

**DIGITAL DESIGN: BASIC GRAPHIC DESIGN PRINCIPLES IN A DIGITAL
ERA**

A CREATIVE PROJECT

by

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Abstract

The study of graphic design has had numerous advances over the past few years. Technology has prompted a necessity to re-learn certain aspects of the craft. This writing will ensure the reader that the basic foundations of graphic design are still necessary, considering the introduction of new mediums for production and presentation. Topics include traditional design vocabulary, problem-solving methodology, standard typographic principles, color theory and representative areas of employment in the graphic design industry. Together these explorations will lead to the advancement of a greater knowledge in your graphic design education. As new technology dictates change in how we practice our craft, the traditions of the foundation remain a permanent part of professional design practice.

Creative Project Description

The creative project outlined below will be a combination of work by two authors, Assistant Professor Douglas J. Hydelund, and Professor Dr. Ron M. Labuz. Dr. Labuz is the author of 13 books and has taught typography at Mohawk Valley Community College since 1981. Mr. Hydelund has been a teacher of graphic design and typography at Mohawk Valley Community College since 1992. The audience for this textbook is the design student, the entry-level designer and the practicing, working graphic designer in the twenty-first century. I will handle general design vocabulary and the traditional steps that are useful in any graphic design. Dr. Labuz will provide information on the new technologies and digital processes that have become a mainstay in the new world of the graphic designer. This combination of information is required for anyone studying and practicing graphic design today. As perpetual as the theme suggests, the language of the text will present a clear and concise introduction to graphic design.

Textbooks of this nature tend to be utilized throughout high school design courses and college graphic design programs. Practicing designers struggling to bridge the gap between traditional and electronic mediums will

find the book particularly useful. Content will cover the broad categories of both media.

As a technical and practical introduction, the text, entitled "Digital Design: Basic Graphic Design Principles in a Digital Era" will focus on traditional design ideation methods while confronting the technologies that are changing the way we do graphic design. For many, the computer is rapidly becoming the preferred medium. For many others, it is the only way to design. There is every indication this trend will continue. In the next several years, the computer will completely overtake our tried and true traditional methods. Few of us will continue to work with pencil and paper, but everyone must remain aware of the importance of fundamental concepts and advanced design theory. Various stages in the ideation, production, and pre-press procedures will individually give way to the computer. For the second time in history, the basic way we produce visual communication has changed. The first change we can document was Gutenberg's innovative printing press and his early printing technology. This fact is widely accepted among all those who have studied graphic design history. This book will sketch the way the second dominating change has happened. Processes such as digital conceptualization, computer production and task oriented

software applications have all influenced the new designer. All of these formidable transitions toward the new process of design will be documented and recognized within the text.

Traditional vocabulary is still required to help supplement the changing profession and conquer computer based design applications. Necessary and common design terms are included and discussed for this reason. Designers and clients still need to be traditionally educated. Most digital software packages include traditional terminology as a basis for learning the various commands and palettes. Software manufacturers also publish standard traditional terms within the accompanying manuals; they do this because the only terminology we have is the traditional terminology. The terminology from this text is the same as that presented within the pages of software manuals and on their computer screens.

This book will explain, in simple, non-technical terms, the way in which we now design. The vocabulary required of a digital designer, who must work with the service bureau, client, and printer, and the technology we use must be studied and learned. This new vocabulary must also be presented to the reader as supplemental to the old. Because the way we work has changed, the way we communicate

about design has changed. This book is a primer for the new designer.

As stated above, the text will begin with the vocabulary we have inherited from traditional design. Concepts and visual techniques such as form, repetition, structure, proportion, scale, balance, and contrast will be discussed. The reader will also be introduced to a new way of working as a designer, with form and type - a working method. New ways of working, such as sketching on screen, will be documented. Design is not a simple activity. It requires both creativity and a technical understanding of the media. In this book, both the technological requirements and the ideational foundation of graphic design will be introduced.

