

Eco-friendly concept: female clothing design inspired by plastic bag's pattern

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Abstract: Environment is facing lots of problems mainly caused by plastic bags. Plastic bags have very harmful effect on environment as they don't dispose of. Recycling is a process in which the waste material can be reused and re-created to give it a new look which also saves money and make environment eco-friendly. This study focuses on conveying eco-friendly fashion concept to the consumers. Inspired by plastic bags' shape and patterns, the author creates a new method of pattern making for female clothing which decorated on different materials. Through design practices and draping experiments, a new ready-to-wear collection shows the more possibility of eco-friendly idea in fashion industry.

Key words: eco-friendly; fashion design; female clothing; plastic bags; pattern

1 Introduction

This study is based on the world's most important concern these days that is environmental pollution. Plastic shopping bags are the most worst invention of human being in the 20th century. With its many of advantages it has lots of disadvantages also, as it is non-degradable product. Plastic bags are the most common and foremost need of today's human being as they are very cheap and convenient. Its usage is so global that it seems impossible for people to stop using it. On the same hand they are causing serious damage to the environment as they can't be recycled and discarded.

Sometimes its one time usage takes 1000 of years to dispose of. According to researchers, plastic de-generates slowly, their degeneration time could be anytime from twenty to a thousand years and as time passes the plastic lies somewhere in between "complete preservation of structure and complete loss of structure". The elements used in the making of plastic bags are non renewable that's why they are not bio degradable. It is also in the users hands that how they can recycle and reuse the same product by saving the environment to get more harmful because most of the plastic bags are only used for one time and then discarded. But some people reuse them, all bags eventually end up in the trash or scattered in the environment. When these are thrown into the sea, river or ocean and swallowed by sea life as this substance knots their intestines and they die painfully, this is how it effects marine life similarly they also effects soil and ozone layer. These are also life threatening to wild life. When these are burnt the emission of hazardous gasses causes damage to ozone layer and cause air pollution. Being non bio degradable it can't be turned into any other substance which is eco-friendly no matter how many times it is burnt. These also cause clogging and blockage of drainage system it manifest that these have very bad impact on overall environment. According to trade association Plastic Europe, world plastic production grew from 1.7 million tons per year in 1950 to 420 million tons per year in 2015. Plastic bag production is expected to double by 2050. Half of all the Plastic manufacturing is done in last 15 years. However, It can't be estimated that how long it takes to break down plastic bags, but according to Environmental Magazine, it takes 500 or more years to break down and will become litter that clogs storm drains and threatens marine wildlife

(Environmental Magazine).

To save environment from all these type of harm and pollution we can use 3R concept. The perfect order can be Reduce, Recycle, Reuse.

- The first R stands for Reduce which means that we should decrease the usage of plastic bags and use something else as an alternative as paper or fabric bags.

- Second R stands for Recycle which means that dispose of them properly rather than throwing into the sea or on soil to make it a harmful for living beings.

- Third R stands for Reuse so reuse them as many times as it is possible for different purposes.

By using this concept we can make the environment eco-friendly. From last few years the world sustainable is mostly used in terms of fashion also. Designers started to make dresses that are eco-friendly and saves the environment from getting more polluted. Many designers used trash bags and polythene to make dresses. According to the fashion magazine, Vogue (May, 2007); sustainable fashion is not merely a short term trend but one which could last many seasons. Pattern making is the art of designing with which clothes and craft items can be stitched. Pattern making is such a process which actually helps designers to transform imagination into a real product. With this technique one can visualize the aesthetic appearance, fitting of garment and also drape and fall of the garment. In this paper plastic bags are used to make pattern and then that pattern is converted onto fabric to shape garment and to achieve a different and special cut line. With pattern making draping technique unique designs are achieved.

2 Draping process and experiments

In this paper, plastic bags are recycled as a basic pattern for draping, to create and to shape it to 3D look and inspirational designs. Marking and then cutting plastic bag in different direction can create new and creative patterns. Among all methods of pattern making draping is adopted for these experiments. Draping is also known as modeling and it is the original method for constructing garments. Its also a way to explore the potential of fabric on body. It is a method which involves fabric to fit on the designated dummy body of specific and appropriate size. It is technique of converting two dimensional piece of fabric into three dimensional. With draping method the designer can see overall and final look of the garment and also the style, silhouette of the garment before it is sewn. There are variety of plastic bags but for these experiments Walmart plastic bags are preferred for their same one size, color, transparency and feel. New pattern making technique and Draping skill are used to shape a whole female look. These plastics bags are used to explore the more possibility of shaping clothing. In the beginning all of the experiments are shaped on small mannequin using Walmart shopping plastics bags. Due to their stiffness they are more preferred to make 3D look of the garment. By using marking, snipping, cutting, folding, pleating, darts and gathers draping method the unique look of the garment is executed. Different design and draping experiments were done to achieve unique looks.

