

A Look Back at Zero-Waste Fashion Across the Centuries



B. Subathra and D. Vijayalakshmi

Abstract Sustainable fashion is an endeavor that draws together sustainable development and fashion. In recent years, the fashion industry has received abundant criticism over its limited consideration of social and environmental welfare issues on the global public agenda. The concept of zero waste design includes many different approaches which all aim to eliminate fabric waste. Although its name is new, the idea is much older: for example the traditional Japanese kimonos or Indian sarees both make use of one complete piece of a fabric without wasting any of it. Most of the centuries, could find the trace of traditional clothing were used as multipurpose wear. A rectangular piece of cloth was worn as garment, used at bedsits, cradle, as shawl or head-gear at different climates. The traditional rectangular piece of cloth, found as unisex wear, was used by both men and women. At each century could see the zero-waste clothing's over different countries like Egypt, Greece, Rome, Japan, and Korea. Even in the twenty-first century without emphasizing the concept, few zero-waste clothing are used by the Indian people. Zero-waste approach means designing without wasting fabric. While pattern making, the awareness of parameters and space creates the endless possibilities of zero-waste techniques. A key aim of this study is to analyze the traditional clothing of various countries over the centuries and to provide the industry with findings that can be applied to design garments, which can also manufactured and to suggest designers, to what extent zero-waste approach is feasible and desirable within contemporary fashion industry.

Keywords Contemporary · Sustainable fashion · Zero-waste design approach

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1 Introduction

Fashion is defined as, a trend that occurs at a specific era and area: It influences the people to think that what makes a sustainable lifestyle, such as whether fast fashion is sustainable, slow fashion is sustainable, or whether it should be more inclusive or exclusive. Fashion, resides at the nexus of desire and discard, between the glistening yearning to live and the sweltering heat of death. When it comes to the clothing themselves, their durability is decided by their use and “metabolism”—certain garments are made to endure a long time, such as outdoor wear and winter jackets, while others, such as a party top, are designed to be worn quickly.

Based on the clothing need, some can be manufactured to be either more durable, while others should be compostable or recyclable to decay more quickly. The aging of some garments acquires a patina and enchantment comparable to the wonder, fascination, and splendor of ruins, whereas the discarded rags of last season are an eyesore and a nuisance; the first denotes a majesty of taste and the second, waste.

A fundamental reason for the current unsustainable status of the fashion system is the rapid rush of new products onto the market, or fast fashion. Fast fashion is a catch-all word for low-cost, easily available, and on-trend clothing acquired through global supply chains and sold by well-known brands. Every year, the fashion industry spends three trillion dollars. It accounts for 2% of worldwide GDP, which is defined as the total value of all finished products and services produced inside a country's borders. The majority of the three trillion dollars comes from fast fashion.

The “rapid” part of consuming is primarily a problem for the environment when done on a large scale. Because fast conspicuous spending was mostly limited to the wealthy, its global influence was overlooked or dismissed. As a result, purchasing haute couture quickly is not seen as a problem, but rather as praise, whereas purchasing fast fashion by those with lower means is seen as unethical and inappropriate. Fast fashion has become the standard in an industry that is constantly releasing new collections and products: a high-quality garment does not always imply a lower rate of consumption and waste. Fashion trends are speeding up, exacerbating the situation. The demand for apparel has increased as a result of the short duration of micro-trends.

2 Fast Fashion

The fast-fashion business harms the environment and is unethical in terms of production. To keep up with shifting fashion trends, clothing is made in dangerous methods due to no other options to satisfy customers. Synthetic fibers are used instead of natural fibers in “fast” apparel. Fossil fuels are used to make these fibers. This is expected to account for 66 percent of our apparel. Landfills are quickly filling due to the high cost of such clothes and the regularity with which they are purchased. Fashion products account for over 20% of global trash, with more than 60% of clothes

manufactured each year ending up in landfills as consumer waste. Low salaries and exploitative working conditions are typical in factories that create fast clothes, and these factories are often exploitative.

3 Slow Fashion

A slow fashion movement, based on the concepts of slow food, can be regarded as a counter-force to fast fashion. In the same way that emotional, ecological and ethical elements are prized over uniformity and dull convenience, sustainability aligns with “slow fashion” ideas. It is necessary to change infrastructure and reduce commodities throughput. Slow fashion, in general, isn’t about business as usual, nor is it solely about design. The slow fashion movement isn’t typical fashion trend, and it’s not limited to traditional styles. Slow fashion is about creating unique, personalized goods while respecting our living situations, biological diversity, cultural identity, and limited resources.

Slow Fashion emerged as a result of a need. Kate Fletcher coined the name following the slow food movement. Similar to the slow food movement, she saw a need for a slower pace in the fashion industry.

Fashion’s growth is concerned with mass production and worldwide style is challenged by slow fashion. It becomes a protector of diversity and shifts power dynamics between fashion designers and consumers. It is resulting in the formation of new relationships and trust that can only be achieved on a smaller scale. The design process promotes an understanding of how the process affects resource flows, employees, communities, and ecosystems.

4 Sustainable Fashion

Few decades before, there was a culture that people used very limited garments and accessories. People wore comparatively few clothing before the start of mass manufacture. Bespoke outfits were created for high-status individuals, whereas low-status individuals created their attire by their own hands. Repairing and remodeling procedures allowed the clothing to be preserved and utilized for longer periods. In a family, an article of clothing created for the elder son is worn by him for a few years before, being worn by the family’s youngest son at the same age. These are long-lasting items. Consumers bought more, because the ready-to-wear fashion culture standardized sizes and cost reductions due to large production, even if the fit was poor. Simultaneously, globalization of manufacturing, greater competitiveness, and consumer demand have expedited the fashion cycle, resulting in a culture of rapid and throwaway fashion.

