TECHNOLOGICAL ASPECT OF GRAPHIC DESIGN

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Abstract: In this paper the difference between design and art have been compared with the base principles of each skill. From the technological point of view graphic design has been diversified and the differences between art and design were clearly identified. The stress was on technological stages and points which should be relevant in graphic designers' education.
Key words: graphic design, art, reproduction technology

1. INTRODUCTION

The difference between the design and art is convoluted and has been debated for a long time. Designers and artists both create visual compositions using a shared knowledge base, but their reasons for doing it are entirely different. Many designers are artists and many artists are designers but the line between the two is complex and intriguing. So what exactly is the difference between design and art?

In this paper, it will be diversified and compared some of the base principles of each skill.

2. BACKGROUND

Design is all around us: explaining, decorating, identifying. It communicates with the audience in order to send them and present a message, to get the important statements forward. It could be seen in everything what is readable, in road signs, magazines, advertisements, different package forms, textiles, logos, etc. Communication strategy, the essence of graphic design, can be jeopardized by poor choice of colour (Triedman & Dangel Cullen, 2002), text, type, image or illustration, layout or even reproduction technology.

Graphic design performs a number of functions. It sorts and distinguishes, informs, acts on the cultural and socio-psychological emotions of the audience. The main purpose is to motivate the audience to do something: buy a product, use a service, visit a location, and learn certain information. The most successful designs are those that most effectively communicate their message and motivate their consumers, audience, to carry out a task. On the other hand, the main purpose of the artist is to create a work, to share their feelings and impressions with others, to allow the viewers to relate to it, learn from it or to be inspired by it. The most renowned works of art today are those that establish the strongest emotional bond between the artist and their audience. But who is the audience? There is no specific audience in art, no one to diffuse, set an objective or define it as successful or not, to call the purpose of the work.

In his work, the artist is creating his own rules. It should express an emotion and it does not have to adhere to any specific rules. He can express a single thought or feeling such as frailty or power, love or pain and the composition simply by his hand. The artist is free to express themselves in any medium and colour scheme, using a number of methods to express their emotion. No artist ever has to explain why they did something on a certain way, as their work expresses what they felt in the

certain moment by using the best portray of their feeling, emotion or message.

One can say that the fundamental difference between art and design is obviously on their purposes. It can be said that good design will motivate the audience and that good art will inspire its audience.

3. TECHNOLOGICAL ASPECTS

Commercialism, trends and growing technology have been dictating the course of design and made a clear line between the designer and the artist.

In today scenario, technology is present in every sector and it could be present in every artistic work. The artists could, if they are willing to, use the advantages of reproduction technologies to enhance the value of their work, or to swiftly carry out his work. Even somebody's' passion and emotion can be dragged to a higher level with the help of advanced reproduction technology. On the other hand, do the artists really need this kind of preceding their work?

Nowadays, the understanding of graphic design has to be involved with its commercial sense and it has to be defined as a strictly calculated and defined process. It is discussed among a specially educated team and implemented taking careful steps to make sure the objectives of the project are to be presented in the specific way. In this surrounding, designer is similar to an engineer in that respect and must not only have an eye for colour and style but must adhere to very intricate functional details that will meet the objectives of his work.

Graphic design and its technological aspects clearly identify the differences between art and design and define a very clear line drawn between the two. Most of the graphic design projects have a detailed set of instructions for its reproduction and most design works are based on current cultural trends and influences in the society.

On the other hand, an artist could never be given any specific instructions in creating its work because his emotions and impressions are defined by the movement of his hands and the impulses for the usage of the medium. No art director is going to yell at an artist for producing something completely unique because that is what makes an artist an artist and not a designer.

4. SIGNIFICANCE OF THE STUDY

Considering the fact that graphic designer, opposite from an artist, is confronted to many technological boundaries, their free expression cannot exist in isolation from the reproduction process. With this awareness, graphic designer's creativity will be able to come shining through.

An understanding of all stages in graphic reproduction process will enable them to express their ideas in most amazing way and to completely express their creativity. On the other hand, understanding of the reproduction process will prevent

graphic designer's work from failing for technological reasons (Pipes, 2009).

The study aimed to identify and rank of the main technological aspects for graphic designers which need to be taken under consideration upon their creative process. They should be aware that their work, the idea, will undergo through several transformations before ending up in a printed and finished publication. Not so long ago, graphic designers used to just sketch rough layouts covered with key lines and instruction to the print houses, and hoped for the best. Nowadays, it is expected from designer to do more, to create its ideas in a computer generated form with a good idea and overview of how the printed result is going to look.