2.1 Experiment 1

This experiment is shaped on the small mannequin to achieve the look. Firstly mark the plastic bag diagonally from one edge to other one and then cut marked line in such a way that I won't be separated and it remains one piece as shown in Fig. 1. Place the plastic bag around the neck to form the center opening as in Fig. 2. Fold the excessive plastic smoothly and make crease from the side and turn it towards the front as in Fig. 3 and as there is already folding in the original pattern of bag consider that as a big dart on right side and form a triangular look of the garment. While shaping the garment half of the back be-



Fig.1 Marking & cutting line



Fig.2 Step 1



Fig.3 Step 2



Fig.4 Step 3



Fig.5 Step 4



Fig.6 The back view



Fig.7 The left view



Fig.8 The right view

come naked then add a separate panel at the back according to the size and shape to complete back look as shown in Fig. 6. Final silhouette of the garment is A . It shaped an Asymmetric design.

2.2 Experiment 2

To achieve this look firstly mark and then cut two plastic bags from center, at the end keep 2 inches and then cut the remaining marked line from one end to the other end this will keep the plastic bag one piece as in Fig.9. Then place one corner of the bag on the left shoulder as demonstrated that one side become front an other will become back of plastic bags and pin it. After this also pin the center front. Fold the original folding of plastic bags in such a way that it can become an oversize collar and place it at the shoulder as follows in Fig.12. Also move plastic back towards and adjust it and then cut it to make v shaped cut line. Like wise do this exactly at the back. Similarly place the other plastic bag corner on the



Fig.9 Marking & cutting line



Fig.10 Step 1



Fig.11 Step 2



Fig.12 Step 3



Fig.13 Step 4



Fig.14 The front view Fig.15 The back view Fig.16 The left view Fig.17 The right view

right shoulder and make the symmetric design. Cut the extra plastic from the bottom and make a straight hemline. Overall look of the garment is A.

2.3 Experiment 3

Its a symmetric design. For this skirt mark the plastic bag diagonally and then cut it so that it can become a separate panel as in Fig.18. Spread this small piece and keep the corner side at the bottom and make it as a panel. Cut 10 similar panels and add them in a row to form a skirt from the edge it can show zigzag shape. The final look of the garment is A.



Fig.18 marking & cut- Fig.19 The front view Fig.20 The side view Fig.21 The back view
ting line

2.4 Transferring the experiment No.2 into a scale modeling(Fig.22–Fig.24)

After all these experiments one of the experiment among them all is converted on to large scale. Firstly prepare the muslin. Make it in a pattern similar to the plastic bag original pattern. To do so cut muslin and fold it then stitch the sides of fabric in such a way that three sides of the fabric are closed and one is left open. From the open side start cutting from the center to end. Fabric is now stitched similar to the pattern of plastic bag. Fold little inward as of the plastic bag shape. Now it is fully prepared. To start draping place one corner of the fabric on the mannequin to achieve the look as achieved with plastic original bag. For this big size draping also add shoulder line make front and back panel separately and also add straight and narrow sleeves to the coat.

2.5 Transferring the real scale modeling into a ready-to-wear female coat(Fig.25–Fig.27)



Fig.22 The front view Fig.23 The side view Fig.24 The back view

After all the experiments and work the garment is converted into the original fabric of white and blue color. As white is the color of purity and blue is a symbol of royalty. Blue color also adds beauty to the overall look of the garment. The addition of blue color creates more interest in the appearance of coat and make it more appealing. The silky, shiny and thick fabric suits a lot for the female party wear clothing. Four hole button is attached at the front for closing and opening of the center front. At the bottom of the garment a rubber string is sewn so that the shape of the garment can be changed from A to O if it is tied.



Fig.25 The front view Fig.26 The side view Fig.27 The back view

3 Future Use

The approach for next two experiments will be approximately same. The preparation of fabric is in such a way as it is similar to the original plastic bag pattern. One garment is a coat, second is a skirt. Dark and neutral colors will be preferred for them. Two colors will be used for one garment one will be in major and one will be in minor so that this will enhance the overall look of the garment and make garment more attractive. As it is a ready to wear and party wear garment so the choice of colors will be classy and catchy. Silk fabric will be selected for these looks as they are shiny and will be favoured for party wear. The length of the coat and skirt will be increased and separate sleeves will be attached to coat. In the overall look one such element will be added that after pulling, closing or opening that element the over look and silhouette will be changed and give wearer a unique and interesting feel.

4 Conclusion

It is concluded from the study that plastic itself is a worse and most harmful thing as it is made of petroleum and also litter in the environment. The usage of it is not avoidable as it become the need of every individual but we can focus on its lesser and multi-usage. Throwing away plastic bag just after using for one time is waste of money as well as of the product which also cause harmful effects for the environment. By using one thing for several purposes can increase its usage and in this way may be we can make environment eco-friendly as after making draping patterns it is saved as a work and we don't throw into trash. That's why plastic bags are reused to make ready to wear female clothing to give it a multi use and to create new innovative, inspirational and unique designs rather than only using for one purpose and then throw it.

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