5 Sustainable Fashion in History

The concept of zero-waste clothing technique is not a new idea to get confused to adopt in bulk production. The people in the old centuries used minimum resources from Mother Nature. Ancestors tried to safeguard nature. Multipurpose clothing was adopted in those periods. A long cloth used as a shawl during winter was converted to a pouch to hold the grains, then used as a covering cloth of furniture, it was later used as a bed sheet during night time.

5.1 Before Common Era

5.1.1 Egypt

Egypt is located in the Northeastern corner of Africa. Nile River is the reason for its prosperity. Abundant cultivation of flax plant is found here and Linen is the fabric made from it. Egypt's climate is hot and sunny where linen gives perfect complement to this climatic condition. The hot climate made the people want to wear an article of lightweight clothing. One of the most appealing properties of linen was its thinness. Thin and sheer linen could be made to be transparent.

The loincloth was a very small garment that covers the private part, which was worn by the working men. Later years, the length of the loincloth reached till mid-thigh and the loin skirt also evolved. The main form of dress of kings in the olden days was Schenti, a small kilt tied around the waist falls till knee cap. Kalasiris was a long linen dress, made with very fine, thin yarn. This transparent dress was used by wealthy women; heavy coarser kalasiris looks very thick, and that was the clothing of poorer women. Cleanliness was considered more important in Egyptian culture than decorations.

In the later periods, the bell-shaped tunics, which were fitting close to the shoulders and flaring toward the ends were in fashion. The women's attire was more or less similar to that of men. It consisted of a simple the narrow straight garment which reached from the breast to the ankle and was held up by two straps on the shoulders (Figs. 1 and 2).

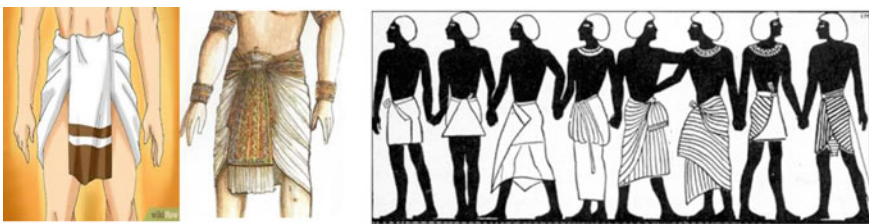


Fig. 1 Labours Loin cloth and king's Schenti and its various draping styles

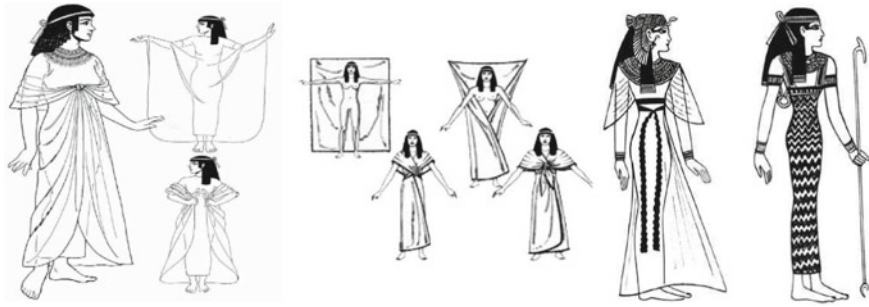


Fig. 2 Draping styles of Kalasiris & bell shaped and narrow tunic

5.1.2 Greek

Greece is located in south-east Europe; it has a famous tourist place of Rome and Athens. Greece shares its boundaries with Libya and Egypt, Italy, and Cyprus. Ancient Greece is well-known for its rich heritage civilization and simplicity of the dress. Chiton and Himation were the traditional unisex garments that are always associated with the life of Greek. The garment which resembles the Chiton was used by women named peplos. It was a large square piece of fabric folded near the bust region and tied. This folded part was called Apoptygma (Figs. 3 and 4).

The chaste and refined simplicity of Greek dress is a legacy of ancient Greek civilization to posterity. Throughout Greek history, men and women wore the Chiton and the Himation, both associated with Greek culture. Nowadays, those are frequently called tunic and the mantle. The outer garment worn by the Greeks was the Himation. It was an oblong piece of Linen fabric measuring about fifteen feet long and six feet wide. It was wrapped over the body so intricately that no clasps were required to keep it in place.

Ancient Greek women wore peplos as an outer garment. This was a large square-shaped piece of cloth. Using a double layer of cloth to cover the chest is called

Fig. 3 Greek woman draping traditional peplos





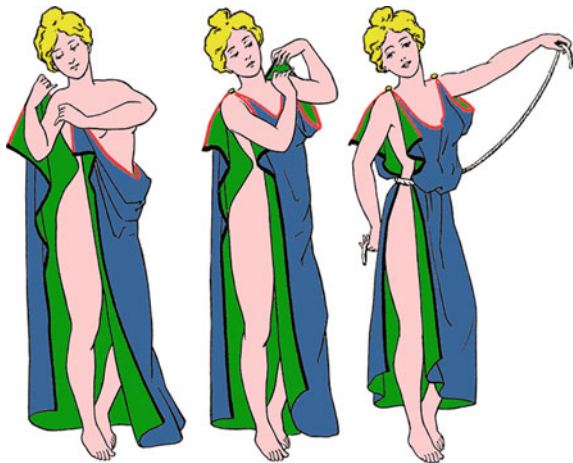
Fig. 4 Draping method of Ionic peplos and Doric peplos

Apoptygma. Wrapping the cloth around the body and fastening it with breeches over each shoulder.

The ionic or laconic *peplos* was a rectangular piece of fabric wound around the body and the edges of the fabric were kept at the right side shoulder, which makes an opening at the right side of the body. The left part is covered with fabric and the right side fabric edges are tied as a knot. The doric peplos was a kind of garment sewn on the edges and made as tubular fabric (Fig. 5).

Peplos were usually worn with a belt. Belts can be worn either over or under Apoptygma. The Chiton was a form of the tunic which was doubtless of Asiatic origin. The earliest form of Greek chiton was called the Peplos. This was in use during the period 1200BCE–600BCE. Ancient Greece wore the Doric chiton as one of the most popular garments for men and women.

