space and visibility to customers.
2. To allow store sales associates to interact with customers more effectively.
3. To enhance the visual appeal of a product to encourage customer's interest and subsequent purchase.

When the retailers present their merchandise by putting it on a display, their goal is to turn the store traffic into shoppers and shoppers into buyers. Their success depends on the type and quality of display they use.

Sometimes a shopper merely glances at a display in passing. It attracts the eye but does not make a strong impression. A good display, however, will turn many of these "lookers" into stoppers who pause and study the displayed merchandise. In addition, some of the traffic that uses the store as a shortcut to another destination may stop to look at an outstanding display. When deciding on a merchandise presentation that will attract the customer's attention and direct the flow of traffic through the store, you can use these points to enhance your merchandise presentation and increase sales:

1. Create a strong entrance so as to give the customers the opportunity to stop and decide if they want to shop in the store.
2. Allow front-to-back sightlines so as to enable the customers to see the back of the store or the department from the entrance.
3. Take advantage of the highest profile location and place the best selling merchandise in this area.
4. Direct and redirect common customer traffic patterns, which will encourage them to zigzag through the store.

5. Wrap it all up at the cash-wrap stand, which should be located in the front left-hand corner of the store to enable the customer to reach that point after seeing the merchandise.
6. Maintain an active feeling in your store so that the sales associates do not congregate in one location and do not make the store look static.

### TYPES OF DISPLAY

Approaches to merchandise presentation vary according to the type of display- from special, or feature, areas to regular freestanding assortments and wall units. Special display areas include end-of-aisle end caps, windows and point-of-sale and demo areas.

The primary purposes of displays are to present and to promote. A display is at its best when it simply shows a colour, an item, a collection, or just an idea. Types of displays include the following:

1. *One item display:* A one-item display is just the showing and advancement of a single garment or any single item. It features only one piece of merchandise- designer gown, automobile, piece of jewellery etc.
2. *Line-at-goods display:* It is a kind of display in which only one type of merchandise is shown, although they may be in a variety of designs and colours. They could be designed by the same designer, or created with the same fabric or print, or they could all feature a common theme. However, for more effective presentation, and for better comprehension and acceptance by the shopper, there should be some connection or relevance indicated as to why these three or four articles are being shown together.
3. *Related merchandise display:* In this kind of a display, separates, accessories, or any other item that "goes together" are displayed because they are meant to be used together, because they share an idea or theme.

4. *Variety or assortment display*: It is a potpourri of anything and everything. It is a collection of unrelated items that happen to be sold in the same store. It can be work shoes, silk stockings, teakettles, nightgowns etc. It is a melange of odds and ends, a sampling of the merchandise contained within.
5. *Promotional display*: This kind of display advances concept, trend and an item. The basis of this kind of display is often the sales. It has a very low margin of profit and thus needs a large sales volume to exist. These display stores generally advertise prices. They usually feature several items of merchandise, backed up by lighting, signs, props and traditional display techniques.
6. *Institutional display*: This display promotes an idea and not an item. It promotes the institutional services. This display presents the store as member of the community which helps further in building the image of the store. In this kind of display only incidental mention is made of merchandise; service, special features, or facilities of the store are featured.

### Exhibitions

The other types of displays include exhibitions. The various types of displays used in an exhibition are the following:

#### *Permanent Exhibits*

Many museums have permanent exhibits in which paintings, sculpture, and other artwork are lastingly framed, hung, and encased. There is no surprise, novelty, or excitement in an unchanging, permanent display. If the object is world-famous and many persons come especially to see it, then the presentation and the area around the exhibit should be refreshed with a new attitude or look by adding changing floral arrangements, trying period furniture settings, experimenting with different lighting techniques, or using new background colours or texture.

### *Temporary Exhibits*

A temporary exhibit is usually the presentation of an item or items that are on loan for a limited time. The showing schedule is announced and the duration of the showing is advertised, publicised, and anticipated by the public. The limited stay creates necessary impetus to have the public come and see the exhibit while the artwork is on loan.

### *Trade Shows*

Trade shows are commercial ventures wherein a manufacturer or distributor will show a line of merchandise, introduce a new product or an improvement on an existing one, or exhibit for the sake of "goodwill" or company image. The company seeking goodwill may provide, in a setting of plants and seats, an arrangement of a very few choice objects; perhaps, the earliest prototypes of their product or "antique" versions of the products the company is producing today. This is the "soft sell" approach, and such an exhibit would be designed to show the historical perspective of the company and the product rather than to place the emphasis on the current product or line.

Often, trade shows are produced in large exhibition halls in which several hundred exhibitors battle for attention in rather open and exposed areas. The management of the exhibit hall or the organisation sponsoring the show may set restrictions concerning the height of a booth or exhibit, the use of opaque walls, fireproofed materials, lighting equipment, overhead signs, and sound equipment. The union regulations that govern the setting up, lighting, trimming, and the eventual dismantling of the show can be a serious problem for the trade show designer.

### *Travelling Exhibits*

A travelling exhibit is a broad, all-inclusive term for movable or portable displays. A travelling exhibit is

conceived and designed to be moved from one location to another and to be assembled quickly, with few changes and a minimum of professional assistance. Some travelling shows are actually large buses or vans that have been converted into "galleries on wheels." The viewer enters at one end of the vehicle and exits from the other, after having seen the complete show. Other travelling shows are not designed to move "as in their own vehicles. These shows use collapsible panels, frames, or stands that can be reassembled and will adapt to a pre-established plan or pattern in an area of a specific size. Sometimes, the designer may have to supply several alternate arrangements for the panels or frames in order to accommodate variations in floor layouts or space allocations.

### *Outdoor Exhibits*

An outdoor exhibit may take place in a garden, a park, a parking lot, or in the middle of a shopping mall. Depending on the material to be shown, this can be the most challenging type of exhibit. The garden or park setting is ideal for sculpture and other dimensional objects that are not affected by heat, cold, rain, or snow. The natural light and setting can be glorious "props" for these natural but "hard" materials.

### DISPLAY SETTING

In the presentation of any display, there are some basic approaches that any visual merchandiser will make to set the scene for the merchandise or the concept to be sold. These approaches can be summed up as under:

#### *Realistic Setting*

A realistic setting is essentially the depiction of a room, area, or otherwise recognizable locale, reinterpreted in the allotted display area, either in the windows or inside the store. The realistic setting best controlled and most effective

in a fully enclosed display window. Here, the display person can do a miniature stage setting. He or she can simulate depth, dimension, use colour, and light with great effect—all viewed, as planned, from the front, through a large plate-glass window. When realism is the thing, scale is of utmost importance. The display area should not be weighted down with props or elements so large that the scale of the setting shrinks by comparison. A realistic setting requires the careful blending of colour, textures, shapes, and the proper lighting to keep the background at a proper distance.

At certain times and in certain stores, however, a realistic setting can be most effective. Some holidays are just right for a true-to life presentation. For example; on a New Year's Eve, a gala party is the perfect setting for gala clothes, on Christmas morning, mannequins wearing assorted robes and lounge wear might be busily engaged in unwrapping more of the merchandise.