After the groundwork is laid, the book will cover several broad areas. After we examine and explain the traditional methods and structures that impact design, we will then discuss desktop publishing, digital photography, hypermedia, digital printing, computer illustration, and digital pre-press. Each of these technologies has recently changed the way designers work. We will study each technology and discuss what the technology is, how it works, and how it affects your design. Students within graphic design programs and those within the design

community will benefit from both the traditional aspects and the new media explained in this textbook.

Continuing, we will look at the various ways in which contemporary designers have used technology to create. The computer can be visible or invisible in the finished piece. Focusing upon the work of significant individual designers and design groups, we will provide the reader with a glimpse at the merger of technology and contemporary design. Although a complete list of designers has not been created, the work of April Greiman, Nancy Skolos, Emigre, Takenobu Igarashi, 8vo, and the MIT Media Laboratory will be included. Their inclusion is necessary for today's designer to help recognize the new advances in graphic design. It is recommended that the aspiring designer witness, first hand, the impact inherent in the work of the professional. With this visual knowledge, their next design may become their best, conceptual work.

The book should emulate successful tech-books. Features of such books include easy-to-understand language, contemporary coverage of technology, completeness and, perhaps most important for today's visual artist, graphics. Reproduction of exemplary design will be necessary. These reproductions will include graphics created by the authors, photographs of equipment, and the reproduction of published

graphic designs. Illustrations such as the basic color wheel; examples of symmetrical and asymmetrical compositions; tables and charts; and other representational icons to help the reader visualize each concept presented. Full color will be useful; if full color were impossible, spot color could be used with good effect throughout the book. The inclusion of a color signature bound in the text may also become necessary if cost becomes an issue in publishing the work.

Between the two authors, all subjects regarding the topics will be considered, analyzed and presented to the reader. Experiences of each contributor will be documented. As a co-authored work it will be imperative that the authors work together to provide a coherent structure and comprehensive presentation of the information pertinent to the topics. Without such synergy the book will fail in its purpose. Two creative minds will work as one in order to provide the information the reader needs and anticipates. The designer becomes the most important audience here, not necessarily the receiver of the designed advertisement, logo or billboard. However, this text will help each participant gain the knowledge to learn how visually appealing design becomes information for the masses.

There is little competition for a volume covering the specific topics proposed for this book. Most information regarding these topics is presented either in the form of a traditional text on graphic design, in magazines, or through annuals purporting to document what is happening in contemporary design. There are several associations which may be interested in co-publishing or purchase, including American Center for Design, Graphic Design Education Association, and American Institute of Graphic Arts.

The following is a brief description of the chapters that will be written and presented by the authors. Once again, the traditional aspects of graphic design theory are outlined first. The digital technologies follow. The writing duties are split based upon field specific expertise in each of the areas presented. Therefore, some of the material has been modified from the original table of contents attached to the final project proposal.

In chapter one the reader will start with an introduction to graphic design and a discussion of the profession. As an introductory chapter, it offers a glimpse of the basic operations and tools required in becoming successful working in this field of dedicated craftsmen. The chapter focuses on the background of the profession coupled with a historical perspective of graphic design and

technology. Digital design must also be a component of the overall introduction.

In the second chapter we will present the terminology and vocabulary used within the industry of graphic design. As complex as the vocabulary is at times, we will simplify the task for the reader by providing definitive answers to the questions which beginners should be asking. The majority of terms are formulated with descriptive analogies explaining their meaning in the design profession, past and present. It has become the lengthiest chapter due to the fact that there are numerous terms that must be addressed to gain sufficient background. Subjects will include conceptual, visual, practical and relational elements of design, line usage, categories of shape, types of contrast, categories of composition and repetition. All of these subject areas must be addressed in order for the designer to learn the craft.

The highlights of the third chapter reflect the need for a structured problem solving methodology. This chapter will include the research stage, brainstorming, sketching and the necessary development that leads to a finished design. General introductions to digital applications have been included within this chapter because they are a means of reaching the end product in graphic design today. The

production of a design may be assembled using many different components working in harmony, both conceptually and digitally. We will discuss each of these avenues toward design success.