Fig. 5 Draping styles of Chitin



5.2 *Common Era*

5.2.1 1–5th Century

Rome

Ancient Rome is described as a Roman civilization, which developed from a small town situated on the Tiber River in central Italian Empire. The arts and architecture of the Roman Empire are parallel to the history of Rome. Many of their ideas came from the Greeks, but as the empire expanded, people from many different cultures, climates, and religions were integrated into the empire. Greece and Rome are nearby, both countries are separated by the Ionian arm of the Mediterranean Sea. It is not surprising that they were well aware of each other. The tradition and culture were spread one from the other.

The expansion of the empire led to wider trade opportunities. As a result, a greater variety of elegant fabrics became available. The wealthy could access high-quality embroidered edging and fringing on cotton and silk from India and East Asia. History reveals that Elagabalus was the first Roman king, who used silk clothing.

The toga, a wraparound robe worn by ancient Romans, was their favored choice. The Toga, which was worn by both men and women over the long tunic or Stola, which was akin to the Greek Chiton, was considered the Romans' national clothing. Wrapping a huge part of cloth material wound around the male body like a cloak is a common in that era. A toga functioned similarly to the Greek Himation. The peculiar draping method of the toga gained a special distinction under the empire.

Togas were draped across a figure starting with the left foot. Bypassing the straight edge underneath the right arm, over the shoulders, and across the back, the point was reached. Over the left shoulder, it was carried across the chest, leaving the remaining portion hanging from the back. If the ends were long they were shortened by tying knots, however, sometimes as a sign of great dignity, the ends were allowed to sweep the ground.

Heavy woolen fabric in the form of a half circle was also used as a toga with the unique draping style. The size of the fabric is 18 feet, which is approximately 5.5 m. To drape the cloth, 5 feet of the straight edge from the floor level were positioned in the center front of the body. The material was passed over the left shoulder, twisted around the back, right arm, and then passed over the left shoulder once more. As a result, the right arm became free.

The color of the material and the surface embroidered rose was famous in clothing. The basic clothing style is termed Chiton or Tunica, which was famous for its color of the material and rose-shaped surface embroidery. The color of the garment distinguishes the classes of society. Royal people found the colors purple and gold. Men in high rank wore a striped purple toga (Fig. 6).

Purple silk toga with golden embroidery-badge was worn by the empire families. Blue for the philosopher, Black for theology, Green toga for medicine people, White for soothsayer without ornaments. The peasantry was allowed to use only one color,



Fig. 6 Draping method of traditional Toga

Fig. 7 Multiple layer clothing style as new fashion



the officers two, the commanders three, and for the royal household seven colors were permissible.

Palla was distinctly a woman’s garment never adopted by men. It was worn over a long tunic or stola. The stola resembled the Greek Chiton and fell in numerous folds about the feet. Originally it had sleeves reaching the elbow and later extended to the wrist. The lower edges of the palla were often trimmed with border and fringes. Roman women wore several tunics, one over the other in different colors, to express their luxurious taste. Mamillare was a breast band used by women of Rome (Figs. 7, 8, 9, 10, and 11).

Fig. 8 Male & female clothing of Rome I

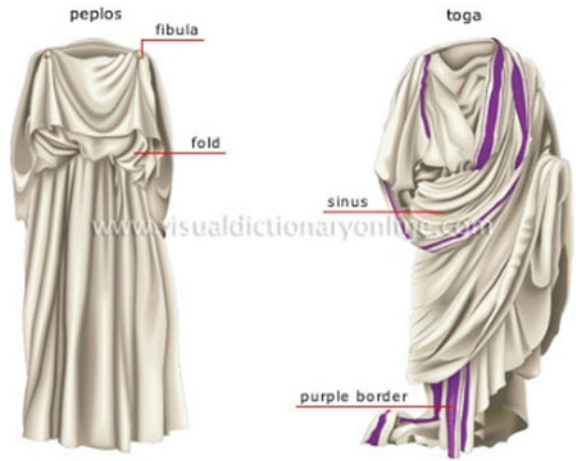


Fig. 9 Roman's Dalmatica original Dalmatica kept in museum



Fig. 10 Costume of Philosopher, Roman costumes of common people-Dalmatica, Toga, Mantle

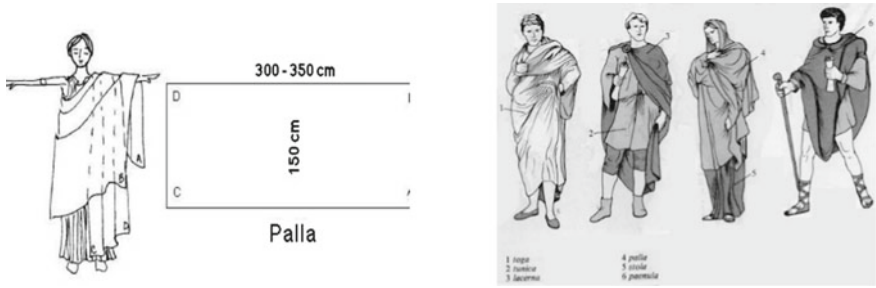


Fig. 11 Traditional Roman Women's clothing & traditional Men's clothing



Fig. 12 Costumes of Middle East countries

5.2.2 6–10th Century

Middle East Countries

The Middle East had an incredibly uniform costume throughout its history. A large part of this is due to its evolution as a weatherproof garment, used as a shield against various climatic conditions. Numerous Muslim countries accept and encourage traditional clothing as well.

Many of the Middle Eastern traditional garments are free size fitting and cover most of the body. Although the garments are used in many countries, they are named differently in each place. A similar variation can be found in the materials from which they were, and still are, fabricated. Textiles made from linen, cotton, and wool are typically worn by the affluent, but rich garments with silk bases are the exception. Several famous materials come from here, such as baldachin, a richly decorated fabric, gold yarns were interlaced with silk threads (Fig. 12).