### **Environmental Setting**

This is a merchandise presentation that shows an assortment of various related items in a setting depicting how and where they may eventually be used. In this form of realistic setting, the "background" is actually the "foreground" because the details that make up the realistic set are actually the merchandise being promoted in the display. Everything on display in this setting is for sale in the store.

An example of an environmental setting is a display depicting a corner of a room with a bed, made up with matching sheets, pillow cases, and comforter; a window with coordinated curtains and drapes; and an area rug of the appropriate colour and design. A chair near the bed has a robe casually tossed over it, and there is a pair of slippers on the floor. The setting also includes a bedside table, on which is an arrangement of frames, boxes, a lamp, and a clock. Everything on display in this setting is for sale in the store.

### **Semi-Realistic/ Vignette Setting**

When space and budget do not allow the time or effort for a fully realistic presentation, the display person may opt for the very popular, semi-realistic or "vignette" setting. The visual merchandiser presents the essence, and leaves the rest to the active imagination of the shopper. This is a more effective but simpler approach to merchandise settings.

As examples of displays in a semi-realistic setting: In a predominantly black or dark gray window, imagine a small table covered with a red and white checkered cloth, two bentwood chairs with cane seats, a candle stuck into a straw-encased Chianti bottle already heavy with rivulets of melted wax, some breadsticks in a water tumbler, a brass hat stand, a potted palm. Couldn't this be any romantic, old-fashioned, neighbourhood, Italian restaurant? Or, simply, a palm tree dripping heavy with green leaves, a mound of sand, an open, boldly striped beach umbrella—anybody would know it was some faraway island in the sun. Who needs to look beyond this into the nebulous, no-colour, no-detail background? On ledges, in island displays, and in store windows with open backs, a semi-realistic setting works most effectively.

### **Fantasy Setting**

A fantasy setting can be as detailed or as suggestive as the display person, budget, and time permit. It is creative, requires thought, energy, and lots of planning, but it can be very rewarding. It can be surrealistic or just completely off-the wall.

### **Abstract Setting**

An abstract setting might seem as if it would be the easiest to do, but it is often the most difficult. The least amount of display often makes the biggest statement. In an abstract setting, the merchandise is the dominant feature and the setting supports and reinforces the message, often

subliminally. The abstract setting is predominantly an arrangement of lines and shapes, panels, cubes, cylinders, triangles, curves, arcs, and circles. The design does not really represent or look like anything in particular, but it does evoke certain responses from the viewer.

### **Buildup Display**

There is a vast difference between creating a one-item or line-of goods display and a mass display of a variety of items "related" only in use, material, colour, or place of origin. To display different dinnerware place settings, one is dealing with a group of objects that are similar in material, construction, and use, but are decidedly different in appearance. It is the difference in pattern, colour, shape, and size that will make one design of dinnerware more attractive to a customer than another.

In doing a display of five, six, or more place settings or groupings of different china patterns, certain methods of presentation are more effective than others. The overall display must be balanced and easy to look at. There has to be a movement from grouping to grouping or item to item. Each group or item should be able to be viewed as a separate entity, somehow set apart from the others.

If, as in the case of the china, the display person is working with objects of the same general size or weight, he or she might use assorted size cubes or cylinders clustered together to create a buildup display. It is easy for the viewer's eye to travel upward, making a stop at each level to absorb what is being shown before moving on to the next level and the next showing. Thus, each group is separate and apart in space. Each group can be dominant as the viewer's eye climbs the setup. The topmost group, by its position, could be assumed to be the best or the most attractive-the most desirable. Therefore, if the display person wants to make all the items equally "best" or "beautiful," the top step could be reserved for a plant, a vase filled with flowers, or any decorative or

related item or prop. The buildup itself can be a series of forms of different sizes, arranged in a straight line with each cube or cylinder butting up to the next tallest one, but all flush in front. For the sake of interest and effect, there can be a combination of bigger steps and smaller steps. In a formal or traditional arrangement, however, each step would be exactly the same increment of height until the next plateau is reached. Where there is sufficient depth in which to set up the display, the buildups can go from front to back as well as from side to side. It would be like creating a pyramid with risers or cubes building up from either end while, at the same time, building from a low point out in front to the high point in the centre.

When displaying merchandise that is related, but of different sizes and shapes, the step or pyramid buildup will work, but it requires a very deft feel for balance, especially asymmetrical balance. It is now a matter of building up one riser with an object on it while balancing it with another riser that has a different-sized object displayed on it. The overall height and look of the riser plus the merchandise must be visually weighted against the other riser and merchandise. It might, therefore require a lower platform or elevation to hold a tall vase, for example, if it is to balance with a low, squat bowl on a taller riser. This asymmetrical buildup must be arranged so that the viewer's eye will still move comfortably, through the various levels, to the top.

#### DISPLAY STORAGE

The store's fashion philosophy is evident in its displays, its merchandise selection, its interior design, and even its housekeeping. When a customer walks into a store the implicit message one receives from the visual merchandising is "We are young and the go—we are in the fashion vanguard." The message is delivered by exploiting our emotions and our senses through three-dimensional exterior and interior displays. Most of us are

unaware that experienced marketing professionals orchestrate the influences on our shopping behaviour. This does not necessarily mean that the customer is totally devoid will. The finest visual presentation on earth cannot create loyal customers if quality and value are missing.

### **Window Displays**

If you measure your attention span while standing before a window, you will find that it is only a matter of seconds before you move on or enter the store just as, when you select a TV channel, if your interest is not engaged in those first crucial moments, you switch channels. The object of the window is to motivate you toward a closer look at the merchandise and to plant the yearning to buy. The window tells a story that is constructed much like a news article in that it employs the age-old five Ws—who, what, why, when, where. It says, here is the latest fashion; this is the way to put it together; this is where and when to wear the look; this is the image that identifies your image.

All of this comes into play in window arrangements, from the simplest to the most complex. But in addition to being informational, windows have become an art form, which at best reach the level of theatre or museum entertainment. Numbers of noted painters and sculptors have been fascinated with window display as a medium for their talents. Whether the window is fashion-oriented, institutional, or promotional in nature, it is most successful when it adheres to a dominant theme. These are some of the treatments that may be used:

- A single mannequin against seamless paper
- A realistic setting peopled with a group of mannequins in action
- A theatrical setting, an injection of fantasy and drama
- Straight merchandise, glamorised with props rather than mannequins

- Animation, as in holiday windows that draw crowds of viewers
- Use of sculpture, fine painting reproductions, or art objects, for a touch of class
- Media tie-ins with current films, stars, or best-selling books In most major urban areas, where pedestrian traffic is heavy, retail windows carry great weight.

In suburban branch stores or malls where customers must enter the store through underground parking areas or mall entrances, window space is usually limited. Here, exterior display takes a back seat to interior display. Windows are planned to integrate with their entire surroundings. The window designer creates a "whole" rather than a fragment, taking into consideration the building facade, the street and its people, and the relationships of perspective, colour harmonies, lighting, and viewing angle.

