

The Importance of Computer Aided Technologies and Brand Promotion in Dress Design

Stepan Alexandrovich Popov¹

¹Associate Professor, Russian State University of Tourism and Service, Russian Federation, Russia.

Abstract

This article discusses the importance of computer aided technologies and brand promotion in dress design. The subject of research is computer aided technologies in dress design. The research topic involves interrelations between fine arts and computer aided technologies, which should be considered as the basis of brand promotion in dress design. The research is aimed at revealing necessity of computer aided technologies as an inherent attribute in design. The research hypothesis assumes that interrelation between computer aided technologies and design is highly relevant and required at present. The integrated approach used for considering designer activity in connection with realities of technological progress, as well as the system approach used for revealing the interrelation between the theory of fashion industry and the designing practice, and stylistic and technological analysis were applied in the work. The techniques of dress design using professional computer graphics were described. The research results eliminate drawbacks in model development regarding creative dress design concept and visual presentation of collection for consumers. The relevance of computer aided technologies for modern design assumes various opportunities of application of these tools both in teaching professional disciplines and in creation of dress design. Development of computer aided technologies allows designing models by computer graphics, which assists development of fashion industry and education in total.

Key-words: Drawing, Dress Design, Designing, Fashion Design, Dress, Computer Aided Technologies, Brand.

1. Introduction

Technological advances, implementation of computers and new information technologies into all spheres of life and industry determine the demands for specialists corresponding to the level of development of information society, including the sphere of designing. Indeed, nowadays high-quality processing of graphics cannot be imagined without computers and appropriate software. Dress designers, as all designers, should master computer aided technologies and skills of analytical data processing, which promote active creativity and adaptation of specialist under changing conditions. The sequence of work on haute couture collection was described by Dior in his book "Christian Dior and I". When this book was published, this method of work on a collection was not traditional for fashion designer: he started not from fabric (designing new models by draping method) but from sketch, which was peculiar for working on collection of ready dress. However, subsequently even in haute couture houses the sketch became the leading method of searching for new concepts, and stages of work on a collection proposed by Dior formed a new tradition [1].

Computer aided technologies in dress design are a comprehensive tool at all designing stages starting from creation of creative and technical sketch, model designing and up to development of logo and brand advertising.

Computer aided technologies are very important for designing [14, 15, 16]. Computer aided technologies in dress design are mainly used as CAD tools. Modern CADs allow designing a basic structure by dimensions; drawing modelling; patterning of product details; grading of dress patterns; building dress pattern layouts; preparing design and technological documentation; predicting material consumption. Most modern CADs can design technical and creative sketch, select color composition of model, etc. [18, 19, 20] Even using standard graphical software, such as Corel Draw, Illustrator and Photoshop, designer can draw sketches of dress styles, make technical drawing of model, develop and classify dress patterns, prepare pattern layout on fabric for economical cutting.

2. Methods

During designing of a new dress model several interpretations of its image are created in order to avoid misunderstanding between designers and technologists: creative sketch; technical drawing [4].

Dress creative sketch is the image of collection models with detailed drawing of not only general dress shape but of its single elements; however, contrary to technical drawing, for this sketch it is important to present dress image.

Technical drawing is one of the most important types of illustrations used during model design to visually present the product. It accurately conveys the silhouette, proportions, design and details and presents clear, precisely drawn lines with a unified sense. Technical drawings are a form of communication between designer and manufacturer. Technical drawing is the dress image on plane without model figure, highlighting the design features, showing lines of segmentation and existence of decorative stitches, plackets and other details. It should be absolutely precise and schematic,

performed manually or by means of graphic editors. While developing technical drawing, it is possible to apply various line widths in order to represent texture in dress design [2].

Product range is also presented in the form of technical drawings in order to create correct presentation of design and color scheme of the entire dress range in the frames of season collection.

Lookbooks and price lists can also contain technical drawings and illustrations of podium products in order to show accurate dress interpretation to buyers. Technical drawings or photos are added to price lists as a visual presentation of dress model.