Fig. 13 Mantle S

Arabian Countries

Many of the traditional garments of this region originally originated in ancient cultures, particularly in Persia (Iran), India, Mongolia, and Asian Russia. This is the case with the caftan. The garment is an open, coat-like garment called a candys or kandys in ancient Persia. This style of clothing was also common in Mongolia and China, and it eventually extended westward to become, in the late Ottoman Empire, the fashionable dolman.

The typical Middle Eastern clothing spread as Arab civilizations and people spread throughout the Middle East. At the time, the most typical apparel consisted of a loose shirt, chemise, or robe, a draped cloak, broad, baggy trousers, and a turban or head cloth. Street vendors still offer these items in Egypt, Istanbul, and Damascus.

A simple, long shirt, tunic, or chemise, often with long sleeves, was the basic garment for both sexes. There was a robe or mantle over this which was worn by men of varying types. Ancient Hebrew prophets wore the aba as their attire, according to the Bible. Traditional versions are made of cream-colored wool decorated with striped or embroidered designs in bright colors. An outer garment is worn in the Arab world throughout the Middle East that is voluminous.

There are many types of jellaba in the Arab world. In general, there are wide, long sleeves on the garment, and the skirt with side slits and as a coat or caftan with front placket was used along with it (Figs. 13 and 14).

In addition to outer garments and cloaks, some wear coverings on their heads. Haiks were oblong, striped fabrics with an approximate size of 18 feet by 6 feet (5.5

Fig. 14 Gallibiya & Dashdasha with kaffiyeh headgear



by 1.8 m). The material measured about 5.5 by 1.8 m and was worn around the body and head by Arabs at night and during the day. An identical mantle was the burnoose, a hooded garment that was worn day or night to maintain warmth.

Loose, baggy trousers are still quite popular throughout the Middle East, the Balkans, and Anatolia, and are traditionally worn by both sexes. They were drawn tight by cords and measured around 3 yards (2.75 m) at the waist. Depending on the country where they were worn, it was also known as chalvar or shalwar. Ankle ties were used to secure each leg. A thick sash encircled the waist and finished off the chalvar.

This garment was great for field labor since it allowed for freedom of movement and provided protection for the lumbar region of the spine, especially when bending. Men in the military forces have also worn the robe during centuries of conflict. Working clothes are usually made of cotton, although fashionable ladies wear brocade or silk chalvars over linen drawers. Women wore veils or cloaks.

The kaffiyeh has been the traditional headdress of Arab males for centuries. It's still fashionable now, however it's frequently worn with a work suit. Kaffiyehs were traditionally constructed from squares of cotton, linen, wool, or silk folded into triangles and worn on the head with one point on each shoulder and the third falling down the back.

5.2.3 11–15th Century

During the period between the ninth and eleventh centuries, there was a second period of development and wealth. Jeweled embroideries and deep colors, especially purples and reds, were developed into a refined kind of court attire. The royal gown

Fig. 15 Turkish men's traditional



had gold-embroidered panels that wrapped around the body and hung from one arm. The classical style has been replaced by an Eastern-type design. The caftan has evolved into a formal outfit, among other things. The open front of this coat-like garment was fashioned to match the back. Although both sexes wear caftans with trousers, they are not as full as the Middle Eastern chalvars. Instead, they're cut much more gracefully and tucked neatly into boot tops or worn overshoes.

Turkey

As well as the jacket known as *şalvar*, a cut that covers the lower half of the body with loose pants, a sash called *kuşak* accompanied the trousers. The caftan was a long robe, decorated with fur borders, *kalpak*, and *sarak* adorned the head. Caftans with fur lining and embroidery were used by the administrators and the wealthy, while the middle class wore *cübbes* and the poor wore *cepkens* or vests with a collar.

Women usually wear *Salwar* and a mid-calf or ankle length *chemise*, *zibin* a fitted jacket along with that waist belt was also used. In Turkey Women's clothing was *Salwar* and *Chemise*, which was an ankle or calf-length dress, along with it *zibin* was used. It was a small fitted overcoat. Caftan was a robe used during formal occasions. Caftan and *zibin* both were fastened with buttons. These garments were available in bright colors and patterns. *Ferace* was a long dark robe tied at throat with buttons, which was used to cover the women's clothing completely during outings. As well as for covering her hair and face, females wore a pair of veils (Figs. 15 and 16).

Fig. 16 Turkish women's garment clothing-Kaftan



Medieval Europe

During medieval times, clothing styles were changed and most of them looked uniform, both genders wore an identical wardrobe, though crudely and loosely cut clothes were sewn. Shirts or chemises were worn as underwear as they were a sort of loose-fitting drawers. The attire was mostly made of natural colored linen.

Women's shirts were longer than men's and men's shirts were shorter. The neck was round, the front was slit for ease of donning, and the drawstring fastened the braies at the waist. Usually, one or more tunics were worn over this. Both genders wore tunic as their regular clothing, but the height varies for each gender, where men's tunic falls till the knee or ankle length and women's tunic falls till the floor length. A loose-fitting asymmetrical round-neck tunic with long sleeves was girded at the waist. Tunics made of colored linen or wool have embroidered bands on the hems, wrists, and collars. Two vertical sections of hose were sewed together to cover the man's legs. Garters or bands were used to keep them in place.

The dress of the thirteenth century was characterized by its simplicity. The garments lacked decorations, and the belts were not worn. The tunic was normally worn over a sleeveless surcoat, this was derived from the tabard, a dress style was inspired by the soldiers, where used armor to prevent the sun glare off the metal because during the war period there were chances the enemies may follow because

of the metal glare. Women and men often wore surcoats with slits, and a belt was used to attach purse, which helped to safeguard from theft.