Fashion is a fast-turn business whose tempo can be unpredictable when quite suddenly a trend emerges and sweeps over a region, quite oblivious to seasonal planning. The fashion-aware public can easily size up a window that is out of pace with the times. The fashion store must be prepared to "turn on a dime." Window displays stale quickly to the eyes of frequent shoppers and require frequent changes, usually once a week.

### *Creating Effective Store Window Displays*

Creative window displays are an ideal way to set the business of retailers apart from the competition. Windows are the billboards of the store, they're a place to emphasise their unique identity, advertise merchandise and catch the attention of shoppers. So how to make a traffic-stopping display? The possible subjects are endless, but the key is to focus on a product or theme, not simply exhibit a collection of items. Following basic design principles will enhance the store displays.

- Keep it simple. Don't try to put everything at once.
- Keep it clean.
- Change displays frequently to keep the look fresh.
- Bright lighting is crucial, both during the day and at night.
- Use lights to highlight individual items or signs.
- Use repetition of shapes and colours to attract attention.
- Cluster items in groups of three or five. Odd numbers are most pleasing to the eye.
- Vary height and depth of items to carry the eye throughout the display. A pyramid or triangle is a pleasing shape.
- Use motion to catch the customer's eye.
- Use light, bright colours.
- Continue the theme of the window display with other displays inside the store.

### *Interior Displays*

As the customer enters the store, displays continue to beat out the fashion message. While windows are designed to stop traffic, interior displays are designed to guide the shopper to the point of sale. There are a number of ways for doing so, by way of floor and shop displays, point-of-sale displays, signs, and fixturing.

Interior display is an integral part of the architectural design and floor plan of the store. Display combines with traffic patterns to guide the customer through the store. Visual merchandising enables the customer to select merchandise easily from what might otherwise be a jumble of goods.

A window is rather like a tableau. It has boundaries within which the designer creates. The interior display designer is not locked into a static area but must utilise

existing space directly on the selling floor at such strategic spots as the entrance, escalator and elevator banks, and stairways where traffic is heaviest.

Interior displays must also be versatile, easily assembled and disassembled. The designer avoids crowding or positioning that may create a safety hazard. Interiors are changed often in order to continually stimulate sales. If necessary, interior displays are changed as often as twice a week, particularly in areas where sales are sluggish. This may entail moving new merchandise forward, rearranging displays to give merchandise a fresh look, or placing other merchandise at the rear of the department. Mannequins are a mainstay of fashion displays. Whether they are futuristic or realistic, shoppers identify well with the dressed human form. Most large stores invest in mannequins for interior and window display purposes.

Displays inside the store should relate to the displays seen in the windows. Good display effects should continue inside the store to move customer traffic through the store. The aisles, the signs that direct the customer, the walls, and the interior displays are most important to the total visual concept of the store. Each department, shelf, counter, ledge, case, and furnishing in addition to the display areas requires analysis in executing display techniques.

The furnishings of the store should be attractive and placed so as to enhance the visual impact on the customer. There should be updating and improvements in fixtures to avoid a stagnant, dated effect. For example, the seasons of the year usually dictate visual changes. An island display is used at the entrance to a department within the store and is viewable from all sides. It usually is on a raised platform or uses a different flooring material such as an area rug. An island display should present a special fashion story. It may carry a storewide or departmental theme. Most importantly, the merchandise used in the display should be available nearby for the display to be

effective. Clear views of island displays are an important consideration.

Ledges are usually the top spaces of a backup storage unit behind a selling counter or a shelf placed above presentations of merchandise. In large stores, the main floor may have such high ceilings that mannequin groups or other props are usable. In elevated ledge locations above the floor traffic, attractive displays provide a cheerful spectacle. Extra lighting is used to focus on the merchandise.

The walls in a store can be an excellent area for display. A flat wall can use fixtures for hanging merchandise. If the top rows are face-outs as opposed to straight rods, productive selling displays result. A flat wall with shelves for folded merchandise can be used for such items as shirts, sweaters, table linens, and dishes. Colour arrangements can be the key to attracting the customer into the department. The end of a wall that extends toward an aisle can also be used to create a highly visible display area using at-wall extension.

Display cubes are available in various sizes and of various materials. They are often used in wide aisles to gain attention for a special product or adjacent to the aisle to draw the customer into the department. Cubes can show any goods, from cosmetics to expensive art objects. Shoe departments use them in clusters to show the shoe selection. House ware departments employ them to display and also to hold stock.

### *Isolated Displays*

Isolated displays are less frequently used now than in the past, because they require too much time and expensive props such as mannequins. They are often far from the merchandise to which they relate. The customer is stimulated by the display and should have immediate access to the merchandise. For example, when a red dress is on a mannequin, a T-stand should be placed nearby with

other sizes of the red dress. Such a display catches the eye of potential customers passing by and draws them into the department. When a display is located near the merchandise, the natural traffic flow is movement from the mannequin to the fixture, which encourages customers to touch, feel, and possibly try on the garments. The idea is to make it easy for the customer to see the new merchandise and then easily find it without the help of a salesperson. The display and the fixture that holds the garments can often presell merchandise.

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## **Fashion Forecasting**

Forecasting plays a vital role in the fashion industry and in brand development. The business is continually looking ahead and fashion forecasting is about identifying, evaluating and predicting growth in the industry's target markets, as well as developing brands through promotion and retail. Forecasting skills are used in a diverse range of activities, such as seasonal change, new or re-launched products, re-packaging, display, garment agencies or store concessions. It will enable you to influence the future direction of fashion and style based product, through your understanding of the mechanics of the fashion cycle and its application to the fashion industry. It will introduce you to fashion forecasting and its application to the creative design industries.

Forecasting is more than just attending runway shows and picking out potential trends that can be knocked off at lower prices. It is a process that spans shifts in colour and styles, changes in lifestyles and buying patterns, and different ways of doing business. What appears to be near random activity is in fact a process of negotiation between the fashion industry and the consumer and between the various segments in the supply side chain.

The decade of the 1990s is instructive in terms of fashion forecasting. Some of the change that rocked the apparel business in the decade can be traced to cultural

shifts such as women entering the workforce, becoming time pressured, and reprioritising their interests; other changes to the values and preferences of the baby boom generation played out in consumer behaviour. Social rules governing appropriate attire had begun breaking down in the late 1960s, but the process continued until casual looks became acceptable for almost all occasions. At times, economic bumps and international turmoil played a part in dampening apparel spending. The industry, attempting to reactivate demand, speeded up the flow of "new looks" into mass fashion and offered "options" in the service of individuality.

Increased coverage of "soft" news by the press drew attention to runway extremes and unleashed general criticism of the fashion system. Consumers became confused by mixed signals and disillusioned with the style guidance of designers, fashion journalists, and the stores, voting with their dollars to reject highly touted looks. Some consumers began to play it safe by choosing classic clothes in black and other basic colours. Even more disturbing for the industry was the finding by a research firm that the core market segment for apparel-women between 25 and 44-held back on buying clothes beginning in 1996 while diverting spending to travel, fitness, and other leisure activities.