Technical specification, design documentation of model include technical drawing of model (front view and back view). If necessary, the internal view of product, internal pockets, rod pockets, shoulder straps and other elements is presented. Technical drawing can present dimensions of product parts required for dress fabrication and control measurements (length, width, distance). The team chart in addition to the used textile materials, finishes, accessories, fasteners, also presents a technical drawing of the model.

Technical drawings are often shown in trend-books with trends for the future period and on the websites of dress manufacturers. Visual merchandizers can use the technical drawings for product presentation in shops.

Fashion magazines with sewing patterns generally use technical drawing with front and back views so that the information about design and model details will be clear for each buyer. They are often accompanied by the applied color scheme. In addition, enlarged views of small details and side view of the product can be demonstrated. Therefore, a technical drawing is a form of graphical presentation of dress used by designer as well as in dress designing and manufacturing on commercial scale, in tailor shops, design studios, shops, fashion magazines and everywhere during discussion of fashion and garments.

In the existing market of professional graphical software, Adobe and Corel continuously strengthen their positions issuing new versions of their products. There are various applications of computer graphics. Special software is developed for each area, known as graphical program or packet. Despite the fact that for operation with computer graphics there are numerous software classes, only three types of computer graphics can be highlighted: bitmap, vector, and fractal [9].

Main pieces of software for operation with vector graphics in dress designs are Corel Draw and Illustrator. While comparing their interfaces, it is possible to mention that Corel Draw pays more attention to convenience and editing speed of applied effects. This is achieved by means of special interactive tools. In Illustrator the main attention is paid to creative development of sketches on the basis of numerous drawing tools. Interactivity allows to edit the effects directly on the object without dialogue windows: the result can be estimated immediately and corrected, if necessary [10, 11, 12].

Corel Corporation is a Canadian corporation, leading world software developer of office and graphical applications for PC. It was established in 1985 by Michael Cowpland. *Corel Draw* is a professional packet for creation of vector illustrations with possibilities to edit text, simulation and preparation of model. *Corel Draw* is intended for work with vector graphics and is the leading software among similar programs [17].

Adobe Illustrator offers various tools for creation of vector images: from the finest nib strokes to imitation of brush strokes. Meanwhile, the specificity of vector graphics is far from manual drawing; thus, it is necessary to know how to create and to edit vector contour (to add and to remove reference point, to modify shape, etc.).

3. Results

In addition to development of various sketches (creative, technical), computer aided technologies are applied for development of moodboard, lookbook, brand book.

Brand is a marketing term, symbolic embodiment of information related with certain product or service. It is usually comprised of name, logo, and other visual elements (fonts, color schemes, and symbols).

Brand book implies documented rules of development and basic identification of trademark. Brand book is always considered not as a separate document but as an inherent constituent of document package for a trademark comprised of two mandatory constituents. The first one describes the trademark platform, including mission and philosophy of the mark, its values, key identifiers, description of message, channels and methods of transfer of this message. The passport of standards defines the rules for visual identification of the trademark, the use of corporate identity elements, defines consistency of perception of main identification elements, stylistic and color decisions.

Brand book allows improving the quality of communication among company employees, its partners and customers to radically new level. It gives answer to many questions. Is it possible to transform trademark (logo)? How to position correctly the logo in printed materials and souvenirs? How should sales outlets look and how should employees be dressed? While reading a brand book, always bright and concise at the same time, it is possible to plunge into magnificent world of advertisements and to know interesting facts about creation of advertising image and its fixation in perception of possible consumers.

The most approved definition of brand was given by the American Marketing Association: name, term, sign, symbol or design, or a combination of them intended to identify the goods and services of one seller or a group of sellers and to differentiate them from those of other sellers, as well as to distinguish goods or services from those of competitors. This is a legal definition adopted in laws and legal practices of most countries. However, this definition does not include one of the main components of brand: a human in whose consciousness it emerges [8].