The costume changed dramatically around 1350 and outfits became more tailored and shaped to show off the human form. Clothing could be tailored more effectively. Italy and the East were now bringing more and better fabrics to the West. Renaissance culture was perhaps one of the most significant causes of sartorial change. The Renaissance celebrated both the dignity and the importance of humans and revived classical concepts, and by beautifying and displaying the human figure, this was conveyed in the costumes.

In the medieval era, men wore a fitted tunic, which was considered a high-fashion item of clothing. The tunic had four panels, i.e., seams at the sides and back, and it was fastened at the front with buttons. By 1340–45, a lengthy tunic was used which was secured with leather belts, that encircled the hips a few inches above the hem and was embellished with metal and jeweled brooches. Sleeves reached elbow length. From elbow to wrist, long sleeves of the under tunic, of similar cut, were buttoned to fit closely.

Women's dresses also took on new forms. They featured low necklines and straight cuts at the shoulder. A heavy belt fitted around the hips, and the bodice, which reached to the hips, was similar to men's tunic, short skirt with a high waist and long, gathered skirt below the hips. The sleeves were similar to those of men. The top of the gown could also be topped by a sideless surcoat. The armhole and plastron (the front of the gown) were often covered with fur, whereas the gown above had sleeves.

The decorative arts at this time evolved into several new forms. In the first, all clothing, including hose, were of a single color down one side and another across the other, which helped to define the shape of the figure. Changing the ground color and the design color produced counterchange designs that were heraldic, floral, or geometric in motif. There were a variety of shapes were cut in the edge of garments.

These trends continued to develop during the fifteenth century. Hose for men became even more fitted. Suits were often shortened to just below the waist. The material was richer and more elaborately patterned. Over the tunic, long gowns were introduced for older men whose figures were less suitable for display. The dressing gowns were initially full and long (in the fourteenth century), but with vertical pleats in the back and front, they gradually became more tailored and formal. For warmth and appearance, all garments were interlined or edge decorated with fur.

Women wore a wide range of headdresses. The hair coiled over the ears; it was long and plaited. Metal mesh nets encasing the coils were called cauls and were worn with veils. It was fashionable to wear turbans, which were of Byzantine style and introduced to Italy in the fifteenth century. The popularity of witches' hats and short fez-like headdresses resembled that of dunce caps and steeple headdresses. The clothing was designed with beautiful fabrics along with wavy, flowy veils (Fig. 17).



Fig. 17 Surcoat with lengthy armscye and side slit and women's clothing

5.2.4 16–20th Century

Europe

Sixteenth century was the starting point for the further changes in Europe. In France, Flanders, England, and Spain, the Renaissance was gradually laying claim to concepts that had been rejected by medieval societies. The middle class expanded, and people expected a higher standard of living. Europeans began to look abroad as well. Sailing ships sailed to both east and west from Portugal, Spain, and Italy. They acquired richness, precious metals, and new materials on their journeys. All of these things played a part in their clothing.

In fashion, the pacesetters dominated wealth. The style originated from Italy until about 1510. In the following decades, the Germans and the Flemish set the pattern, but from the middle of the century onward, Spain dominated. Early style development reflected the expansion of Italian styles from the late fifteenth century. Shirts worn by youngsters were white and frilled with embroidery at the neck and wrist. A striped tunic and hose were separated from masculine and feminine limbs.

Long dresses, open the center front and showing off the contrasting lining, covered the tunic and hose worn by older men. There were long, flowing hairstyles for men. They wore black velvet hats set at an angle, decorated with brooches and plumes, and decorated with feathers. Dresses for ladies were square-necked, with low-cut bottoms that revealed chemises beneath.

It was common to display skirts under gowns by holding or pinning them up. In the period between 1520 and 1545, padded puffs with decorative slashes shaped the fashionable shape. According to tradition, this idea was taken at the clothing of Swiss culture. People slashed each garment to show the contrast between the color of the undergarment and the one above it.



Fig. 18 Doublet with knee length gored skirt

Compared to the humanist fashion of the Renaissance, which displayed figures and was elegant, the new styles were influenced by Northern European Reformation, evident in darker colors, heavier fabrics, and bulky garments padded to disguise figures. Men's tunics, called doublets, wore a knee-length, gored skirt with a protruding codpiece, which was open in front. Approximately half of the gown was covered in a velvet robe with fur collars and padded sleeves. All garments, shoes and boots had wide toes and were slashed in decorative ways. A fashionable hairstyle, a beard, and a cap worn at an angle were short hairstyles, small beards, and flat velvet caps (Fig. 18).

Women's figures were manipulated artificially with a fit underbody with steel or whalebone strips inserted in the side seams to show the waist and torso as slender. Corsets were resulting from this. A wicker hoop was inset at intervals with canvas hoops to give the skirt its cone or inverted-V shape. By 1500, this style was fashionable in Spain, where it originated in the previous century. Nevertheless, the Spanish skirt, known as a *verdugado*, was shaped like a bell. The cone-shaped hoops were introduced to France about 1530. The queen popularized these hoops and called them *ver-tu-gades*. So, Farthingales fashion spread and appeared soon after in England (Fig. 19).

During the nineteenth century, the first corset was evolved and female clothing grew as elaborated with boned styles. Farthingales dresses changed as padded sausages were added by 1580, known as bum rolls or barrels, and they were knotted at the waist as inner layer to the skirt. As time went on, the French created the wheel farthingale, shaped like a drum with radiating spokes. A very décolleté neckline was created, almost exposing the breasts. A stomacher is a rigid panel, shaped like a V or a U, and it was heavily decorated with ornaments and embroidery.

During the 1620s, Spanish influence was seen in the Netherlands' clothing. While fine fabrics were still used to make the garments worn by the rich and they were used wool, velvet, and silk in their clothing. The most distinguishing item was lace used widely in bands, collars, and cuffs (Fig. 20).