With seasonal fashion dimming as a driver in refurbishing wardrobes, consumers concentrated on getting the best price, even if it meant waiting until markdowns. These changes boosted the success of some parts of the fashion industry. The Gap and active wear manufacturers soared on the casual trend and the relaxation of social regulations regarding appropriateness. The changes in consumer behaviour and the effect of the economy on consumer confidence magnified any missteps by the fashion industry, leaving some to rethink, reorganise, and relaunch. All of these changes relate to some aspect of forecasting-style evolution, cultural change, consumer

preference research, competitive analysis, and trend forecasting.

Forecasting professionals were very active during the decade of the 1990s as prominent advisors to the industry. Marketing consultants counselled giving women what they wanted, a strategy that led to the boom in selling fashion basics. When that boom was over, the consultants got some of the blame. Critics pointed out that the bare-all slip dress could never have come from a focus group. Melrose Place revived the miniskirt success suit when some trend forecasters called the category dead. Consultants seemed to be missing the vital quality of novelty and vividness that makes fashion cool and hot at the same time. The forecaster walks the same difficult line as the designers, manufacturers, and retailers-the line between fashionable and functional, between too funky to be wearable and too boring to be fun.

Fashion forecasting has been compared to chasing the future with a butterfly net. But spotting trends is not that difficult for people who immerse themselves in popular culture and trade news. Forecasters pluck emerging trends out of public information by becoming sensitive to directional signals that others miss. Faith Popcorn, one of the forecasters most often quoted in the media, calls this "brailing the culture". Looking for the new, the fresh, the innovative, and then analysing the whys behind it.

Forecasters vary in the methods they use, but all are looking for an apparatus that helps them predict the mood, behaviour, and buying habits of the consumer. Because trends signal the emerging needs, wants, and aspirations of the consumer, canny manufacturers and retailers capitalise on their potential for turning a profit. Forecasting is not magic practised by a talented few with a gift of seeing the future. It is a creative process that can be understood, practised, and applied by anyone who has been introduced to the tools. A professional does not proceed by rule of thumb or trial and error but by mastery

of the theory and practice of the field. Forecasting provides a way for executives to expand their thinking about change, anticipate the future, and project the likely outcomes.

Executives use forecasting as input for planning. Marketing managers position products in the marketplace using short- and long-term forecasts. Planners of competitive strategies use forecasting techniques to look at market share and the position of competitors in the marketplace. Product developers, merchandisers, and production managers use the short-term trend forecasts of colour, textiles, and style direction to shape collections.

### **VISUALISATION AND FORECASTING**

In the narrowest sense, forecasting attempts to project past trends into the future. A trend is a transitory increase or decrease. Some trends have lasted for millennia-human population growth, for example. But all trends have the potential to eventually slow down and decline. Visualisation helps forecasters understand and communicate the movement of fashion and project future directions.

Fashion trends are usually classified by duration and penetration, visualised as curves with time on the bottom axis and consumer adoption rates on the vertical axis. In this way it is easy to show the difference between the shortest trends, called fads, and the longest, called classics. In the same way, forecasters visualise fashion cycles and waves. Cycles have a fixed, regular periodicity. Economic and business cycles have been proposed but are considered controversial.

Variations in the length and depth of "cycles" make the term a misnomer. No fixed, regularly recurring cycles have been identified, and used to accurately predict the next cycle in business or fashion. Instead, it is more accurate to call recurring patterns a long wave

phenomenon. Long wave refers to any entity with movement that rises and falls with differences in duration and magnitude, velocity, and momentum across periods. This wave model is reflective of movement in social spheres, including fashion.

#### DEVELOPING A FORECAST

Forecasting consists of tools and techniques applied systematically. Just as important are human judgment and interpretation. The steps in developing a forecast are:

- *Step 1:* Identify the basic facts about past trends and forecasts.
- *Step 2:* Determine the causes of change in the past.
- *Step 3:* Determine the differences between past forecasts and actual behaviour.
- *Step 4:* Determine the factors likely to affect trends in the future.
- *Step 5:* Apply forecasting tools and techniques, paying attention to issues of accuracy and reliability.
- *Step 6:* Follow the forecast continually to determine reasons for significant deviations from expectations.
- *Step 7:* Revise the forecast when necessary.

A trend forecast should identify the source, fundamental mechanism, direction, and tempo of the trend. The most valuable currencies in today's competitive climate are information and learning. Information is a business asset that can be managed like any other. Executive decisions are enhanced in an information-rich environment. However, obtaining information is only the first step in the process of organising, analysing, understanding, and learning from it. Information is easy to find but difficult to sift, frame, and integrate so that learning can take place. Forecasting is the process that translates information into a form that allows learning to take place.

**FORECASTING IN APPAREL PLANNING**

Short- and long-term forecasting has a different time horizon within the manufacturing cycle. The lynch pin in apparel planning and scheduling is the manufacturer. The forecast is a rolling one that begins with a long-term forecast—in this context a forecast is usually for 12 months but can be as short as 6 months to as long as 18 months. The forecast is developed by the sales and merchandising managers using input from retailers, marketing representatives, sales history analysis and market research.

This working, long-term forecast mirrors the manufacturer's business expectations in terms of lines and styles to be produced each month. The short-term forecast includes both basic and fashion goods detailed down to weekly production by style, colour, and size. Proper forecasting assures the timely delivery of merchandise to the retailer.

The apparel manufacturer's long-term forecast traces the planning and scheduling process forward to the retailer because it is prepared before orders are received. Orders are shown as input to the short-term forecasts. The quality of the long-term forecast can be measured by comparing expected orders with orders received.

Tracing the planning and scheduling process backward, forecasts and orders feed back to the textile manufacturer. A process very similar to the one in apparel manufacturing occurs at the textile manufacturing level. The time period from initial forecast to delivery of finished piece goods to the apparel manufacturer is between 6 and 16 months. Tracing the process backward one more step leads to the yarn and fiber manufacturers, where a similar forecasting process takes place.

Industry fashion trends enter the model as input for the retailers' decisions and as part of planning at the other stages of apparel, textile, yarn, and fiber manufacturing. Colour forecasting is typically done 20 to 24 months ahead

of the target-selling season. Textile development is typically done 12 to 24 months prior to the target-selling season. International fabric fairs show new trends in fabrics one year ahead of the target-selling season. All these forecasting activities are aimed at having the right product at the right time to meet customer demand.

### COLOUR FORECASTING

Colour decisions begin early in the product development cycle. For designers a new collection begins with the selection of a colour palette. From that first step, it will be from six months to nearly one year before those colours appear as a coordinated collection on the runway or in the showroom. The initial decision is critical to success because the eight to ten selected colours signal the personality of the collection. The colour story will be combined into prints, yarn-dyed fabrics, and solids and coordinated across jackets, tops, skirts, pants and dresses into a collection with perhaps 200 separate pieces.

### Colour in Marketing

Marketing fashion means positioning the product in the marketplace. Colour plays a major part in positioning apparel products by attracting attention, establishing the image of the product and the brand, and evoking symbolic associations. Marketers harness the psychological power of colours to communicate with consumers through advertising, brand logos, packaging, and product colours. A consumer's first impression of a new product is largely mediated by the colour.