Brand is not a thing but a product, company or establishment. Brands do not exist in real world, they are mental structures. James R. Gregory in his book, LEVERAGING THE CORPORATE BRAND, wrote: "We define a brand as a trademark, which represents to consumers a particular and appealing set of values and attributes. It's much more than a product. Products are made in a factory. A product becomes a brand only when it stands for a host of tangible, intangible and psychological factors. A key point to remember is that brands are not created by the manufacturer. They exist only in the eye of the beholder, the customer" [3].

Charles Brymer, CEO of Interbrand Schecter, believes that "A brand is more than just advertising and marketing. It is nothing less than everything anyone thinks when they see your logo or hear your name". Paul Feldwick, Executive Planning Director at BMP DDB, Worldwide Brand Planning Director of DDB, defines brand as identifiable product, service, personality, or place, created so that a consumer or a buyer perceives its unique added value, which meets their demands in the best way.

Brand book in its essence is a long-term investment of money. For instance, nobody applies efforts in order to search for a bottle of Cola of certain manufacturer because of:

- One and the same bottle for a long time;
- Constant logo;
- Constant color.

There are certain advantages of constant style:

- Savings during duplication;
- No need to maintain the staff of highly paid designers;
- No panics during emergency placement or before exhibition.

Therefore, upon creation of dress trademark, it is required to develop a brand book intended for company employees involved in brand promotion in market. First of all, the brand book includes description of values and features of brand (ideology), as well as methods of their transfer to consumers. The brand book describes the trademark platform, including its mission and philosophy, its values, key identifiers, description of message, channels and methods of transfer of this message. This block is important for experts in brand management, marketing, advertisements, and PR. As a rule, the brand book is a closed document, which formulates specific advantages of product and features of busines processes in the company. This document is a trade secret.

An important section of the brand book is its legal part specifying its authors' and adjacent rights, rights to registered trademarks, marks of service and geographical indications used by the company, specifications of requirements to design, elements of corporate style or trademark.

Dress brand book is a necessary initial stage in formation of corporate style. Brand book includes all recommendations on the use of corporate fonts, logo, colors, pattern of documenting, description of employee uniform, labels, invitations, etc.

Dress brand book can include logo, variants of business cards, designs of envelopes, notebooks, letterheads, original packing, examples of fabric and carboard tags, invitation to the fashion show or other events, examples of branded clothing for staff.

Development of brand book is important regarding widespread location of corporate offices. In company offices anywhere the adherence to the recommendations to maintain total look depends on quality and competence of the brand book. If the brand book pedantically displays values, color schemes, purpose, design, placement and standards of this or that presentation material, billboard, signs on office doors, emblems and souvenirs, letters and documents, personnel ID cards and other details of corporate style, then it is possible to state that development of the brand book will bring benefits. Third party designers, mass media reporters or other representatives of advertisement sector will not be able to display with impunity a color or font that does not match the corporate style. Printed products will also be produced in accordance with the established norms, no editing will be required at the company's expense; hence, money and nerves will be saved. Timely creation of brand book allows to transfer responsibility for proper implementation of obligations to ad makers cooperating with the company, since all style requirements are documented in the brand book.

Brand book creation is a very important stage, since it requires for maximum accuracy. Brand should be memoizable, the corporate success depends greatly on the brand book rationality. First of all, the brand should be associated with certain color, supported by certain slogan, and then the logo image will be formed automatically in human consciousness. This is a well thought-out corporate

identity, which makes the brand recognizable. In order to prevent random modification of any constituents of this recognition, it is required to develop brand book, where each detail of company style is specified and recorded [6, 7, 8].

Lookbook, or style book. There are numerous variants of lookbooks.

One of the variants is celebrity fashion, when a stylist decides what items and accessories to buy in order to create style as close as possible to the style of celebrity.

Another variant of lookbook is developed for convenience of buyers during purchasing of items from a new collection. As a rule, while launching a new collection, designers create lookbooks, where new designs from the collection are shown on models so that it can be understood how the clothes fit a person and what they can be combined with.

On the Internet at various women's sites regulars periodically post photos of stylish and unusually dressed people. This is also a kind of lookbook. As a rule, these photos can be met in such sections as "Fashion of N city". Such photos can be published in fashion magazines.