Typography is an element in most compositions and will be analyzed in chapter four. Specifically noted are passages detailing the parts of a letter, type measurement, standard line lengths, kerning, type fonts, type families and type selection. Many novice designers tend to accept default digital availability and do not realize the impact a certain typeface has upon their final design, and, more importantly, the target audience. We will address these common faults and suggest new methods of preserving the dignity of purposeful typographic application.

A dedicated chapter on color has been included. Color has a major impact upon any design. Chapter five includes a basic introduction to color theory. Historical and technical terminology is combined in a common language. The novice designer must attain a basic knowledge of color use. Color illustrations, diagrams and charts will be incorporated in the text to illustrate the vibrant aspects of color. All may be studied and applied at the designer's discretion. Computer based color selection and the color matching systems prevalent today are necessary tools. The

designer utilizes them on a daily basis. These industry standards will be discussed.

The next chapter outlines specific jobs in the graphic design industry. It contains descriptions of common design problems and offers suggestions for successful solutions. Newspaper, magazine and book designs are among the jobs that are plentiful and offer great opportunities for a designer to combine typography and imagery. Additional vocabulary accompanies these passages. Corporate identity is outlined along with theories of logo development. Various other jobs round out the chapter, including poster design, signage, advertising and environmental design.

The digital aspects of graphic design consume the majority of the chapters that remain. The invitation to address technology as it relates to graphic design is warranted and necessary.

The main emphases in this book will be the analysis of how technologies work, how designers use those technologies, how designers should use technologies, and where we may be going in the future. Because the tendencies of the designer have moved beyond working on paper, the book will thoroughly discuss the variety of ways we know, see, and communicate visual information. Digital design is the way it is being done.

We now do digital design on screen, in hyperspace, on multi-media, and on paper. The printed word remains an important medium for expressive design; however, additional brief discussions in the design of audio, video, animation, and presentation graphics are necessary. This book will survey all of those possibilities.

This text would not be complete without the inclusion of a chapter on design hardware and design software. Many options are available for the working designer. Platform choice, the workstation, scanners, printers are among the hardware considerations. Software applications also offer choices for designers working in the digital world. The most popular applications will be mentioned as a way to introduce the designer to the software now in use throughout the industry.

An understanding of print production processes is mandatory for the digital artist. Once the design is complete, the artist must deal with the service bureau, the printer, and the paper manufacturer as well as other professional vendors. A chapter will be dedicated to studying pre-press procedures such as halftones, trapping and color separation. This aspect of the designer's role is crucial in order to learn to effectively communicate with

each vendor and to coordinate the overall design at each step of the production and printing process.

Towards the end of the text we will examine questions of design theory. Topics will include ethics and semiotics as they relate to design. In obvious ways, an ethical approach to graphic design is required (if only to avoid copyright infringement, for instance). Semiotics is the theory of signs and their referents. Every design functions within society and in the world we live in. We will introduce the reader to new ways of seeing, all of which impact the spectator or audience.

A brief introduction to the future of graphic design as it relates to new media will complete the text. The learner will help to create design in the future and provide new answers to new-age design problems. This will be the closing chapter: a suggestion to the young designer that they have the responsibility to be fully prepared as they create our design future.

The authors will also prepare the design of the book, working with production and design staff and directly with the publisher. A serif typeface will most likely be utilized for legibility reasons. Captions will be included for each graphic. Manuscript illustrations may be provided on disk, paper, or as Linotron film or paper output. Since

the book will be typeset electronically, illustrations, graphics and reproductions of art may be flat-bed or drum-scanned. This will ensure that quality can be monitored and fulfilled. The authors, who will also secure reproduction permissions, will provide all illustrations to the publisher for reproduction.

This text is needed to explain the importance of foundation principles and technological advances to the student. Perhaps more importantly, it should be a book that inspires those that seek new information on the subject of digital graphic design. It will also hold true to those steadfast, traditional principles of design that determine what graphic design past and future is and will be. We will provide the necessary information to introduce both the traditional and digital arenas of today's graphic design world and explain how they fit together.