

Graphic Design and Print Production Fundamentals

Graphic Design and Print Production

Fundamentals Graphic Communications Open Textbook Collective

Wayne Collins, Alex Hass, Ken Jeffery, Alan Martin, Roberto Medeiros, and Steve Tomljanovic

BCCAMPUS

VICTORIA, B.C., CANADA

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Introduction

Ken Jeffery



Figure I.1 Car graphics are an example of modern day print design

On any given day, you can look around your surroundings and come in contact with print design. Information comes to you in many forms: the graphics on the front of a cereal box, or on the packaging

in your cupboards; the information on the billboards and bus shelter posters you pass on your way to work; the graphics on the outside of the cup that holds your double latte; and the printed numbers on the dial of the speedometer in your car. Information is communicated by the numbers on the buttons in an elevator; on the signage hanging in stores; or on the amusing graphics on the front of your friend's T-shirt. So many items in your life hold an image that is created to convey information. And all of these things are designed by someone.



Figure I.2 Times Square has many examples of print design

Traditionally referred to as graphic design, communication design is the process by which messages and images are used to convey information to a targeted audience. It is within this spectrum that this textbook will address the many steps of creating and then producing physical, printed, or other

imaged products that people interact with on a daily basis. Design itself is only the first step. It is important when conceiving of a new design that the entire workflow through to production is taken into consideration. And while most modern graphic design is created on computers, using design software such as the Adobe suite of products, the ideas and concepts don't stay on the computer. To create in store signage, for instance, the ideas need to be completed in the computer software, then progress to an imaging (traditionally referred to as printing) process. This is a very wide-reaching and varied group of disciplines. By inviting a group of select experts to author the chapters of this textbook, our goal is to specifically focus on different aspects of the design process, from creation to production.

Each chapter begins with a list of Learning Objectives, and concludes with Exercises and a list of Suggested Readings on the Summary page. Throughout, key terms are noted in bold and listed again in a [Glossary](#) at the end of the book.

In [Chapter 1](#), we start with some history. By examining the history of design, we are able to be inspired by, and learn from, those who have worked before us. Graphic design has a very rich and interesting heritage, with inspirations drawn from schools and movements such as the Werkbund, Bauhaus, Dada, International Typographic Style (ITS), as well as other influences still seen in the designs of today.



Figure I.3 Johannes Itten was a designer associated with the Bauhaus school

We now work in an age where the computer has had an influence on the era of Post Modernism. Is this a new age? Are we ushering in an era unseen before? Or are modern-day designs simply a retelling of the same tropes we have seen for hundreds of years?

[Chapter 2](#) follows with a discussion about the design process. Contrary to what we tend to see in popular television shows and movies where advertising executives are struck with instant, usable, and bold ideas, design strategies are seldom insights gained through such a sudden outburst of inspiration. The design process is a deliberate, constructive, and prescriptive process that is guided by specific strategies. For example, before any piece of designed communication can be started, some very detailed research needs to be performed. This happens well before any graphic design or layout software is opened on a computer. Designing is a form of problem solving, where a system is created to communicate a specific

Graphic Design 3

and targeted message. The design process is the way that a designer breaks the problem into discrete creative activities. First is an exploration of what is trying to be achieved. Facts are gathered about the problem, and the problem itself is often defined very specifically. The idea phase is where brainstorming and ideation occurs, often without judgment, as a way to gather as many different ideas and directions as possible. From this, solutions are evaluated, both for their perceived impact on the target audience and for their perceived effectiveness in portraying the desired message. Finally, all of this information is distilled into an accepted solution. Designers do not sit around waiting for ideas to just happen; they follow a process in order to make it happen.



Figure I.4 The golden ratio is a constant that appears in nature

[Chapter 3](#) presents the most important and necessary design elements required for effective graphic layout and design. When designing a layout, the designer cannot just ‘throw’ all of the information onto the page. Design is a thoughtful process that makes use of many different skills to create a design that is both appealing and legible. We discuss the grid in its many forms, including different types of grid such as the ITS grid, the golden ratio, and even strategies for using no grid at all. Space is an important design element, with different items on the page requiring more or less area to be effective. We also talk about the density, or ‘colour’ of type on the page, along with a number of different typographical conventions for making the most of the collection of words on the layout.

In [Chapter 4](#), we begin to move along in the production process and discuss some of the more physical attributes of design. And one of the most important topics in creating printed products is that of colour. It is a complex part of the design process, affecting how an image is transmitted to the eye, how the colours are perceived, and what makes one thing look different from another, even if it is the same colour. Have you ever printed something on your home printer only to be disappointed that it doesn’t look like it did on your computer screen? Highly detailed systems of colour management are put in place to mitigate these differences.

As we proceed toward creating printed output, [Chapter 5](#) is where it all starts to come together. In the print process, this stage is called prepress. Prepress is where all the design work is translated from a file on the computer in front of you into a form that can be ‘printed’ onto a given surface. Imagine the requirements for creating not just one copy of a design, but thousands! This is a very important step, and if mistakes or production hurdles are not discovered and overcome at this step, then the project can end up being very costly for all parties involved, from the designer, to the printer, to the client. This chapter deals with topics such as preflight, imposition, separations, platemaking, and considerations for other print and finishing processes.

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[Chapter 6](#) is a comprehensive look at how all of this design work will result in a finished product. The many ways that a design can be printed are varied and complex, but having some knowledge about how the print process works will help to create a more successful project. Is it going to be printed on a box, or on a billboard? How many copies are needed: one or one million? These and many more decisions influence how a product will be produced. This chapter outlines some of the more popular printing technologies, along with industry standard procedures for working with them. Suggestions for choosing the right paper (or other types of **substrates**) are also made along with best practices for working with colour on the printed page.

[Chapter 7](#) rounds out this textbook with a look at online technologies and how they affect, and are affected by, the printed word. We examine online web-to-print solutions and their contribution to bridging the process from graphic design to printed work. We also highlight other considerations such as branding and digital file resolution strategies. As the world has moved into an Internet-connected, always-on compendium of information, print remains a vital, relevant, and important part of the media mix. Effective communication campaigns make the most of *all* opportunities that media design and, in particular, print design can offer.

The goal of this text is to bridge the disciplines of communication design and print production to form a concise, accessible compendium outlining the design process in this modern, computer-driven age. While it is common, or perhaps easy, to surmise that graphic design is solely a computer-driven pursuit, when we take a step back, and look at the entire process, we see that computer-aided design is only one part of a larger picture. And by including this larger domain in our studies, we can truly gain an appreciation for the influences and strategies needed to be successful in this field.