Fig. 19 Farthingale dress with decorative v-shaped stomacher



Fig. 20 Inner skirt for farthingale garment

The early years of English colonialism were difficult for many colonists. People cultivated flax and cotton and raised sheep for wool to make their clothes. In England, the average person wore plainer clothes than those in the United States. Most colonists wore old-fashioned clothes and kept their finest clothes for Sundays and holidays, which lasted for years. It was conventional for men to wear breeches that were full at the waist, doublets, jerkins, and loose-over garments that were popular in Europe during the late sixteenth century.

A short gown with a full skirt was worn by women over a hand-spun petticoat, which was excellent in quality, a long-lasting garment set. Elegant gowns had longer skirts and were composed of finer materials. Virago was a popular sleeve style among American children and women, with wide sleeves at the elbows and shoulders and tight ribbon drawstrings.

Fashionable clothing was popular among Americans in 1700, and there were no longer any obvious distinctions between the other part of America. The rich and well-to-do Americans dressed according to the prevailing fashions, and there was a difference between city rural areas. In contrast, the former was able to afford expensive fabrics and follow fashion trends, but the latter still wore homespun and

woven clothes. The availability of fashion dolls and costume plates made it possible for Americans to stay in touch with the latest styles. Fashion styles were updated from eighteenth-century fashion. Fashion styles were styled and fitted properly. Wearing trousers with shirts became the style of pioneer women and became similar to the men's style. Garments with several layers were reduced to only a few layers. Fashions that fit the body were introduced.

5.2.5 Twenty-first Century

Twenty-first century is considered as modern century. In a few countries, their traditional clothing styles are still followed from the olden centuries. Their cultural clothing styles are preached from their elders to the younger generation. Each generation very carefully passes their traditional clothing styles to the next one. So the cultural garments are still worn on special celebrations. China, Japan, Korea, Thailand, Sri Lanka, India are the countries that still carefully safeguard their cultural clothing.

Japan

The kimono is the traditional costume of Japan. This garment is generally made with silk. The kimono is a loose-fitted full-length garment, has a large, free-size sleeve. Obi is a wide belt used to tie at the waist to hold the garment in position.

The kimono is Japan's traditional attire. Kimonos have long sleeves that span from the shoulders to the heels and are usually made of silk. They are fastened by an obi, which is a wide belt.

During the spring and summer, a special kind of kimono is used by them, which is termed as Yukata. It is an informal kimono, generally available at a cheaper cost than the traditional kimono. This Yukata is a garment for summer, so it is made with lightweight cotton fabric and is available in brighter colors than the traditional one. Yukata is worn during festival and cherry blossom viewing ceremonies. Hakama is a long pleated skirt and it is worn along with the kimono as a formal wear. Kimono with Hakama is originally designed for men, but nowadays it is worn by both sexes.

Obi is a belt-like accessory that wraps around the outer kimono and helps to keep all the layers together but does not close it. It is typically long and rectangular and can be decorated in several different ways. Obi is made from many different fabrics. The fabric used for modern obi is typically crisp, if not stiff, and can be relatively thick and unpliant.

Wearing traditional Japanese clothing creates a lot of fun, and renting kimonos while sightseeing has become increasingly popular in recent years. Japan calls traditional clothing wafuku, meaning "Japanese clothing," to distinguish them from others. Nevertheless, there are many different kinds of wafuku, so here we will discuss the main types of clothing that you are likely to wear if you live in Japan.



Fig. 21 Children's Kimono, Spinster's Furisode, Women's kimono, Bridal attire

There is information in this section about clothes for men and women, formal wear and casual wear, and different occasions and seasons.

Below are a few basic kimono types:

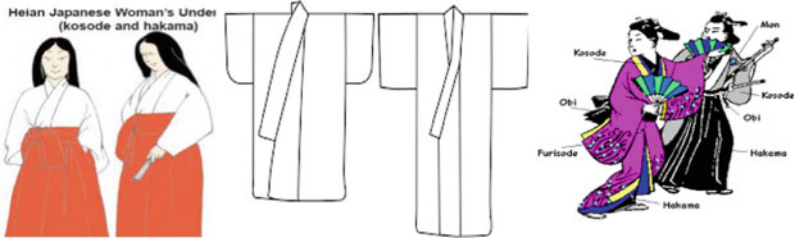
Furisodes are long-sleeved kimonos worn by young female singles at formal events that are formal like weddings or puberty ceremonies. Silk Furisode is a very colorful fabric with bright designs. Homongi is a semi-formal kimono fitting for both single and married women. It would be worn for a tea ceremony or a wedding.

The komon kimono is a more casual version for women that features a finely detailed pattern that is repeated numerous times. These shoes come in a variety of shapes and colors, and they're perfect for wearing about town. When renting a kimono in Japan for touring, the kimono is most often a komon.

Men's kimonos have less diversity than women's kimonos. Both men and women wear kimonos with hakama skirts and haori jackets for formal occasions. Kinagashi refers to kimonos worn without a hakama by men. The level of formality for women is determined by the grade of material used, for instance, fine silk for formal occasions, and lower-grade tsumugi silk for less formal events.

Nagajuban is a type of undergarment worn under a kimono in Japanese culture. The top and shorts are made from linen or cotton and are similar to western pajamas. In addition to being worn around the home, they are also commonly worn on summer festivals by men and children. Summer festivals are also a place to wear bright colored jinbei.

The width of Kimono cloth is typically 14 inches. In the United States, 45 and 60 inches are comparable measurements. Bolts of kimono fabric include around 12.5 yards of cloth, which is enough to make an adult-sized kimono. There are four elements that all kimonos have in common. Standard fabric widths are utilized in geometric forms, requiring little trimming. The front is asymmetrical and exposed. The front aperture is fastened with an elastic band. The kosode and kimono do not have any closures (Figs. 21 and 22).



For the wedding, the groom wears a black kimono with the family crest made of habutae silk, a hakama (a fleeted skirt), and a half-length black coat called haori.