Nowadays it is usual and convenient to order clothes online. Online trades are quite popular. In addition to clothes photos, such shops also publish collages of the presented products. This is another variant of lookbook.

Each dress design upon production of a new collection is accompanied by a list of lookbooks for buyers. Each season collection has its lookbook. It makes possible to evaluate and to predict possible popularity of manufacturer in market for the given season. This also assists is creating an overall impression of the dress brand and its target audience.

Stylish lookbook can be a synonym of portfolio, when we are talking about a photo of one particular model or photographer.

Lookbook is aimed not only at presentation of nice photo of dress but creation of definite image and style. Prior to create a lookbook, it is required to consider general mood and impression, which should be presented in the photo. If this is the lookbook for certain dress brand, then it is required to take into account style and manner of presentation of this brand.

Moodboard is visual presentation of design project, comprised of images, descriptions, samples of fabrics, etc. It serves for reflection of general mood and topics of a future collection, promotes efficient communication among the members of creative team, the performer and the consumer. It is often made in the form of collage. Moodboard can be applied as follows:

- For self-expression (to reflect one's mood);
- For various presentations;

- As creative process, for resting and switching;
- For detection of style orientation. For instance, for a fest (birthday, wedding);
- For selection of external image (clothes, creation and tuning of style);
- As a tool inspiration.

Moodboards are mainly used by designers both during collection designing and for project presentation, for instance, for presentation of collections (in fashion industry) or website concepts (in web design). In addition, moodboards are used in the creation of magazines (especially glossy ones), scheduling photo sessions [13].

Moodboard is a collage of photos and drawings, sometimes texts, reflecting the main concept of project, a kind of visual illustration of what the author tries to convey. The term itself gives excellent understanding what should be done.

At present, interactive moodboards made on PC are becoming more and more popular. Moodboards can be developed by means of Adobe Photoshop, when an electron variant is required: for work, online presentations, social networks, as illustrations in websites. In addition, moodboards can be developed using online services, for instance:

- Pinterest;
- Moodstream;
- Moodboard;
- MoodShare;
- Gimme Bar;
- Mural.ly;
- Evernote.

4. Discussion

It is required to distinguish between legal and psychological approach to brand. From a legal point of view, only trademark is considered, defining product manufacturer and being legally protected. In terms of consumer research, brand is considered as information in consumer memory. Sometimes it is believed that the synonyms of brand are trademark or tradename. Previously, the term 'brand' was applied not to all trademarks but only to widely known. At present, this term in mass media is used as a synonym of trademark, which, according to the opinion of patent specialists, is not

quite correct. According to the opinion of experts and lawyers in the field of trademarks, the notions 'brand' and 'branding', strictly speaking, are not legal notions but the terms used in consumer environment to combine the stages of goods promotion in market. They believe that the notion of brand is a certain combination of objects of copyright, trademark and tradename.

5. Conclusion

In conclusion, it can be stated that the main research objectives have been achieved:

- Analysis of various opportunities of aided technologies in design of dress brand has been performed;
- Necessity of application of various graphic packets has been analyzed in order to present brand, mainly as a tool assisting designer to bring artistic images into reality;
- Application of various software and design means has been substantiated upon dress designing and brand promotion;
- Opportunities of computer graphics have been demonstrated for fashion industry and brand in whole as an efficient marketing strategy;
- Visual communication has been analyzed as an inherent portion of brand image.

The discussed examples from the history of creation of various dress design brands demonstrate that application of computer aided technologies is being widely developed and provides great potentials for future brand development. The relevance of computer aided technologies expands various opportunities of application of major principles of modern design in teaching of professional disciplines for designers, who will devote themselves to fashion design industry in the future.

References

Ermilova, V.V. (2010). Fashion design and styling: Textbook for secondary vocational education. V.V. Ermilova, D.Yu. Ermilova. Akademiya: Moskovskie uchebniki, Moscow.

Yu, E.D., Ermilova, V.V., & Lyakhova, N.B. (2019). Dress design: Textbook (Moscow, 2019). Ser. 58 Bakalavr. Academic course (3-red edition, revised and supplemented).