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Chapter 1. Design History ⁵

1.1 Introduction

- Identify the unique attributes of major modern graphic design styles, beginning with William Morris. The design styles discussed will be those that have a presence or an influence in our current visual culture:
 - Morris
 - Werkbund
 - Bauhaus
 - Dada
 - International Typographic Style (ITS)
 - Late Modern
 - Post Modern
- Evaluate the influence of past design styles on one another
- Explain the influence of culture on major modern graphic design styles
- Identify the cross-cultural influences of visual culture that impacted graphic design style
- Identify the technological influences that affected and advanced graphic design

Industrial Revolution Overview

The Craftsman

Before the Industrial Revolution (1760-1840 in Britain) most aspects of design and all aspects of production were commonly united in the person of the craftsman. The tailor, mason, cobbler, potter, brewer, and any other kind of craftsman integrated their personal design aesthetic into each stage of product development. In print, this meant that the printer designed the fonts, the page size, and the layout of the book or broadsheet; the printer chose (even at times made) the paper and ran the press and bindery. Unity of design was implicit.

Typography in this pre-industrial era was predominantly used for books and broadsheets. The visual flavour of the fonts was based on the historic styles of western cultural tradition — roman, black letter, italic, and grotesque fonts were the mainstay of the industry. Typography was naturally small scale

— needed only for sheets and pages — and was only large when it was chiseled into buildings and monuments.

Technological Shift

The Industrial Revolution radically changed the structure of society, socially and economically, by moving vast numbers of the population from agrarian-based subsistence living to cities where manufacturing anchored and dominated employment and wealth. Agrarian-based society was tied to an aristocracy overseeing the land and controlling and directing production through the use of human labour. In contrast, urban production, though still very much in need of human labour (female and child labour in particular was in huge demand), was dominated by the mechanized production of goods, directed and controlled by industrialists instead of the aristocracy. The factories were powered initially by steam, and eventually by gasoline and electricity. These new manufacturing models were dominated by an engineering mentality that valued optimization of mechanical processes for high yields and introduced a compartmentalized approach to production.

Design and Production Separate

The design process was separated from the production-based process for a number of reasons. Primary was the efficiency-oriented mindset of the manufacturers who were focused on creating products with low unit costs and high yield outcomes, rather than on pleasing aesthetics or high-quality materials. Design process is time consuming and was considered unnecessary for each production stage of manufactured goods.

Manufactured products were intended for the working and middle classes, and high-quality output was not a goal. These products were never intended to vie for the attention of the upper classes — enticing them away from the services and bespoke products of the craftsman (a contemporary example is Tip Top Tailors attracting Savile Row customers). Rather, they supplied common people with goods they had not been able to afford before. This efficient line of thinking created the still existing equation of minimal design plus low material integrity equalling low-cost products.

Design, rather than being a part of each step of production (implicit in the craftsman's approach), was added for form development and when a product needed more appeal for the masses — usually during the later stages of production through decorative additions. Design was now directed by the parameters and constraints of the manufacturing process and its needs.

Advertising Emerges

Despite low product standards, the high quantities and low costs of manufactured goods “stimulated a mass market and even greater demand” (Meggs & Purvis, 2011, p. 127). The historic role of graphic design for broadsheets and books expanded at this point to include advertising. Each company and product needed exposure to sell these manufactured products to the mass market — no earlier method of promotion could communicate to this number of people.

The design aesthetic of these times was relatively untouched by stylistic cohesion or design philosophy. Industrialists used a pastiche of historic styles that aspired to make their products look more upscale,

but did not go as far as to create a new visual language. This was a strategy that made sense and has since been repeated (consider early computer design aesthetics). Usually, when a new medium or communication strategy is developed (advertising in print and the posters of the Industrial Revolution), it uses visual and language styles that people are already familiar with, and introduces a new way to deliver the message. Too much change alienates, but novelty of delivery works by adding a twist on the shoulders of an already familiar form.

Font Explosion

In addition to its new role in promoting products to the mass market, graphic design moved forward with an explosion of new font designs as well as new production methods. The design of fonts had earlier been linked to the pragmatic and cultural objectives of producing books and broadsheets. With large format posters and numerous other print components, text needed to do much more than represent a phonetic symbol. Innovations in production affected — perhaps infected — printers with the pioneer spirit of the times, and all products and their potential were examined and re-evaluated. This attitude naturally included the function and design of fonts and the methods used to reproduce them. Text was often the only material used to promote its subject and became integral to a visual communication. Jobbing printers who used either letterpress or lithographic presses pushed the boundaries of both, competing with each other by introducing innovations and, in turn, pushing artists and type foundries to create more products they could use. An entirely new font category, slab serif — sometimes called Egyptian — was created. Thousands of new fonts emerged to meet the demand of the marketplace.

Photography

In addition to font development, the Industrial Age also contributed the photograph and ultimately its use in books and advertising. Photography (for print design) was originally used as a research tool in developing engravings, but this was costly and time consuming. Numerous inventors searched for ways to integrate photography into the press process since the early years of its development in the 1830s. Photo engraving eventually arrived in 1871 using negatives and plates. From that time forward, photography has been used to conceptually and contextually support the communication of graphic design in its many forms.

1.2 William Morris and the Arts & Crafts Movement

Alex Hass

Conditions and Products of the Industrial Age

The Arts & Crafts movement emerged in the second half of the 19th century in reaction to the social, moral, and aesthetic chaos created by the Industrial Revolution. William Morris was its founder and leader. He abhorred the cheap and cheerful products of manufacturing, the terrible working and living conditions of the poor, and the lack of guiding moral principles of the times. Morris “called for a fitness of purpose, truth to the nature of the materials and methods of production, and individual expression by both artist and worker” (Meggs & Purvis, 2011, p. 160). These philosophical points are still pivotal to the expression of design style and practice to this day. Design styles from the Arts & Crafts movement and on have emphasized, in varying degrees, either fitness of purpose and material integrity, or

individual expression and the need for visual subjectivity. Morris based his philosophy on the writings of John Ruskin, a critic of the Industrial Age, and a man who felt that society should work toward promoting the happiness and well-being of every one of its members, by creating a union of art and labour in the service of society. Ruskin admired the medieval Gothic style for these qualities, as well as the Italian aesthetic of medieval art because of its direct and uncomplicated depiction of nature.

Many artists, architects, and designers were attracted to Ruskin's philosophy and began to integrate components of them into their work. Morris, influenced by his upbringing in an agrarian countryside, was profoundly moved by Ruskin's stance on fusing work and creativity, and became determined to find a way to make it a reality for society. This path became his life's work.

Pre-Raphaelite Brotherhood

Morris met Edward Burne-Jones at Exeter College when both were studying there. They both read extensively the medieval history, chronicles, and poetry available to them and wrote every day. Morris published his first volume of poetry when he was 24, and continued to write and publish for the rest of his life. After graduation, Morris and Burne-Jones tried a few occupations, and eventually decided to become artists. Both became followers of Dante Gabriel Rossetti who founded the Pre-Raphaelite brotherhood that was based on many of Ruskin's principles. Morris did not last long as a painter, eventually finding his design vocation while creating a home for himself and his new wife (Rossetti's muse and model).