Funeral—The kimono’s basic cut is similar for men and women. The bottom outside corner of the sleeve differs in shape, which is the fundamental gender difference in the kimono. Adult women’s kimono sleeves are somewhat rounded, whereas men’s are square cut. Children’s sleeves are the most rounded, followed by single women’s sleeves.

Thailand

Traditional Thai garment patterns include Thai silk and ankle-length wrap and pasin. Royal type national clothing comes in eight main variations. Thai Borom Bimarn, Thai Chakri, Thai Dusit, Thai Chakraphat, Thai Sivalai, Thai Reun Ton, Thai Chitralada, and Thai Amarin are the traditional styles of Thai clothing.

Fig. 22 Thailand traditional dress



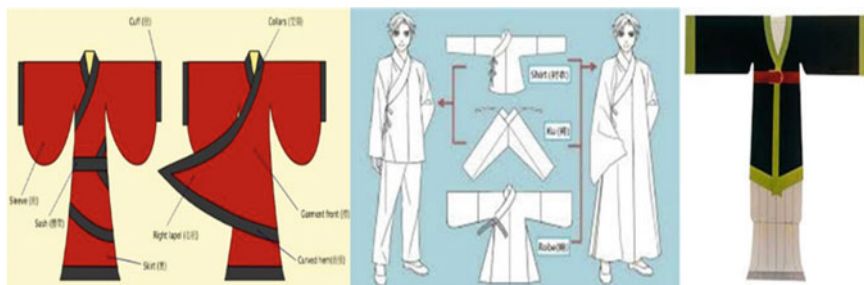


Fig. 23 Chang & Bixi, White cotton inner wears, Kuzhe: a short coat with trousers

China

Traditional clothing is only worn at certain festivals, rites, or religious occasions. Many of the country's ethnic minorities continue to dress in their traditional costume daily, and they played an important role in traditional Chinese clothing. To make an item of ancient Chinese clothing "semi-formal," add the following elements: Chang: a pleated skirt with a long front cloth panel attached to the waist belt.

Bixi: a pleated skirt with a long front fabric panel linked to the waist belt. Zhaoshan: a long coat with a front open, a Guan or other ceremonial hat; this outfit is appropriate for welcoming guests, attending meetings, and taking part in other important cultural activities in general. Because these are often expensive garments made of silks and damasks, they are generally worn by aristocracy and upper-class people.

Coat sleeves are usually longer than shenyi to give the impression of larger volume. Other Ethnic Minority Clothing: There are 54 ethnic minorities in the country, each having its own set of costumes. Unlike traditional Han Chinese costumes, these costumes are still fashionable today. The two possibilities are a long gown and a short coat with pants or a skirt. Long gowns with hats and boots are common; some choose short coats and, in general, wear shoes and wrap their heads in a cloth (Figs. 23 and 24).

In the Ming Dynasty, it was a formal dress worn by intellectuals and students sitting at the imperial examination. It has a round neck with a button and is wide-sleeved with black edges. It must be worn with a crossed-collar undergarment underneath. Side slits may or may not be present (with side panels to conceal the undergarment). Since the Tang Dynasty, it has been worn (Fig. 25).

Sri Lanka

Sri Lanka Longyi—checks, plaids, or stripes in any color that run the length of the fabric. Two meter-long cotton garment with one end twisted into a half-knot and tucked at the waist. Hetta is a fitted, short-sleeved shirt with a waist length. It may



Fig. 24 Old & current clothing style of chinese woman



Fig. 25 Recent days Chinese traditional wear

or may not have buttons on the front, but it invariably has a closed back, unlike the choli. Cheeththa is a long ankle-length skirt or a skirt that wraps around the body. A sort of sari is the osari. Redda is a wraparound skirt with a cap tucked in the waist. A two-piece dress with long ruffles at the shoulders and waist is known as a lamsari (Fig. 26).

India

India is famous for its traditional colorful clothing. Each state in India has its own style of traditional clothing. Sari and choli are our common garments. Sari is a rectangle piece of cloth commonly worn in India by women. The length of the sari varies from 5.5 yards to 9 yards, its length and draping style various from state to state. Half sari, front pleat and back pleat style, madisar style, and pallu at right arm style are the various styles of sari draping. Choli and blouse with an othni are traditional costumes of women in North India. Men's costumes are dhoti with a shirt or salwar with kurtha. Cotton clothing is found everywhere due to climatic conditions. Wearing of turban on the head is seen in all states especially labors who work under direct sun. Silk is considered a holistic garment for a special occasion.

Fig. 26 Sri Lankan men with traditional wear



In Tamil Nadu, the sari is a very important piece of traditional women's apparel. Kancheepuram saris are well-known for their excellent elegance. They differ from North Indian saris in terms of color, texture, and style. The sari's length is usually between five and six yards (Figs. 27 and 28).

Women wear blouses to cover their upper bodies. The blouse covers till mid-torso. It may be stitched however the wearer desires it to be with different types of color work, lengths of the sleeve, and even the length of the blouse may vary.

Both men and women wear the Lungi in Kerala, which is also known as Kaili or Kalli Mundu. It is considered working or informal clothing for laborers. Lungis are worn by the majority of men in Kerala as house or sleepwear. The state's traditional attire is known as "Mundu," and it is worn on the lower half of the body, from the waist to the foot. It's white, and both men and women wear it. It has the appearance of a long skirt or a dhoti. Gender and age affect the upper garment. Mundu is a white cloth wrapped around the waist as a lower garment. It has a Kara border which can be in any color, but it is usually golden. Kara gives the Mundu a flair by showing it on the person's left or right side.