Some fashion companies have signature colour ranges think of Calvin Klein's muted neutrals and Tommy Hilfiger's bold primary colours-but others follow seasonal colour trends. The selling power of colour can be traced to two intertwined sources emotional imagery associated with various hues and the desire for individuality and personal expression through colour selection. A company's

identity package often includes a colour or colour combination that is immediately recognizable to consumers.

This company symbolism will appear in advertising and on logos and packaging. However, colour is only one element in establishing this identity. Most people cannot remember a specific colour for more than a few seconds or pick out a particular shade when presented with several alternatives. The identity of a company and its logo is achieved through the combination of colour, typography, proportions, and contrasts. What seems to be a simple problem-pair the right colour, one with the right associations, with the right product-is far from simple.

Choosing colours to symbolise a company can be risky because colour connotations can change with time-white lettering on black was considered elegant until used by supermarkets to advertise generic brands. The look later regained its cachet when it was used in high-fashion apparel advertising. The solution of this problem is increasingly important for multinational companies where instant recognition worldwide translates into profits. In a 1995 landmark decision, the Supreme Court held that colour is such a potent brand identifier that a particular shade is a legally defensible trademark.

Colour also tends to identify the target market-for example, bold primaries for children's products and trendy or whimsical colours to appeal to teens. With influences from television, toy marketing, and computers, children's preferences tend toward bright colours that adults avoid. In the 1990s, children developed a love for neon colours, especially green and yellow. This segmentation by colour preferences makes it important for product developers and marketers to carefully observe the target market-watch consumers in their natural habitat, read what they read, listen to their music, watch their movies, and research their preferences.

## **Psychology of Colours**

Colours can represent experiences, emotions, status, and other types of information that are difficult to convey in written or spoken language. Colour symbols enter language and appear in pictures and poetry as metaphors—for example, the connection between good fortune and gold at the end of the rainbow.

Colour communicates emotionally by calling up all kinds of associations of which people are only fleetingly aware. Some colour symbols are part of a kind of primordial memory. Red signals arousal because it is associated with blood and fire signals of danger. Even overlaid with the trappings of modern life, red still gets our attention by evoking ancient responses.

Colour can be used for sociological or political reasons as in tribal identification, gang colours, and soldiers' uniforms. Individual colours have symbolic meanings that evolve over time. Human response to colours can be traced to physiological reactions. Warm colours are associated with activity, cool colours with passivity. Psychologists have recorded immediate and measurable reactions to colour, but the total effect depends on the duration of the stimulus. Exposure to red initially results in arousal, but the effect dissipates with continuous exposure over time. Another aspect mitigating the psychological impact of colour is the strength of the colour—an electric green is more stimulating than a weak, dull red.

Besides human reaction to colour, psychologists are interested in the formation of colour preferences. In 1941, Eysenck published a study showing a consistent order of colour preferences in adults: the first choice was blue, followed by red, green, purple, yellow, and orange. Later research and preference surveys have tended to support the finding of a universal scale of colour with a possible biological basis.

Some colour theorists argue that colour transcends cultural and geographic boundaries. To back up this "universalist" view, studies have shown that black, white, and red evoke similar responses in many parts of the world. American researchers compared colour words in 90 languages and discovered broad, consistent rules in the cultural evolution of colour. They found that the most primitive cultures distinguish only between black and white; if a third colour is used, it is always red; the next two colours are yellow and green; then blue is added, followed by all the subtler distinctions. Colours "relativists" argue for a local bias in the development of colour terminology.

They find that regional and environmental conditions play a major role, citing the observation that Eskimos have more words for white because it is so predominate in their worldview. Polly Hope, an artist and writer who travels the world in her work, has observed similar phenomenon-colours as a representation of a country's personality. She finds a distinctive "colour conception of a place" that results from the combination of the natural environment and the indigenous culture. As examples she cites the earth colours, silver, and turquoise of the American Southwest and the lapis blue, gray-green of cacti, and reds and yellows of folk costumes as symbolic of Mexico.

Some colour associations combine the universalist and relativist view: blue as a protective colour to ward off evil spirits can be found in cultures as disparate as the Middle East and Native Americans in the Southwest. With increasing global communication and trade, there will be an inevitable increase in the exchange of colour concepts across territorial and cultural boundaries. The colour forecaster must constantly investigate the cultural symbolism and the cross-cultural implications of colour.

Colour preferences can arise from personal experiences- for example, a person's positive or negative reaction to the colours parents chose for them as children. Colour

consultants cannot account for these individual differences. Instead they concentrate on broad cultural preferences. In surveys of colour preferences among American consumers, mid-range blue is consistently selected as the favourite colour. However, even strong cultural preferences can be overtaken by the mood of the times.

Green became important in all categories of products from T-shirts to automobiles to kitchen appliances when consumers became acutely aware of environmental issues in the early 1990s. Blue reasserted dominance by the 1997/1998 Roper/Pantone Consumer Colour Preference Study when 35 percent of participants chose blue as their favourite colour, and green fell to second place. This swing in preference supports the view that there is a collective colour preference underlying the surface of seasonal fashion change.

Fashion colour symbols arise from cultural norms that have consistent meaning over time—red nails and red lips are powerful sexual signals in all decades beginning in the 1920s. When dye technology permitted making only a few colours, fashion colours persisted for decades and developed deep symbolic associations.

Now it is possible to dye any colour, and the multiplicity of colours leads to seasonal change and colour meanings that are more acceptable. In today's complex colour landscape a single colour can have multiple symbolic meanings. In a 1995 survey, the colour black signified mystery to 30 percent and power to 27 percent of participants, 23 percent considered it masculine, 20 percent found it depressing, and 18 percent considered it a conservative colour. Some colours declassify a product, extending its appeal to a broad audience; others classify a product as belonging to a specific type of consumer or socioeconomic level. Sensitivity to these multiple meanings enables the colour forecaster to target the right colours to the right consumer segment.

As predictors of colour preference, categories such as age, ethnicity, income, and gender play a part, but the preference segments are more complex than simple demographics. The Cooper Marketing Group now divides consumers into three categories: colour forwards, colour prudent, and colour loyal. The colour-forward consumer enjoys being the first to try a new colour but may shop for colour ideas at both discounters and upscale department stores.

The colour prudents are mainstream consumers and wait until a colour has more widespread acceptance before buying it. The colour loyals play it safe with colour, sticking with classic blue or gray instead of choosing fashion colours. Categories like these mirror the bell curve of consumer acceptance from the relatively few innovators and early adopters through mass acceptance to the fashion laggards and apply it to acceptance of colour. Such mental images can help colour forecasters justify their colour choices and clarify the fit between colour selection, product category, and consumer target.

### **Forecasting with Colour Cycles**

When applying a colour theory, the colour forecaster has to take into account the consumer type and membership in a cultural group. Lifestyles, values, and attitudes all play a part in acceptance or rejection of collective colour directions. Although mass media smoothes and integrates individual and cultural tendencies, differences between segments remain. Additionally, some consumers are early adopters of fashion change, whereas other more traditional consumers will adhere to traditional colours as colour cycles come and go. Applying a colour cycle theory takes insight and experience.