Discovering the lack of design integrity in Victorian home furnishings and various additional deficiencies in other aspects of home products, he chose to not only design his home, but all its furniture, tapestries, and stained glass.

Morris & Co.

In 1860, Morris established an interior design firm with friends based on the knowledge and experiences he had in crafting and building his home. He began transforming not only the look of home interiors but also the design studio. He brought together craftsmen of all kinds under the umbrella of his studio and began to implement Ruskin's philosophy of combining art and craft. In Morris's case, this was focused on making beautiful objects for the home. The craftsmen were encouraged to study principles of art and design, not just production, so they could reintegrate design principles into the production of their products. The objects they created were made and designed with an integrity a craftsman could feel proud of and find joy in creating, while the eventual owner would consider these products on par with works of art (an existing example is the Morris chair). The look of the work coming out of the Morris studio was based specifically on an English medieval aesthetic that the British public could connect to. The English look and its integrity of production made Morris's work very successful and sought after. His organizational innovations and principled approach gained attention with craftsmen and artisans, and became a model for a number of craft guilds and art societies, which eventually changed the British design landscape.

William Morris and the Kelmscott Press

Morris's interest in writing never waned and made him acutely aware of how the book publishing industry had been negatively affected by industrialization. One of his many pursuits included the revitalization of the book form and its design components through the establishment of the Kelmscott Press. The press was created in 1888 after Morris, inspired by a lecture about medieval manuscripts and incunabula publications, began the design of his first font, Golden, which was based on the Venetian roman face created originally by Nicolas Jenson.

In his reinterpretation of this earlier font, Morris strove to optimize readability while retaining aesthetic integrity — in the process reviving interest in font design of earlier periods. Morris used this font in his first book, *The Story of Glittering Plain*, which he illustrated, printed, and bound at his press. The design approach of this publication and all others Kelmscott produced in its eight years was based on recreating the integrated approach and beauty of the incunabula books and manuscripts of the medieval period. All aspects of the publication were considered and carefully determined to create a cohesive whole. The press itself used hand-operated machinery, the paper was handmade, and the illustrations, fonts, and page design were all created and unified by the same person to make the book a cohesive, beautiful object of design. Morris did not wholly reject mechanization, however, as he recognized the advantages of mechanical process. He considered, redesigned, and improved all aspects of design and production to increase physical and aesthetic quality.

Kelmscott Press produced over 18,000 volumes in the eight years of its existence and inspired a revival of book design on two continents. In addition, Morris inspired a reinterpretation of design and design practice with his steadfast commitment to Ruskin's principles. Future generations of designers held to Morris's goals of material integrity — striving for beautiful utilitarian object design and carefully considered functionality.

1.3 Deutscher Werkbund

Alex Hass

In the early years of the 20th century, the German Hermann Muthesius returned to Germany from England with Morris's Arts & Crafts concepts. Muthesius published the *The English House* in 1905, a book wholly devoted to the positive outcomes of the English Arts & Crafts movement. Muthesius was a sometime cultural ambassador, possibly an industrial spy, for Germany in England. His interest in the Arts & Crafts movement was not based on returning German culture to the romantic values of an earlier pre-manufacturing era. He was focused on infusing the machine-made products of Germany with high quality design and material integrity. Muthesius believed manufacturing was here to stay. He was one of the original members of the state-sponsored Deutscher Werkbund — an association that promoted the union of art and technology. The Werkbund integrated traditional crafts and industrial mass-production techniques, and put Germany on a competitive footing with England and the United States. Its motto "Vom Sofakissen zum Städtebau" (from sofa cushions to city-building) reveals its range.

Design Embraces the Manufacturing Process

Peter Behrens and Henry van de Velde were also part of the original leadership, and with Muthesius developed the philosophy of *Gesamtkultur* — a cohesive cultural vision where design was the driving force of a wholly fresh, man-made environment. Every aspect of the culture and its products was examined and redefined for maximum use of mechanization in its production. The new visual language of *Gesamtkultur* was a style stripped of ornament in favour of simplicity and function. All areas of cultural production were affected by this new philosophy — graphic design, architecture, industrial design, textiles, and so forth — and all were reconfigured and optimized. Sans serif fonts dominated the reductive graphic design style as did standardization of sizes and forms in architecture and industrial design. Optimization of materials and mechanical processes affected every area. Germany embraced this new philosophy and visual style for its simplicity and exactness. In 1919, Walter Gropius, a modernist architect whose work was inspired by Werkbund ideals, was finally successful in opening a school he called the Bauhaus (in Weimar where artists, industrialists, and technicians would develop their products in collaboration). These products would then build a new future for German exports by virtue of their high level of functional utility and beauty.

1.4 Bauhaus

Alex Hass

The Bauhaus philosophy has become famous for its integrated approach to design education; “it precipitated a revolution in art education whose influence is still felt today” (Whitford, 1995, p. 10). Most art colleges and universities still base much of their foundational curriculum on its fundamental ideas.

The Bauhaus school was founded with the idea of creating a ‘total’ work of art in which all arts, including architecture, would eventually be brought together. The first iteration of the school brought together instructors from all over Europe working within the latest art and design styles, manufacturing ideologies, and technologies. An example of this new teaching style can be found in its first-year curriculum. This foundation year exposed all students to the basic elements and principles of design and colour theory, and experimented with a range of materials and processes. This allowed every student the scope to create projects within any discipline rather than focus solely on a specialty. This approach to design education became a common feature of architectural and design schools in many countries.

In addition to its influence on art and design education, the Bauhaus style was to become a profound influence upon subsequent developments and practices in art, architecture, graphic design, interior design, industrial design, and typography.

The school itself had three iterations in its 14-year run. With each iteration, the core concepts and romantic ideals were modified and watered down to work within the realities of the difficult Nazi culture. When the school was finally closed by its own leadership under pressure from the Nazi-led government, most of the faculty left the country to teach in less difficult circumstances and continued to spread Bauhaus precepts all over the world. Many of its artists and intellectuals fled to the United States. Because the Bauhaus approach was so innovative and invigorating, the institutions that were exposed to the Bauhaus methodology embraced its principles. This is why the Bauhaus had a major impact on art and architecture trends in Western Europe, the United States, and Canada.

Later evaluation of the Bauhaus design philosophy was critical of its bias against the organic markings of a human element, an acknowledgment of "... the dated, unattractive aspects of the Bauhaus as a projection of utopia marked by mechanistic views of human nature" (Schjeldahl, 2009, para. 6). And as Ernst Kállai proposed in the magazine *Die Weltbühne* in 1930, "Home hygiene without home atmosphere" (as cited in Bergdoll & Dickerman, 2009, p. 41).