Gregory, J.R., & Wiechmann, J.G. (1997). Leveraging the Corporate Brand. NTC Business Books, 60-65

Dress design as a tool of visualization of territorial brand. (2017). Ergunova O.T. In: Studies and development of young scientists in solution to urgent issues of the 21st century. *Collection of articles*. Ed. by O.T. Ergunova, A.Yu. Titovets. Ekaterinburg. 24-33.

Timofeeva, M.R., Sh, A.A., Tolmachyova, G.V., Yu. L.G., Sosnina, N.O. (2019). Strategies of development and promotion of commercial collection in the program of master training, Profile: Dress design. *Sovremennye problemy nauki i obrazovaniya.* 2, 60.

Dubenkova, M.V. (2015). Marketing communications in promotion of fashion industry (as exemplified by MANGO brand). In: Modern marketing technologies. *Proceedings, Conference of young scientists.* Ed. by T.G. Benderuk. 55-59.

Ledenyova, K.A., & Gorbunova, O.N. (2016). Brand: Its definition, its constituents, branding under modern conditions. In: Global issues of modernization of national economy. *Proceedings, 5th International conference (distance)*. In 2 parts. Ed. by A.A. Burmistrova, 252-258.

Sadriev, R.D. (2007). Brand: its definition and role in company business. *Marketing v Rossii i za rubezhom*, 1, 58-67.

Veksler, V.A. (2018). Programming elements for development of bitmap, vector and fractal images in computer graphics. *Nova Info. Ru.*, 1(90), 189-196.

Aver'yanova, O.S., & Yu, B.I. (2017). Confrontation of bitmap and vector graphics. *In: Scientific and practical aspects of development of modern engineering under innovation environment. Proceedings of International conference*, 4-6.

Golyakovskaya, T.P. (2010). Foundations of vector graphics, Textbook for university students specializing in Design; Ministry of Education and Science of the Russian Federation, Novosibirsk State Academy of Architecture and Fine Arts.

Burashnikova, M.S. (2019). Potentials of implementation of computer-aided and AR technologies in fashion design sphere as a tool of formation and maintenance of patriotism. *In: Image of the Motherland: content, formation, actualization. Proceedings, 3rd International conference.* 508-512.

Domracheva, A.O., & Ivshin, K.S. (2019). Moodboard as a functional unit of design of commercial fashion collection. *In: Fashion and design: historical experience – new technologies. Proceedings, 22nd International conference.* 178-181.

Bastov, G.A. (2016). Technologies of graphical transformation of objects using computer graphics. *Dizain i tekhnologii*, *51*(93), 6-12.

Lavrent'eva, O.S. (2016). *Role of computer aided technology in design education. In: Culture, fine arts, education in education space of the third millennium: challenges and opportunities.* Collection of scientific works of the faculty of fine arts and sociocultural activity, Russian State Social University. Ed. by I.A. Korsakova, N.I. Anufrieva. Moscow, 2016. 331-334.

Utishev, E.G. (2003). Computer aided technologies of pictorial geometry for Design specialty. *Izvestiya TRTU*, 1(30), 214-216.

Yu, S.M. (2009). *Computer aided technologies in design on the basis of CorelDraw*. Textbook for students specializing in Design; National Research University of Electronic Technology. Moscow.

Kravchenko, I.A., & Obertas O.G. (2013). On the use of computer aided technologies in designing. Territoriya novykh vozmozhnostei. *Vestnik Vladivostokskogo gosudarstvennogo universiteta ekonomiki i servisa, 3*(21), 205-210.

Kulenenok, V.V. (2010). Information technologies in design: Computer aided design. Vitebsk.

Seitkazieva, N.S., & Karagulov, D.K. (208). The Use and Development of Computer Technology in Education of the Specialty Design. *Vestnik Kyrgyzskogo gosudarstvennogo universiteta stroitel'stva, transporta i arkhitektury im. N.Isanova, 4*(62), 50-54.