Over the past decade, there has been an unmistakeable trend in printing houses to downsize prepress department (Waite, 2006). In this situation, designers are forced to be familiar with the graphic reproduction workflow including conventional, digital, and hybrid technologies.

Designers' style should be of overall excellence and their identifying symbol based on the specific usage of the combination of all the particular choices of typefaces, usage of materials, colours, illustrations, photos and so on. They should be aware of all the advantages and disadvantages of different technologies in order to know how to use them and produce a product of their creativity. Even the knowledge of different reproduction possibilities could form their direction and lead them from their creative though and brainstorming to the finalised product.

Otherwise, people who worked in prepress will decide about, and have the knowledge about the interaction between the used printed materials, used inks and reproduction stages which will affect the final product. They will be the executors of designers work and idea with the possibility to adjust the reproduction processes to their ideas, which could be (and in most cases is) in disproportion and do not mach to the designer's project. In this situation designer cannot possibly know all the interactions and transformations between the printed material (paper, paperboard, plastics, etc.), ink, processes in prepress, press and finishing stages. In fact, he may not even know which printing company is going to reproduce their work.

On the end, no matter how motivating, trendy, strait and inspiring designers work will be, reproduction process could result in a product that does not meet the customer needs.

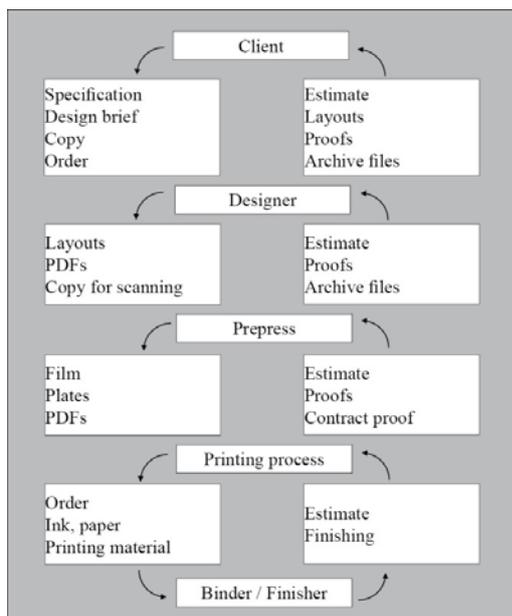Fig. 1. presents main stages in reproduction workflow.

Fig. 1. Reproduction workflow

5. METHODOLOGY

Due to the fact that new technologies give the designer a broader overview of possibilities to reproduce their creative thought one can say that the good design will be result of knowing the all stages within technologies with all crucial factors which could jeopardizes or even more improve their project.

There will always be a question how much technology is enough for graphic designers? To answer that question B.Sc. students at Faculty of Graphic Arts University of Zagreb were asked their opinion.

Thirty students were asked and twenty-eight answered that the knowledge of reproduction technology is essential for designers. Majority of them answered that the knowledge of the processes in prepress department is essential for designers. It was mentioned: ability to prepare layouts, designs, and graphic art works; knowledge of relevant hardware, software, and file formats; knowledge to develop various types of illustrations such as line art, technical, half-tone, colour, etc.; knowledge of methods for reproduction of colours, including densitometry, half toning, scanning.

Designer should know how to make a proof of its project, including the role and limitations of various proofing systems and the analysis of proofs.

Most of the students answered that designer should know what the tone correction is; the tonal value increase; the maximum and minimum effective dot sizes according to the technology; tone range compression and the characteristics of substrates and inks. Knowledge of film and platesetting, image transfer systems, including an introduction to offset process, gravure, letterpress, flexographic, screen processes, and direct digital devices were selected. Only few of students mentioned the knowledge of finishing processes.

6. CONCLUSION

This paper stresses some main differences between the design and art. Designers and artists both create visual compositions using a shared knowledge base, but the reasons for doing it have been entirely different.

According to the students' comments and clear overview of this paper one can conclude that the basis education of the graphic designers should be in certain relation to the reproduction technologies. Education of future graphic designers' should be based on this methodology. By learning to think and be aware of the designer's idea and the creative process on the one side and reproduction options on the other side, producing a final product will result with effectiveness and efficiencies in wide variety of circumstances.

Further research of this study should be directed to the expanding the number of studends included in research, and further more, in implementing the methodology mentioned in this research into the real education environment.

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