The very machine-oriented and unadorned aesthetic of the Bauhaus refined and evolved, eventually informing the clean, idealistic, and rigorous design approach of the International Typographic Style.

1.5 Dada

Alex Hass

Dada does not mean anything. We read in the papers that the Negroes of the Kroom race call the tail of the sacred cow: dada. A cube, and a mother, in certain regions of Italy, are called: Dada. The word for a hobby-horse, a children's nurse, a double affirmative in Russian and Rumanian, is also: Dada. (Tzara, 1992) – Tristan Tzara, *Dada Manifesto*

Dada was an artistic and literary movement that began in 1916 in Zurich, Switzerland. It arose as a reaction to World War I, and the nationalism and rationalism, which many thought had brought war about. Influenced by ideas and innovations from several early avant-gardes — Cubism, Futurism, Constructivism, and Expressionism — its influence in the arts was incredibly diverse, ranging from performance art to poetry, sculpture, and painting, to photography and photographic and painterly collage.

Dada's aesthetic, marked by its mockery of materialistic and nationalistic attitudes, became a powerful inspiration for artists and designers in many cities, including Berlin, Paris, and New York, all of which

generated their own groups. The movement radically changed typographic ideals and created fresh approaches to text. Unburdened of its rules and conventions, type was allowed to become expressive and subjective. The poetic output of the group was fresh and different, and needed its typography to be as expressive and innovative as its content. Dada, in combination with aspects of Constructivist and Suprematist typography, balanced the cultural discipline created and applied to typography by other streams of contemporary design like the Bauhaus. This movement in particular advanced typography as a medium of its own. It promoted the use of typography as an art material that could be manipulated by artists and designers expressively and without preordained rules and structural principles.

Words emerge, shoulders of words, legs, arms, hands of words. Au, oi, uh. One shouldn't let too many words out. A line of poetry is a chance to get rid of all the filth that clings to this accursed language, as if put there by stockbrokers' hands, hands worn smooth by coins. I want the word where it ends and begins. Dada is the heart of words. (Ball, 1996)

– *Hugo Ball's manifesto*, read at Zunfthaus zur Waag on July 14, 1916

1.6 International Typographic Style

Alex Hass

International Typographic Style (ITS), also known as the Swiss Style, emerged in Switzerland and Germany in the 1950s. ITS became known for design that emphasized objective clarity through the use of compositional grids and sans serif typography as the primary design material (or element).

Guiding Principles

ITS was built on the shoulders of the 'less is more' ideal of the German Werkbund and the Bauhaus school. But its pioneers pursued ideologies that had much more depth and subtlety. Ernst Keller, whose work in design spanned over four decades, brought an approach to problem solving that was unique. His contribution to design was in defining the problem. For Keller, the solution to a design problem rested in its content. Content-driven design is now a standard practice. Max Bill, another pioneer, brought a purist approach to design that he had been developing since the 1930s. He was instrumental in forming Germany's Ulm School of Design, famous for its ITS approach. The school introduced

Greek rhetorical devices to amplify concept generation and produce greater conceptual work, while the study of semiotics (creating and understanding symbols and the study of sending and receiving visual messages) allowed its design students to understand the parameters of communication in a more scientific and studied way. At this time, there was also a greater interest in visual complexity. Max Huber, a designer known for his excellent manipulation of presses and inks, layered intense colours and composed chaotic compositions while maintaining harmony through the use of complex grids that structured and unified the elements. He was one of many designers who began using grids in strategic ways. ITS design is now known for its use of anchored elements within a mathematical grid. A grid is the “most legible and harmonious means for structuring information” (Meggs & Purvis, 2011, p. 355). Visual composition changed in many ways due to the grid. Design was already moving toward asymmetrical compositions, but now even the design of text blocks changed — from justified text to aligned flush left, ragged right. Fonts chosen for the text changed from serif fonts to sans serif, a type style believed to “express the spirit of a more progressive age” by early designers in the movement. Sans-serif typefaces like Helvetica, Univers, and Akzidenz Grotesk were favoured because they reflected the ideals of a progressive culture more than traditional serif fonts like Times or Garamond. ITS balanced the stabilizing visual qualities of cleanliness, readability, and objectivity with the dynamic use of negative space, asymmetrical composition, and full background photography.

Photography

ITS did not use illustrations and drawings because of their inherent subjectivity. Photography was preferred because of its objective qualities, and was heavily used to balance and organically complement the typography and its structured organizational grid. Often the photograph sat in the background with the type designed to sit within it; the two composed to strengthen each other to create a cohesive whole. ITS refined the presentation of information to allow the content to be understood clearly and cleanly,

without persuading influences of any kind. A strong focus on order and clarity was desirable as design was seen to be a “socially useful and important activity ... the designers define their roles not as artists but as objective conduits for spreading important information between components of society” (Meggs & Purvis, 2011, p. 355).

Josef Müller-Brockmann, another one of its pioneers, “sought an absolute and universal form of graphic expression through objective and impersonal presentation, communicating to the audience without the interference of the designer’s subjective feelings or propagandistic techniques of persuasion” (Schneider, 2011). Müller-Brockmann’s posters and design works feature large photographs as objective symbols meant to convey his ideas in particularly clear and powerful ways.

After World War II, international trade began to increase and relations between countries grew steadily stronger. Typography and design were crucial to helping these relationships progress — multiple languages had to be factored into a design. While clarity, objectivity, region-less glyphs, and symbols were essential to communication between international partners, ITS found its niche in this communicative climate and expanded beyond Switzerland, to America.

ITS is still very popular and commonly used for its clarity and functionality. However, there is a fine line between clean and simple, and simply boring. As the style became universal, its visual language became less innovative and was perceived to be too restrictive. Designers wanted the freedom to be

expressive, and the culture itself was moving from cultural idealism to celebratory consumerism. ITS can be a very successful design strategy to adopt if there is a strong concept binding all of the design components together, or when there is a vast amount of complexity in the content and a visual hierarchy is needed to calm the design to make it accessible.

1.7 Late Modern | New York Style

Alex Hass

Late Modernism encompasses the period from the end of World War II to the early 21st century. Late Modernism describes a movement that arose from and reacted to trends in ITS and Modernism. The Late Modern period was dominated by American innovations spurred on by America's new-found wealth. The need for more advertising, marketing, and packaging was matched by a new mood in the culture — a mood that was exuberant and playful, not rigid and rule-oriented.