Fig. 27 Tamilnadu’s saridraping style

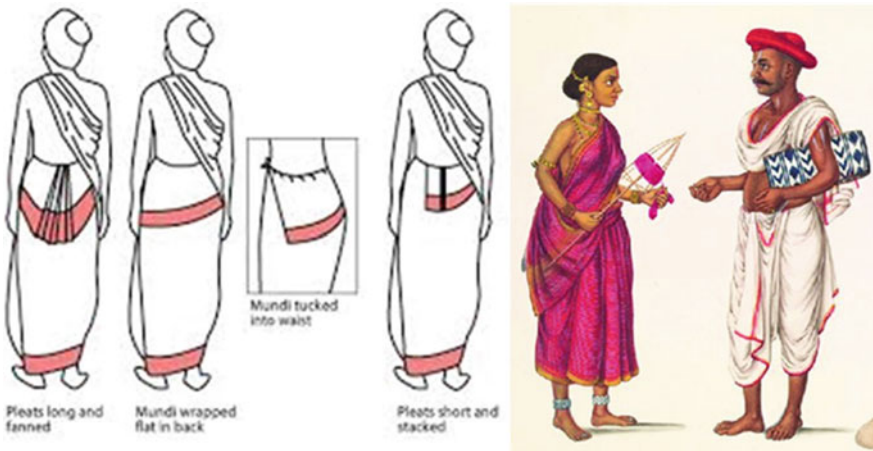


Fig. 28 Traditional sari draping method

The upper garment is called “Melmundu,” and it is worn on the shoulders like a towel. Many males these days wear white shirts as well. Women’s traditional clothing is known as “Mundum-Neriyathum.” This is made up of two Mundus that are very similar. One of them is worn around the hips and reaches the ankles on the lower half of the torso (Figs. 29 and 30).

Women in Maharashtra wear nine-yard-long saris. The sari is tucked in the middle, giving it a dhoti-like appearance. The remainder of the sari is draped over the woman’s upper torso. Lugade is the name given to this sort of sari. The sari was worn in a variety of ways by women (Fig. 31).

Fig. 29 Kerala Men's wear
Dhoti & Mundu



Fig. 30 Maharashtra Women's clothing

Knife pleated skirts, box pleated skirts, inverted box pleated skirts, six-panel petticoats, elastic plain skirts, Patiala pants, wraparound skirts, and kimono nighties are all common. These are zero-waste cut clothing that has been around for a long



Fig. 31 Various states Saree draping style in India



Fig. 32 Varieties of zero-waste clothing

time. This clothing has been worn in most countries throughout history, both before and after the Common Era (Fig. 32).

6 Impact on Sustainable Fashion

Zero-waste fashion refers to clothing that generates very little or no textile waste during production. It is within the umbrella of the greater sustainable fashion movement. It can be classified into two groups. Waste is eliminated before it reaches the consumer hand. Post-consumer zero-waste fashion uses post-consumer garments, such as second hand clothing, to create apparel that reduces waste at the end of a garment's product life cycle. The concept of zero-waste fashion is not new [5], with the kimono, sari, chiton, and a range of other traditional folk costumes serving as early instances of zero-waste or near-zero-waste clothes.

This category encompasses two broad techniques, both of which occur during the garment's initial production. Working within the cloth width, the designer creates a garment utilizing the pattern cutting method in zero-waste fashion design. [2] This approach has a direct impact on the finished garment's design because pattern cutting is a vital design stage. Although drawing can be a great exploratory tool, designing a zero-waste garment only through sketching is tough. Zero-waste production, which includes zero-waste design, is a comprehensive approach to eliminating textile waste without requiring changes to clothing patterns. The three "R"s of the trash hierarchy are Reduce, Reuse, and Recycle, in order to reduce environmental impact. Textile waste is removed before it reaches the consumer in zero-waste fashion design, but it does not necessarily address waste generated during the garment's useful life and disposal.

7 Impact of Slow Fashion

Slow fashion is an antithesis to fast fashion and part of the "slow movement," which advocates for manufacturing that respects people, the environment, and animals.

Slow fashion, as opposed to fast fashion, involves local artisans and the use of ecologically friendly materials, intending to protect crafts and the environment while simultaneously offering value to both consumers and producers. According to slow fashion, "Identify sustainable fashion alternatives, based on the repositioning of design, production, consumption, use, and reuse processes, that are emerging alongside the global fashion system, and are providing a potential challenge to it."

It is an alternative to fast fashion in the sense that it encourages a more ethical and sustainable way of living and purchasing. [3] "All facets of the 'sustainable,' 'eco,' 'green,' and 'ethical' fashion movements are included." [4] The Slow Consumption Movement is another business approach that focuses on both slowing down consumerism and conserving the environment and ethics. For a long time, it was linked to a distaste for quick fashion.

Slow fashion, as opposed to fast fashion, emphasizes high-quality production to lengthen the life of the garment or material. The purpose of slow fashion is to create a garment with a cultural and emotional connection; buyers will keep an item of apparel for more than one season if they are emotionally or culturally attached to it. [8] A tax is being devised to make it more difficult for fashion companies to buy or produce materials that are not made from recycled, organic, or reused materials. [9] The industry's carbon footprint will be decreased by repurposing previously made resources [9].

There is also a strong drive for businesses to be more transparent. Many sustainable fashion firms make their clothing and design manufacturing methods public, allowing customers to make more educated purchasing decisions. [10] Following the slow

movement, there is a trend toward more informed purchasing, as well as new clients for businesses.

8 Conclusion

Slow fashion is gaining steam, fueled by increased environmental concerns, as part of a greater goal of sustainable fashion and, as a result, cleaner earth. Slow fashion is a prominent counter-trend to fast fashion. Slow fashion, she claims, is more concerned with quality than with time. Other early adopters of the slow fashion movement point out that it promotes slower production, integrates sustainability and ethics, and eventually encourages buyers to spend on well-made, long-lasting clothing. Slow fashion and zero-waste apparel aren't exactly new concepts. It had been widely embraced only a century ago. This culture has lost its luster over the last 100 years, i.e., the twentieth century. Now, due to increased environmental awareness, it has been loudly proclaimed once more. Slow fashion adaptations of traditional garments will protect the lives of all living things on the planet.

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