Complicating the process further, a colour forecaster has more than one colour cycle theory to consider. Using the idea that colour cycles through all the phases from full primary hues to mixes to neutrals, the forecaster in the late

1990s would predict "a pause in neutral" prior to a rediscovery of full primary hues at the beginning of the new millennium. Everett Brown, who introduced the Colour Key Program for apparel and paint selection, identified a cycle of. Approximately seven years during which the pendulum swings between warm-toned and cool-toned colours. Using that theory, a colour forecaster in the late 1990s would predict a shift from the orange-based earthy tones of 1998 to "more celestial colours" in cool tones for the turn of the millennium. Which is correct? Perhaps both. Today's colour forecasts offer a proliferation of shades, and the colour forecaster's job is to match colour with consumer segments.

Besides the cycles based on hue, intensity, and colour temperature, there are other identifiable cycles. Some continuity is visible regardless of trends: nautical red, white, and blue appears in some form every spring; russets and tartan plaids every autumn. During the 20th century the consumer has undergone a colour education that has changed visual perceptions. Still, the basic mechanism of colour cycles serves the colour forecaster well.

A new colour direction is usually introduced first by a high-profile industry and promoted as a theme. Based on mass marketing, other industries adapt the theme to fit their customers and promote the same set of colours. After a few years, the colour direction becomes established; the consumer is ready for a change, and the cycle begins again. While a colour trend remains in place, the theme used to promote it evolves-Southwestern colours transmute into a Mediterranean palette and then continue in an Adirondack lodge colour story. The colours themselves evolve from season to season. For the forecaster, it is important to monitor consumer response and work through the colour families from level to level from red to a rosy tone to a coral.

### **Colour Research**

Cycles in colour preferences apply across product categories to both hard goods such as automobiles and appliances and soft goods such as apparel and household linens. The timelines differ for each industry because the consumer's replacement rates differ. Industrial products may lag two to five years behind fashion shades and require a shade modification, but if a colour is popular in fashion, it is likely to end up on small appliances and other utilitarian products. People buy clothes more often than automobiles; they redecorate their image more often than their interior spaces. The colours for fashion can show a marked change every two years but the replacement cycle for interior design is between seven and twelve years.

Even to a colour consultant specialising in a particular industry, the entire world of colour choices is important. Clothing designers look for inspiration in the decorative arts: interior design, architecture, and furniture design. Home fashion designers look for inspiration from apparel and accessories. There is growing cross-pollination between industries regarding colour evolution.

### ***Colour Relationships across Product Categories***

Where does a colour trend start? That is a controversial question, and the answer depends on whom you ask and in what decade. In the past, some experts claimed that new trends first show up in the array of colours offered by paint manufacturers. Others believed that trends started in the automotive industry because autos require a longer product development cycle, and that industry is particularly sensitive to advances in colour technologies. Still others expect new colour trends to originate in the area of interiors. Today most agree that colour trends start with women's fashions. Whatever might have been the case in the past; Jean-Philippe Lenclos's international survey of colour detected a fusing of colour fashion across product categories in the mid-1970s. Until that time, colour cycles

had moved at different speeds in different industries. Subsequently, there was more unification of colour trends across product categories.

### *Colour in Cars*

Buying a T-shirt or a pillow or a tube of lipstick may cost a few dollars; buying a car represents a major investment. Still, the power of colour as a marketing tool applies across categories. Styling in cars follows the same societal trends as other products. The confident-looking 1980s cars had a straight-cut look that was replaced in the early 1990s by a sturdy, rounded, eggshaped silhouette, a sensibility that matched an era nervous about economic conditions and environmental issues.

In the colour explosion of the mid-1950s, the Chrysler Corporation offered a choice of 58 exterior colours either alone or in 86 two-tone combinations. Today, we have more colour choices than in the earliest era of the automobile but less than in the 1950s. Studies by DuPont between 1959 and 1971 showed fluctuations in some car colours, relatively stable popularity in others, and a link between popular clothing colours and automobile colours. By the mid-1990s, dark forest green was the most popular car colour after an absence of 15 years, and purple was the new colour trend. Just as in fashion, colour and price are linked. The colour image must match the car image—a \$50,000 car must look like money; what works for a Mercedes will not work for a sport utility vehicle. As paint technology continues to develop, colourists predict that post millennium cars will feature copper, bronze, and pearlescent finishes that will reflect multiple shades, depending on the lighting.

### *Colour in Cosmetics*

Cosmetic colours are the most closely allied to fashion apparel. Fashion periods tend to take on an identifying image, and these changes are paralleled by cosmetics.

When sliding-tube lipsticks appeared in the 1920s, the flapper had a convenient way to paint her lips bright red. In the 1930s, emphasis shifted to the eyes with the popularity of pale skin and unrouged cheeks. American actresses in the 1940s popularised the image of bright red lips again and added coloured nails. The attention stayed on the mouth until the 1960s, when it shifted again to the eyes. Hippie looks in the 1970s shifted tastes toward the natural look and more beige and earth-toned cosmetic colours. Disco dancing sparked a glittery dress-up phase with eye shadows in metallic colours.

By the 1990s, cosmetic companies had begun to differentiate themselves based on their approach to colour—some focusing on following the fashion colours of the runway, some on colours keyed to a person's skin, hair, and eye colour. Major cosmetics companies selling in department stores usually have a core group of perennial sellers that stay in the line for years, a smaller group of colours that follow colour trends, and seasonal promotion of a fashion colour story.

Also in the 1990s, professional makeup artists, models, and photographers began to have more influence on trends in cosmetics. Some makeup artists started cosmetic companies based on selling professional lines to the public. In the fall of 1998, Max Factor used a tie-in promotion with the blockbuster film *Titanic* and launched a Tina Earnshaw Colour Collection named for the makeup artist who received an Oscar nomination for her work on the film.

Mass lines, those selling in discount stores and drugstores, may pursue a dual strategy: lagging slightly behind the colour trends to attract less fashion driven customers, and including extreme fashion shades for the fashion forward customer seeking to satisfy the whim for a trendier image at a moderate price. Cosmetics companies employ colour marketers to chart the direction for their lines. These executives research colour trends just as specialists in other product categories do: they travel,

observe, sample popular culture, analyse trends in lifestyles, and track shifts in consumers' tastes. Their colour forecast dovetails with the forecast in the apparel industry. In the fall 1998 season, colour cosmetics lines featured plums and purples—the same colours highlighted by David Wolfe in an apparel forecast for the National Retail Federation that same year. Such a strong purple message recalls the role of purple as an intermediary stage between achromatic and chromatic phases, signalling the beginning of a new colour cycle.

### *Colour in Interiors*

Trends in interior design are defined by a lifestyle concept and its associated colours—think of the long-running popularity of the country look and its evolving palette. Such concepts are said to last from 7 to 15 years. Like the fashion industry, manufacturers and retailers work together closely on developing new looks and directions. Also like fashion, interior spaces reflect the personality and preferences of the individual owners, and colour is a primary purchasing consideration. Because the investment in furnishings is generally more than in apparel, consumers feel more restraint in deciding on a change, and even when they decide to change, their choices tend to be rather conservative. Creative teams manage change by experimenting with style innovations and building on those with profit potential.