Late Modern was inspired by European avant-garde immigrants. These immigrants found work in design and quickly introduced Americans to early modern principles of an idealistic and theoretical nature. American design at this point had been pragmatic, intuitive, and organic in composition. The fusion of these two methodologies in a highly competitive and creative climate produced design work that was original in concept, witty, and provocative and, as personal expression was highly prized, full of a variety of visual styles. Paul Rand is one of the great innovators of this style. Rand was adept at using ITS when its rules and principles were called for, but he was also very influenced by European art movements of the times. In his work, he fused the two and made works that were accessible, simple, engaging, and witty. His work was inspirational, but his writing and teaching were as important, if not more, to redefining the practice of design. He restructured the design department at Yale and published books on design practice informed by ITS principles, softened by wit, and espoused the value of the organic look of handmade marks. As a result, artists and designers began to merge organic shapes with simple geometry.

The look of graphic design also changed through advancements in photography, typesetting, and printing techniques. Designers felt confident in exploring and experimenting with the new technologies as they were well supported by the expertise of the print industry. Designers began to cut up type and images and compose directly on mechanical boards, which were then photographed and manipulated on the press for colour experimentation. As well, illustration was once again prized. Conceptual typography also became a popular form of expression.

Push Pin Studios

An excellent example of this expansive style can be found in the design output of New York's Push Pin Studios. Formed by Milton Glaser and Seymour Chwast, Push Pin was a studio that created innovative typographic solutions — I♥NY— brand identities, political posters, books, and albums (such as Bob Dylan's album *Dylan*). It was adept at using and mixing illustration, photography, collage, and typography for unexpected and innovative visual results that were always fresh and interesting as well as for its excellent conceptual solutions. The influence of Push Pin and Late Modern is still alive and has recently experienced a resurgence. Many young designers have adopted this style because of its fresh colours, fine wit, and spontaneous compositions.

1.8 Post Modern

Alex Hass

By the early 1970s, the idealistic principles of Modernism were fading and felt flat and lifeless. Pluralism was again emerging as people craved variety as a reaction to the reductivist qualities that modernism espoused.

Punk

In the late 1970s in Britain, Australia, and parts of the United States, a youthful rebellious culture of anger and disdain arose against the establishment. In many ways, the design language of Punk echoed the Dadaist style, though Punk was anchored with a pointed, political message against the tyranny of society and the disenfranchisement of youth. A use of aggressive collages, colours, and experimental photography were its hallmarks. These free-form, spontaneous design works incorporated pithy tag lines and seethed with anger in a way that Dada work never attempted to achieve. Punk actively moved away from the conformities of design, and was anti-patriotic and anti-establishment. Punk established the do it-yourself (DIY) ethos and stylized it with the angry anti-establishment mood of the mid 1970s, a time of political and social turbulence. DIY style was considered shocking and uncontrolled. However, the influence on design has been far reaching and subsequently widely emulated.

Jamie Reid, a pioneer of the Punk style, developed the visual signature look for the Sex Pistols and many other punk bands. His personal signature style was known for a collaged 'ransom note' typography that became a typographic style of its own. Reid cut letters out of newspapers and magazines, and collaged them together to be photographed. By doing this, he could see what he was creating as he went along, trying out different font styles and sizes and seeing the results instantly. Treating type as if it were a photograph also freed him from the restrictions of typesetting within a structured grid and allowed him to develop his ideas and concepts as he created. This unguided, process-free approach to design became a part of the Post Modern experimentation that was to come.

When Punk first exploded in the 1970s, it was deemed a youthful rebellion. In actuality, it was one of the many forms of visual expression that manifested as part of the Postmodernist movement that began as a reaction to the rigid restrictions of Modernism.

Early Post Modernism

Early Swiss Post Modern design was driven by the experimentations and teachings of Wolfgang Weingart who taught at the Basel School of design in Basel, Switzerland. Weingart was taught ITS by the masters of the style, Emil Ruder and Armin Hofmann at the Basel School. But once he became an instructor there, he questioned the "value of the absolute cleanliness and order" (Meggs & Purvis, 2011, p. 465) of the style. He experimented vigorously with breaking all typographic and

organizational rules to see what the effect on the audience would be. He invigorated typography with energy and in turn

changed the viewer's response to the visual information. Instead of a simple fast reading, the reader now faced dynamic complexity free of any rules or hierarchies. The viewer was now compelled to spend more time with a design piece to understand its message and parse the meaning of its symbolism.

One of his American students, April Greiman, brought this new design language back to California with her and heavily influenced the youth culture there. David Carson, a self-taught designer working in the surf magazine world, took the ideas of the style and adopted them to his own typographic experiments in the surfing magazines he designed. For Carson, Post Modern design reflected the free spirit of the surf community.

Post Modernism is actually an umbrella term for many visual styles that came about after the 1980s. They are unified by their reaction to Modernism's guiding principles — particularly that of objectivity. A key feature of Post Modern design is the subjective bias and individual style of the designers that practise it. Additional defining stylistic characteristics can be summarized in the idea of 'de construction.' The style often incorporates many different typefaces breaking every traditional rule of hierarchy and composition. Visual organization becomes more varied and complicated with the use of layers and overlapping. The use of image appropriation and culture jamming is a key feature. Dramatic layouts that do not conform to traditional compositions are another common characteristic. A traditional grid is not used to organize the layout of the elements, making composition look 'free-style.' Other organizational systems for the elements developed — axial, dilatational, modular, and transitional systems created a fresh way to organize the information. The combination of multiple geometric shapes layered with photographs created depth that worked well on the computer monitor — now a component of contemporary society.

Post Modernism is still in use today, though selectively. The chaos created by our technological advancements needs to be balanced with the ease of accessing information. The Apple brand is a good example of a contemporary design approach that feels fresh and current, while delivering massive amounts of information in a clean and simple way. The Post Modern methods of built-in visual difficulty are less welcome in our data-saturated culture.

1.9 Summary

Alex Hass

The technological revolution of the 1990s brought the mobile phone and computer to every home and office and changed the structure of our current society much as manufacturing in the 1800s changed Britain and the Western world. As with the Industrial Revolution, the change in technology over the last 20 years has affected us environmentally, socially, and economically. Manufacturing has slowly been moved offshore and replaced with technology-based companies. Data has replaced material as the substance we must understand and use effectively and efficiently. The technological development sectors have also begun to dominate employment and wealth sectors and overtake manufacturing's dominance. These changes are ongoing and fast-paced. The design community has responded in many novel ways, but usually its response is anchored by a look and strategy that reduce ornament and overt

style while focusing on clean lines and concise messaging. The role of design today is often as a way-finder to help people keep abreast of changes, and to provide instruction. Designers are once again relying on established, historic styles and methods like ITS to connect to audiences because the message is being delivered in a complex visual system. Once the technological shifts we are experiencing settle down, and design is no longer adapting to new forms of delivery, it will begin to develop original and unique design approaches that complement and speak to the new urban landscape.

1. What design principles do Dada and Punk have in common?
2. What influence does ITS have on Post Modern design?
3. What influence does ITS have on current design practice?
4. How did World War II influence design education?
5. How did Morris and the Arts & Crafts movement help to create the Bauhaus design philosophy?
6. How did technology influence early German design?
7. How does technology influence contemporary design practice?

