International Academy of Science, Engineering and Technology

IASET

Connecting Researchers; Nurturing Innovations

MOTIF DESIGNING USING CAD SOFTWARES & COMPARISON

Shalini Singh

Research Scholar, Centre of Computer Education, University of Allahabad, Uttar Pradesh, India

ABSTRACT

Fashion design has come a long way from the days when every level of the design process had to be completed by hand. Fashion software or computer-aided design (CAD) software is used in virtually every design house today. In the present work motifs have been generated by the the use of Wilcom software and is compared with the motifs developed using Reach Fashion Studio(3D) and CorelDraw(2D) software.

KEYWORDS: *Motif, Drawing, CAD, Fashion, Design*

INTRODUCTION

"Drawings have been developed along two distinct lines; artistic and technical. The artistic line has artists using drawings to express aesthetic, philosophic, or other abstract ideas. The technical has people using drawings to represent the design of objects to be built or constructed." This study will deal with the technical drawing.

Design is an intelligent human process ability, which can be executed in visual forms of expression. Though it seems to be a natural and inherent to somebody who has the talent for it, there lies behind it is a comprehensive list of required skills and information, which may even require mastery and utmost attention to detail. Design is related to the disciplines of engineering, in such a way that combining the two will render each other's output to be more functional and relevant to human needs. The computer evolution enabled our sense of space to be rendered through technology. As we know, design in the engineering context is executed manually by hand as drafters imagine it according to perspective. Using CAD, or computer aided design methods, perspectives, whether in 2D or 3D (2 or 3dimensional), are automatically rendered based on the use of predefined tools included. In addition, designs can also be manipulated for a better view, or according to what is required by the engineer or architect. The time and cost demands of using manually rendered technical drawings push architects and engineers to adopt more efficient ways of doing their design work. This is where computer aided design tools are beneficial. CAD reduces the time of conceptualizing design because of the ease in modifying drafts since it is done electronically. Visualization is one of the essential aspects of making high quality and visually pleasing design.

Design simulation supports a more purposeful execution of design, not just merely out of aesthetic considerations. Using a top engineering CAD software can combine both important aspects of design into one working environment, which makes it easier to transfer ideas into paper, and ultimately into a tangible output. Engineering CAD tools are being preferred to use nowadays, especially that competition is tight, and clients are more demanding. CAD tools make it easier to execute designs with greater accuracy, precision and quality. Various programs help designers create their own textile patterns, to see their fashions in three dimensions and create designs on the computer in less time than raditional sketching.

Fashion design has come a long way from the days when every level of the design process had to be completed by hand. Fashion software or computer- aided design (CAD) software is used in virtually every design house today. Freelance designers also make use of CAD software to complete different stages of their design cycle.

CAD software is used so widely in fashion design that it has become a vital tool of the industry. The fashion concept is the designer's fashion design in its raw form. A sketch of the concept or design is created by the designer. Fashion software is now an essential tool during this design phase.

Corel Draw is an intuitive graphics design application that gives designers a more enjoyable work experience. CorelDraw is built and designed to meet the demands of today's working designer to create ads or collateral for print or for the Web. Wilcom ES V9, the leading software application for embroidery industry design and manufacture. Wilcom ES is a suite of CAD/CAM tools providing a fast, flexible way to create, edit, organize and stitch out embroidery designs.

Sketching (drawing freehand without aids) is an essential tool every designer, especially the architect must possess to facilitate the generation, as well as recording of ideas and concepts. This could be evidenced from the huge sketches of past and present famous and successful architects, like Frank Lloyd Wright, Le Cobusier, Santiago Calatrava and Herman Hertzberger. Sketching and drawing are easy means of creating visuals and it has been identified that a designer's spatial ability is improved through sketching. Sketched diagrams focus on general information and encourage the designer to explore alternatives. Students' over indulgence in the use of computers in early formation of their minds as architects is detrimental to their fluency in sketching and thus their true creativity proficiency.

RESULT AND DISCUSSIONS

An attempt is made to create motifs using the Corel Draw(2D), Wilcom(Embroidery) and Reach Fashion Studio(3D) softwares. The motifs created by the Corel Draw have been recreated using commercially available Wilcom and Reach Fashion Studio CAD tools used in fashion industry. Different pattern of motifs are created using Corel Draw, Reach Fashion Studio and wilcom. To compare the motifs, one particular motif is created using the commercially available softwares and the results are discussed.

Figure 1: Motif is Created using Corel Draw

Figure 2: Motif is Created using Reach Fashion Studio

Figure 3: Motif is Created using Wilcom

Motif pattern is drawn by all the methods as described above. From the perusal of figures 1Corel Draw), 2 (Reach fashion Studio) and 3 (by Wilcom) it is clear that the motif drawn by Corel Draw lacks the finer details of the motif and color blurring is also apparent. Color perception is better in the output generated by Reach fashion Studio as compared to Corel draw but not better than the output generated by the Wilcom. The output generated by the Wilcom is better in the sense that the finer details of the motifs are more clear than that of the other software's and also the colors are bright which gives a better visual output.

Figure 4: Motif is Created using Corel Draw

Figure 5: Motif is Created using Reach Fashion Studio

Figure 6: Motif is Created using Wilcom

Parrot motif was also drawn through all the three methods discussed before. A perusal of figures 4,5, and 6 once again prove the superiority of result by Wilcom software.

CONCLUSIONS

The difference can be seen in figures given above. The motifs which were developed by Wilcom software are more clear and sharp. Motifs created through Corel Draw and Reach Fashion Studio software are designed manually through creating lines and sketches and requires repetitive changes like redrawing and erasing. The time taken to draw a

motif in Corel Draw or Reach Fashion Studio are time consuming whereas in the Wilcom, the same can be designed in a small time as compared to the other software's because the motif can be imported directly by corel draw. Therefore, it can be safely concluded that the motifs created through the Wilcom software can be easily created within no time and as per the user's specification. There are many softwares in 2D as well as 3D available in the market for motif designing. This

software shows better result than the other softwares in terms of clarity and sharpness. It is as sharp and clear as any 3D motif (created by RFS) and too superior to any 2D motif (Corel Draw). Although the range of colors used in this software is limited as compared to other softwares in the market, it is still the sharpest of motifs in this tool, if not superior, it is as good as in any software.

REFERENCES

1. https://www.crowdreviews.com/blog/the-advantages-of-computer-aided-design-over-traditional-drafting

2. Bilalis N., "Computer Aided Design", Jan,2000

3. Chester, I. (2007). Teaching for CAD Expertise, Journal of Technology and Design Education.

4. Emmanuel e. Oshike (mnia), Harmonising Sketching, Drafting and Cadd in Architectural Education in Nigerian Polytechnics: Case Study of Yaba College of Technology, International Journal of Science, Environment ISSN 2278- 3687 (O) and Technology, Vol. 4, No 1, 2015, 573 – 582.