### *Sources for Colour Ideas*

Colour forecasters are like finely calibrated instruments—they register subtle shifts in consumer preferences, sense when the time is right for a new direction, and pick up directional cues from myriad sources. Colour forecasts reflect the mood of the times, both the present and the hints about the future. To forecast colour direction the forecaster must constantly participate in the events that shape the cultural moment and monitor the running

commentary of the media. Together the events and media shape the consumer's preferences and mood. Colour stylists look for ideas on the East and West Coasts of the United States, in Europe, and in Asia. Colourists have an eye for the new, the novel, the unique, and the fresh combination.

Sources include:

- Social, economic, and political issues significant enough to affect the thinking, mood, and actions of people.
- Magazines covering fashion, interiors, and entertainment, including those published in Europe.
- Newspapers, especially features on lifestyle, style, travel, entertainment, and business.
- Runways in the fashion capitals of Paris, Milan, London, and New York.
- Trade shows and exhibitions.
- The lifestyles of highly visible celebrities in entertainment and prominent role models from other fields.
- Colour schemes featured in films, especially major films with exotic locales, set in stylish time periods, or featuring distinctive costuming.
- Styles worn by stars of popular television shows.
- The world of music through the club scene, music videos, dance crazes, and the style leadership of stars.
- Theatre, especially productions in which the costuming, set design, or choreography are important elements.
- Travel destinations that merge new sights and experiences or involve new concepts in the hospitality industry.
- Street fashion in urban areas, districts associated with the arts, and emerging shopping scenes with small, unique, independent businesses.

- Flea markets in Paris and London and other inspiring open markets that reflect the character of a specific location and culture.
- Decorator houses and other showcases for trends in interior design and architecture.
- Museum shows focusing on artists, collections, archeological finds, photographers, or artisans, especially those with broad media coverage.
- Museum shows, auctions, and sales featuring vintage fashion and famous designers.
- Auctions, especially those featuring the possessions of famous people.
- Revival of interest in historic periods, especially the architecture, art, and signature looks of those eras.
- Fads and fashions in cuisine including shopping food markets for food products, produce, and flowers characteristic of the locale.
- Toys, games, and amusements for different age groups.
- New electronic gadgets, computer applications, and breakthrough technologies.
- Industrial design, graphic design, and package design because these fields often foreshadow new visual directions.

Consider it a strong directional signal when the same trend is visible during the same time period from multiple sources. In such cases style arbiters across industries reinforce the messages, widen the scope, and expand the coverage.

The colour forecaster is always looking for clues to the next new colour, the adaptation of basic colours, themes, and directions for colour stories. There are some calendar dates that are especially important: the seasonal runway shows and key trade shows. An important trade shows for

colour forecasters is *Premiere Vision*, an international textile industry fair, held annually in Paris.

Fabric mills make presentations concerning the coming season, show organisers offer their own forecast, and colour forecasts by European consultants are on display in the Hall of Prediction. This show is the crossroads for designers, manufacturers, and forecasters to see the latest in textile developments—a place for scouting and networking. Forecasters combine trips to the runway shows and fabric fairs with shopping the trendiest boutiques and watching street fashion.

The forecaster returns from trips with many new ideas, some of which have to be modified for the American market. In general, European colours are more complex, darker, and more neutral than the cleaner, brighter colours preferred by American consumers.

Two organising principles help to coordinate the new finds: the colour cycle as it has evolved over the previous seasons, and the curve presenting diffusion of innovation across consumer segments. Usually the forecaster adds the new finds to an existing library of ideas. The editing process begins by pinning colour samples to a board to study relationships and colour groups. At first this process involves a free, open reaction to the colours. As the editing process continues, the forecaster consults the work of previous seasons to maintain the visual rhythm of colour evolution. At some point in the process, the forecaster begins to define the themes and concepts that link the colours in a colour story. In the final editing stage, the forecaster makes modifications and adjustments based on the 'clients' target consumer, product category, and price point. The final colour board for the client provides overall colour direction, colour stories coordinated around visual themes, and specific colour selection.

Colour forecasters are trained experts who can look at colours, assess what they see, and express the qualities of each colour in terms of hue, value, and saturation. They

understand not only the individual colours but also the effect of colours in combination. Because research shows clear patterns of consumer preference linked to value, chroma, and colour temperature, forecasters must also consider these relationships. With this expertise, the forecaster follows the subtle shifts in colour trends, develops colour stories for combining and coordinating colours, and predicts the significance of the colours for a product category.

### **SALES FORECASTING**

The sales forecast is a projection of expected demand given a set of environmental conditions. Quantitative and qualitative methods are used to develop the sales forecast. A sales plan is the managerial strategy designed to meet or exceed the sales forecast. The sales plan merely defines goals and provides motivation for sales levels that meet or exceed the base-the underlying sales forecast. Managers sometimes make the mistake of skipping or ignoring sales forecasting and set the sales plan goal at 5% or 10% higher than last year's sales. Unless environmental factors favour that increase-factors such as growth in the industry, market share, or consumer demand-no amount of motivation or promotion will make the sales plan happen.

The measure of accuracy for the sales forecast is the difference between the forecast and what actually happens. The best way to improve forecasting accuracy is to review actual sales figures against the sales forecast for the same time period. Differences between the two must be explained in terms of variation in the environmental conditions or problems with assumptions underlying the forecast. In this way, executives build a better understanding of how environmental factors have an impact on sales.

Sales forecasts have a specific time horizon and are usually updated quarterly. Many executives in a firm need access to the sales forecast, including:

- Marketing managers planning promotion, pricing, and channel placement for individual products and product lines.
- Sales managers as input for the sales plan by geographic territory or sales force deployment.
- Financial managers projecting costs, profit levels, and capital needed to operate.
- Production managers planning and scheduling labour and equipment, and ordering raw materials.
- Distribution managers planning the logistics of getting products from production sites to retailing venues. Sales forecasting requires access to three kinds of information.

First, forecasters need internal data on sales volume and marketing actions such as changes in pricing, promotional efforts, or channels of distribution. Second, they need information on future plans for marketing and product distribution. Finally, they need external data relevant to their market and information on general economic, political, and cultural conditions.

The internal data allow the forecasters to group data in different ways to evaluate recent and past performance. Some of the basic ways to group data for analysis are by:

- *Sales volume.* Determine the relative contribution each product or product group makes to the company's revenue by comparing sales for that product or group to total sales volume.
  - *Sales volume by geographic area.* Break down sales by geographic area and compare actual sales to potential sales given the demographics and retail climate in each area.
  - *Sales volume by time period.* Discover seasonal effects and the effect of price changes, promotions, and advertising on sales by comparing fluctuations in sales against a time scale.

- *Sales volume by sales channel.* Discover which sales channels are most profitable by comparing sales performance by type of distribution and retail venue as a guide to increasing or decreasing reliance on each channel.

Viewing sales volume through these various lenses, the forecasters correlate the effect of past decisions on sales and market share. The quality of the forecast depends on how precisely sales are tracked. Company executives decide whether to track sales by:

- Stock-keeping unit.
- Individual product.
- Product family.