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Chapter 2. Design Process ²¹

2.1 Introduction

- Explain the role of communication design in print and media
- Describe how the creative process relates to strategic problem solving
- Contrast how the creative process relates to the design process
- Define critical phases of the design process
- Discover how project research helps to define a communication problem
- Give examples of brainstorming techniques that generate multiple concepts based on a common message
- Learn about metaphors and other rhetorical devices to generate concepts
- Explore how concepts translate into messages within a visual form

Communication Design and The Design Process

The practice of graphic or communication design is founded on crafting visual communications between clients and their audience. The communication must carry a specific message to a specific audience on behalf of the client, and do so effectively — usually within the container of a concept that creates context and builds interest for the project in the viewer.

See an illustrated model of the design process here: [A Model of the Creative](#)

[Process](#) Overview of the Design Process

The process of developing effective design is complex. It begins with research and the definition of project goals. Defining goals allows you to home in on precisely what to communicate and who the audience is. You can then appropriately craft the message you are trying to communicate to them. Additional information regarding how to deliver your message and why it's necessary are also clarified in the research stage. Often the preferred medium becomes clear (i.e., web, social media, print, or advertising) as does the action you want your audience to take. Asking a millennial to donate to a cause is a good example. Research reveals that transparency of donation use, donor recognition, and ease of making the donation are vital to successfully engaging a millennial audience (Grossnickle, Feldmann, White, & Parkevich, 2010). Research also reveals that millennials resist negative advertising, so the

message must be crafted in positive terms that are anchored to a realistic environment (Tanyel, Stuart, & Griffin, 2013). Knowing this information before the concept development begins is vital to crafting a message that will generate the response your client needs. Critiquing and analysis allow you to evaluate the effectiveness of the design approach as it develops through the stages of an iterative process.

In order to design visual materials that communicate effectively, designers must understand and work with the syntax of visual language. Meaning is expressed not only through content but through form as well, and will include both intellectual and emotional messages in varying degrees.

Developing Concepts into Design Solutions

Designers are responsible for the development of the creative concepts that express the message. A **concept** is an idea that supports and reinforces communication of key messages by presenting them in interesting, unique, and memorable ways on both intellectual and emotional levels. A good concept provides a framework for design decisions at every stage of development and for every design piece in a brand or ad campaign. An early example of this is the witty and playful ‘think small’ Volkswagen Beetle (VW) advertising campaign of the 1960s. By amplifying the smallness of its car in a ‘big’ car culture, VW was able to create a unique niche in the car market and a strong bond between the VW bug and its audience (see Figure 2.1).



Figure 2.1 Volkswagen Beetle

When you implement solutions, you put concepts into a form that communicates effectively and appropriately. In communication design, form should follow and support function. This means that what you are saying determines how you say it and in turn how it is delivered to your audience. Design is an **iterative** process that builds the content and its details through critiquing the work as it develops. Critiquing regularly keeps the project on point creatively and compositionally. Critiquing and analysis allow you to evaluate the effectiveness of the whole design in relation to the concept and problem. The number of iterations depends on the skill of the designer in developing the content and composition as well as properly evaluating its components in critique. In addition, all of this must occur in the context of understanding the technologies of design and production.

As you begin to build and realize your concepts by developing the content, the elements, and the layouts, you must apply compositional and organizational principles that make sense for the content and support the core concept. Compositional principles are based on psychological principles that describe how human beings process visual information. Designers apply these principles in order to transmit meaning

effectively. For example, research has shown that some kinds of visual elements attract our attention more than others; a designer can apply this knowledge to emphasize certain parts of a layout and give a certain element or message importance. These principles apply to all forms of visual materials, digital media, and print.

When dealing with text, issues of legibility and readability are critical. Designers organize information through the use of formal structures and typographic conventions to make it easier for the viewer to absorb and understand content. The viewer may not consciously see the underlying structures, but will respond positively to the calm clarity good organization brings to the text.

Media Attributions

- [Volkswagen Beetle](#) by IFCAR © [Public Domain](#)

2.2 Design Research and Concept Generation

Alex Hass

Defining Design Problem Parameters

Many designers define communication design as a problem-solving process. (The problem/opportunity is how to deliver information effectively to the desired audience.) The process that takes the designer from the initial stages of identifying a communication problem to the final stage of solving it covers a lot of ground, and different models can be used to describe it. Some are very complicated, and some are simple. The following sections break the design problem-solving process into four steps: (1) define, (2) research, (3) develop concepts, and (4) implement solutions.

2.3 Define

Alex Hass

Step 1: Define the Communication Problem

The inventor Charles Kettering is famously quoted as saying “a problem well-stated is half-solved.” Clearly the first step in any design activity is to define the communication problem properly. To do this, you will need to meet with clients to establish initial goals and objectives.

Here are some of the questions you should ask:

- What is the business of the client; what products or services does the client offer?

- What are the client’s long-term business goals? (What does the client want its business to have accomplished in 5 or 10 years?)
- What is the purpose of the project? What does the client hope to achieve with it? (The goals of a specific project are usually narrower than overall long-term business goals, but should fit within the larger picture.)
- What are the performance criteria that will be used to evaluate whether project goals are met?
- Who is the target audience?
- What is the client’s message to this audience?
- How does this project fit in with existing corporate materials?
- Does this piece require more than one format or medium?
- What corporate guidelines (if any) must be adhered to?
- Are illustration, photography, or any other special services required?
- Are there any special or unusual considerations around this project?
- What quantity is needed (for print)?
- What distribution method will be used (for print)?
- What is the budget?
- Who will approve the project? Will that person be available for sign-off when required?

Good planning at the beginning can make a project run smoothly and without surprises. Don’t assume anything; both the designer and the client should listen closely to each other and ask plenty of questions. Keep in regular communication, document discussions, and ensure that you have written confirmation of decisions.

2.4 Research

Alex Hass

Step 2: Conduct Research

Gather and analyze information What else do you need to know? The information you collected in the first stage is just a starting point — now you need to do more research in order to fine-tune your goals and process. Check every assumption, ask more questions, and add detail.

Research practices may involve:

- Competitor analysis: analyzing the competition to see what they do and determine their

strengths and weaknesses

- **Ethnographic** research: observing user behaviour and culture
- Site research: observing and understanding the strengths and weaknesses of a space to optimize the effectiveness of the design experience you will be creating; site research is necessary to any design project that is situated in a built environment
- Marketing research: analyzing behaviour in terms of consumer practices, including demographic profiling (grouping people based on variables such as age/income/ethnicity/ location to create profiles generally describing their thinking/behaviour)
- User testing: measuring the ability of the product or service to satisfy users' needs
- Co-creation: inviting end-users to **brainstorm** solutions with the design team before the concept phase of design begins

Incorporating Research into the Design Process

Research should be a part of all design process, but what kind of research is done, and who does it, will be determined by the scope and budget of the project. Some information may be publicly available, for example, through corporate publications or previously published marketing studies or market data, but a design company may need to partner with a research firm in order to do targeted in-depth research.

At the very least, design research should include:

- A literature review (gathering and reviewing all existing material that is relevant to your subject)
- Collected details (existing materials, corporate guidelines) of your client's business and the services the client offers
- Information on the **target audience** (What do they want? need? expect?)
- Analysis of competitors (Who are they? how are they different? how are they the same? how

do they advertise or make information available?)

- Estimates and technical advice from subcontractors (e.g., printers)

Some things to consider:

- Is a full design audit required? Much like a SWOT analysis, which assesses strengths, weaknesses, opportunities, and threats, a design audit applies the same stringent methodology to analyzing your competitors' visual presence in the marketplace.

A graphic design audit is a fantastic and relatively easy way to get a clear picture of how your competitors are perceived, what key messages they are communicating and how you look when placed alongside them. It's also a valuable exercise that informs you about the type of communication your customers are receiving on a regular basis from your key competitors. (Clare, 2006)

- What are the implications of the audience profile in relationship to the project goals?
- What is the most appropriate means to communicate with this audience (i.e., what media and marketing tools should you use)?
- How do the goals of this project fit into your client's long-term goals?
- Is your client's message what actually needs to be communicated in order to further the client's business goals?

Research takes time and can cost money, but in the larger picture will save time and money by helping to focus the direction of the design process. It also helps you provide justification for your proposed communication solutions to your client. Remember that all research must be carefully documented and raw sources saved and made available for future reference.

Now that you have gathered all the information, it's time to craft the design problem into a well-defined, succinct statement.

A Problem Well-stated is Half-solved

The writer Mark Levy, in his article [A Problem Well-stated is Half-solved](#), developed six steps you can take to state a design problem so its solutions become clearer:

1. State the problem in a sentence. A single sentence forces you to extract the main problem from a potentially complex situation. An example of a problem statement: "We need to increase revenue by 25%."
2. Make the problem statement into a question. Turning the problem statement into a question opens the mind to possibilities: "How do we increase revenue by 25%?"
3. Restate the question in five ways. If you spin the question from a variety of perspectives, you'll construct new questions that may provide intriguing answers.
For instance, try asking: "How could we increase revenue by 25% in a month?" "How could we increase it by 25% in an hour?" "How could we increase it by 25% in a minute?" "What could we stop doing that might cause a 25% revenue increase?" "What ways can we use our existing customer base to affect the increase?"

4. Give yourself thinking quotas. An arbitrary production quota gives you a better shot at coming up
Graphic Design 29

with something usable, because it keeps you thinking longer and with greater concentration. When I asked you to "Restate the question five ways," that was an example of an arbitrary quota. There's nothing magical about five restatements. In fact, five is low. Ten, or even a hundred, would be far better.

5. Knock your questions. Whatever questions you've asked, assume they're wrong-headed, or that you haven't taken them far enough.
You might ask, "Why do we need an 25% increase at all? Why not a 5% increase? A 500% increase? A 5,000% increase? What other things in the business might need to change that would be as important as revenue?"
6. Decide upon your new problem-solving question. Based on the thinking you've already done, this step may not even be necessary. Often, when you look at your situation from enough angles, solutions pop up without much more effort.

However, if you still need to pick a single question that summarizes your problem, and none seems perfect,

force yourself to choose one that's at least serviceable. Going forward is better than standing still.

Now you can start brainstorming.

Concept Mapping

A good way to begin the process of research and problem definition is to write down everything that you already know about your subject. This brainstorming can be done in a linear way by developing lists, or in a non-linear way, popular with designers, called *concept mapping*. Concept mapping is a non-linear approach that allows a designer to see what is known and what still needs to be researched. Concept mapping is also used to generate concepts and to create associations and themes.

W5 + 1

The first step is to take a sheet of paper and write a central title or topic in the centre. Then surround this central idea with information gathered by answering the following questions, based on the 5 Ws (who, what, where, why, and when), plus one more, how:

- What are you trying to communicate? (the problem)
- Why must communication occur? (what is its purpose?)
- Who is the target audience?
- Where will communication take place? (in what medium and location?)
- When will communication take place?
- How will you implement the concept?
- What if? (what would be ideal?)

Once you've added all the information you have at hand, you will see any assumptions and gaps in that information, and you can begin specific directed research to create a larger, more objective picture.

Here is an example of a concept map (See Figure 2.2). To see a [concept map that details the scope of visual communication](#).

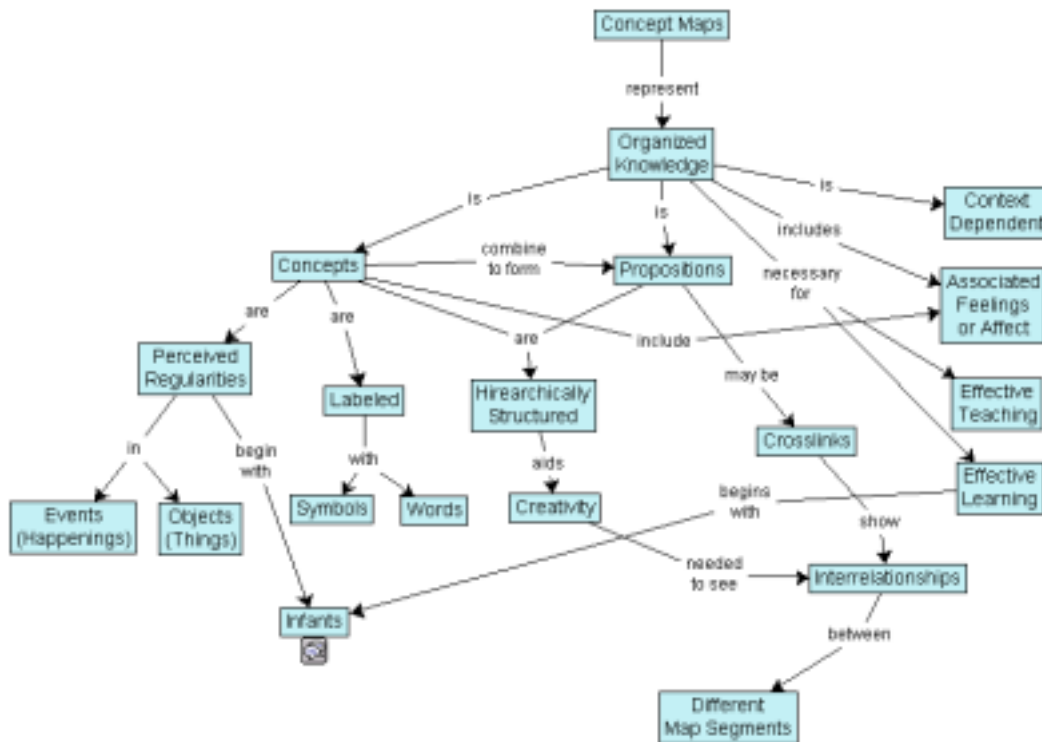


Figure 2.2 Example of a concept map

You can use the information in a concept map to generate other themes and concepts for your project. For example, in the concept map above, you could develop another theme by highlighting in yellow all information from the 1970s. This would reveal the parameters of design practice in the 70s and would additionally reveal what has been added and changed in design practice since.