The company executives also decide how to aggregate sales data daily, weekly, or monthly. Setting these levels for analysis depends on the prior experience of the company, the product profile, and the volatility of the marketplace. The sales forecast is a projection of expectations given past performance and what is known about future marketing efforts. These projections will be inaccurate unless they are corrected to take into account external data such as the expectations for the economy and the effects of the product life cycle.

### Sales Forecasting Methods

Many managers have a limited background in sales forecasting and are daunted by the many statistical techniques that can be used. Selecting which techniques are appropriate for a particular situation can be confusing. To begin to pierce that confusion, managers can view these techniques as falling into three broad categories:

- *Time-series forecasting.* A common forecasting task is to predict sales for the next 12 months based on sales of the past 36 months. Time-series techniques are quantitative—that is, they use values recorded at regular time intervals to predicts future values.

- *Correlation or Regression Techniques.* Another common forecasting task is to predict the increase in sales given some marketing action such as a sales promotion or advertising campaign. In this case, correlation or regression techniques are used to compare how a change in one variable causes a change in another variable.
- *Qualitative Techniques.* Changes in sales volume may result from the actions of the company or from other factors such as actions by competitors and economic conditions. Time series techniques cannot foresee and regression techniques cannot account for changes in demand patterns and other relationships that affect sales volume. Instead qualitative techniques call on the expertise of people inside and outside the company to adjust the forecast to account for these factors.

The three categories include many different sales forecasting techniques—there are about 60 different time-series techniques alone. However, managers need to understand only a few basic techniques—all the others are variations on the basic group. Sets of quantitative management tools are now available as software packages so that managers can manipulate data in spreadsheets and databases on their desktops instead of having to request an analysis from the management information staff. Because the software performs the calculations, managers can shift their focus to understanding the reasoning behind the mathematics.

### Sales Forecasting in Context

Whether in marketing, sales, finance, production, or distribution, an executive working with short-term sales forecasts needs perspective and context to guide decision-making. The quarterly sales figures are small slices of larger cycles. Understanding those cycles helps the executive modulate decisions with some recognition of the bigger picture and what is likely to happen next.

### *Product Life Cycle*

A product progresses through a series of predictable stages called a life cycle from the time when it is merely a concept to the end of its time in the marketplace. For marketing executives, this concept has strategic and tactical implications. For new products, the product life cycle provides preview of the stages and duration that can be expected. For existing products, the recognizable stages in the product life cycle indicate what could happen next. The stages of the product life cycle are:

- *Development stage.* This stage begins when a company identifies a market opportunity; product ideas are researched, screened, and developed to satisfy the needs of a target market; and decisions on pricing are made. During this stage, investments are first made but no revenue is generated.
- *Introduction stage.* Successful introduction depends on whether the product has been tested and is acceptable to the target market, marketing activities have been correctly integrated, and the launch is timed properly. The goal is to entice the consumer to try the product. During this stage, sales will begin and increase in volume or the product will fail.
- *Market development stage.* A product may survive introduction because it is novel or unique but to continue to sell it must provide a bundle of tangible and intangible attributes that satisfy consumers enough to generate repeat sales or recommendations to others. The company must convince the consumer to prefer this product and this brand. Sales gain momentum as information spreads through advertising, promotion, and word-of-mouth.
- *Exploitation stage.* During this stage, a market-oriented company will seek to extend sales beyond the initial target market to other segments and open new distribution channels as a way to extend the market and promote sales volume.

- *Maturity stage.* Variations and versions of the product become widely available. Competition between brands increases and prices decline. At this point, supply catches up with demand. Demand can be characterised as expansion-new customers buying for the first time-and replacement or repeat demand-users replacing the product with the same or similar product.
- *Saturation stage.* Expansion demand disappears as competitors attempt to take market share from each other using sales promotion activities. Because so many products are available, "sameness" becomes apparent and brand preference weakens. New substitute products appear and lure customers away. Most companies realign their marketing mix to extend this stage as long as possible.
- *Decline stage.* All products eventually decline because consumers' needs, wants, or habits have changed, substitute products have appeared, and the product attributes have degenerated. Some companies withdraw the product at this stage and introduce a replacement product. If not, the decline stage sees a strong downward trend in sales volume, with most sales of the repeat type.

Time spent attempting to predict the shape and duration of a new product's life allows a more measured approach to production and merchandising and creates lead-time for planning competitive moves. Looking at a product's place in the product life cycle provides lead-time to develop ways to extend stages and indicates when a product should be phased out. Attention to the stages of the product's life cycle provides a background of expectations against which sales volume can be viewed and projections for the future made.

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## Bibliography

- Akiko Fukaki, et al., *Fashion: A History from the 18th to the 20th Century: The Collection of the Kyoto Costume Institute*, Taschen, 2002.
- Alison Gernsheim, *Victorian & Edwardian Fashion: A Photographic Survey*, Courier Dover Publications, 1982.
- Barbara Deckert, *Sewing for Plus Sizes: Creating Clothes that Fit and Flatter*, Taunton Press, 2002.
- Bradley Quinn, *Techno Fashion*, Berg Publishers, 2003.
- Christopher Breward, *Fashion*, Oxford University Press, 2003.
- Claire B. Shaeffer, *Couture Sewing Techniques*, Taunton Press, 1994.
- Diana Craine, *Fashion and Its Social Agendas: Class, Gender, and Identity in Clothing*, University of Chicago Press, 2000.
- Frances Harder, *Fashion for Profit: A Professional's Complete Guide to Designing, Manufacturing and Marketing*, 2004.
- Frank W. Hoffmann, William G. Bailey, *Fashion and Merchandising Fads*, Haworth Press, 1994.
- Holly Brubach, *A Dedicated Follower of Fashion*, Phaidon Press, 1999.
- Jeanne Stauffer, *Sewing Smart With Fabric*, DRG Wholesale, 2004.
- Jenny Davis, *A Complete Guide to Fashion Designing*, Abhishek Publications, 2006.
- John Prescott, *A Career in Fashion: Merchandising and Marketing Management*, Institute For Career Research, 2000.
- Linda Welters, Patricia Anne Cunningham, *Twentieth-Century American Fashion*, Berg Publishers, 2005.
- Paul Jobling, *Fashion Spreads: Word and Image in Fashion Photography Since 1980*, Berg Publishers, 1999.
- Peter McClaud (ed.), *Past and Present Trends in Fashion Technology*, Abhishek Publications, 2006.

- Richard P. Appelbaum, Edna Bonacich, *Behind the Label*, University of California Press.
- Rob Schorman, *Selling Style: Clothing and Social Change at the Turn of the Century*, University of Pennsylvania Press, 2003.
- Sue Jenkyn Jones, *Fashion Design*, Watson-Guptill Publications, 2002.
- Sylvia Rosen, *Patternmaking: A Comprehensive Reference for Fashion Design*, C.H.I.P.S, 2004
- Tony Hines, Margaret Bruce, *Fashion Marketing: Contemporary Issues*, Elsevier, 2001.
- V.D. Dudeja, *Professional Management of Fashion Industry*, Gagandeep Publications, 2005.

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