Text Attributions

[A Problem Well-stated is Half-solved](#) by Mark Levy is used under a [CC BY-NC-ND 3.0 Licence](#).

2.5 Develop Concepts

Alex Hass

Step 3: Developing Concepts

Concept development is a process of developing ideas to solve specified design problems. The concepts are developed in phases, from formless idea to precise message in an appropriate form with supportive visuals and content. Once you have done your research and understand exactly what you want to achieve and why, you are ready to start working on the actual design. Ideally, you are trying to develop a concept that provides solutions for the design problem, communicates effectively on multiple levels, is unique (different and exciting), and stands out from the materials produced by your client's competitors.

Generate, test, and refine ideas

A good design process is a long process. Designers spend a great deal of time coming up with ideas; editing, revising, and refining them; and then evaluating their results every time they try something. Good design means assessing every concept for effectiveness.

The design process looks roughly like this:

- Generating a concept
- Refining ideas through visual exploration
- Preparing rough layouts detailing design direction(s)
- Setting preliminary specifications for typography and graphic elements such as photography, illustration, charts or graphs, icons, or symbols
- Presenting design brief and rough layouts for client consideration
- Refining design and comprehensive layouts, if required
- Getting client approval of layouts and text before the next phase

Developing Effective Concepts

A concept is not a message. A concept is an idea that contextualizes a message in interesting, unique, and memorable ways through both form and design content.

A good concept reinforces strategy and brand positioning. It helps to communicate the benefits of the offer and helps with differentiation from the competition. It must be appropriate for the audience, facilitating communication and motivating that audience to take action.

A good concept provides a foundation for making visual design decisions. For example, Nike's basic

message, expressed by its tagline, is "Just Do It." The creative concept Nike has used since 1988 has been adapted visually in many ways, but always stays true to the core message by using images of individuals choosing to take action.

"It was a simple thing," Wieden recalls in a 2009 Adweek video interview in which he discusses the effort's genesis. Simplicity is really the secret of all "big ideas," and by extension, great slogans. They must be concisely memorable, yet also suggest something more than their literal meanings. Rather than just putting product notions in people's minds, they must be malleable and open to interpretation, allowing people of all kinds to adapt them as they see fit, and by doing so, establish a personal connection to the brand (Gianatasio, 2013).

A good concept is creative, but it also must be appropriate. The creativity that helps develop effective, appropriate concepts is what differentiates a designer from a production artist. Very few concepts are up to that standard — but that's what you should always be aiming for.

In 1898, Elias St. Elmo Lewis came up with acronym AIDA for the stages you need to get consumers through in order for them to make a purchase. Modern marketing theory is now more sophisticated, but the acronym also works well to describe what a design needs to do in order to communicate and get people to act.

In order to communicate effectively and motivate your audience, you need to:

A — attract their attention. Your design must attract the attention of your audience. If it doesn't, your message is not connecting and fulfilling its communication intent. Both the concept and the form must stand out.

I — hold their interest. Your design must hold the audience's interest long enough so they can completely absorb the whole communication.

D — create a desire. Your design must make the audience want the product, service, or information.

A — motivate them to take action. Your design must compel the audience to do something related to the product, service, or information.

Your concept works if it makes your audience respond in the above ways.

Generating Ideas and Concepts from Concept Mapping

You can use the information in a concept map to generate additional concepts for your project by reorganizing it. The [concept tree method](#) below comes from the mind-mapping software blog (Frey, 2008)

1. Position your design problem as the central idea of your mind map.
2. Place circles containing your initial concepts for solving the problem around the central topic.
3. Brainstorm related but non-specific concepts, and add them as subtopics for these ideas. All related concepts are relevant. At this stage, every possible concept is valuable and should not be judged.
4. Generate related ideas for each concept you brainstormed in step 3 and add them as subtopics.
5. Repeat steps 3 and 4 until you run out of ideas.

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Applying Rhetorical Devices to Concept Mapping

After you have placed all your ideas in the concept map, you can add additional layering to help you refine and explore them further. For example, you can use rhetorical devices to add context to the concepts and make them come alive. **Rhetoric** is the study of effective communication through the use and art of persuasion. Design uses many forms of rhetoric — particularly metaphor. If you applied a metaphor-based approach to each idea in your concept map, you would find many new ways to express your message.

Rhetorical Devices Appropriate for Communication Design

Allusion is an informal and brief reference to a well known person or cultural reference. In the magazine cover linked below, an allusion is used to underline the restrictive nature of the burqa, a full body cloak worn by some Muslim women, by applying it to Sarah Jessica Parker, an actor whose roles are primarily feminist in nature. (Harris, 2013)

Follow the link to see an example: [Marie Claire Cover](#)

Amplification involves the repetition of a concept through words or images, while adding detail to it. This is to emphasize what may not be obvious at first glance. Amplification allows you to expand on an idea to make sure the target audience realizes its importance. (Harris, 2013)

Follow the link to see an example: [Life's too short for the wrong job Marketing Campaign](#)

Analogy compares two similar things in order to explain an otherwise difficult or unfamiliar idea. Analogy draws connections between a new object or idea and an already familiar one. Although related to simile, which tends to employ a more artistic effect, analogy is more practical; explaining a thought process, a line of reasoning, or the abstract in concrete terms. Because of this, analogy may be more insightful. (Harris, 2013)

Follow the link to see an example: [WWF Lungs Before It's Too Late](#)

Hyperbole is counter to understatement. It is a deliberate exaggeration that is presented for emphasis. When used for visual communication, one must be careful to ensure that hyperbole is a clear exaggeration. If hyperbole is limited in its use, and only used occasionally for dramatic effect, then it can be quite attention grabbing.

Follow the link to see an example: [Final Major Project by Mark Studio](#)

A written example would be: *There are a thousand reasons why more research is needed on solar energy.*

Or it can make a single point very enthusiastically: *I said "rare," not "raw." I've seen cows hurt worse than this get up and walk.*

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Hyperbole can be used to exaggerate one thing to show how it differs from something to which it is being compared: *This stuff is used motor oil compared to the coffee you make, my love.*

Hyperbole is the most overused rhetorical device in the world (and that is no hyperbole); we are a society of excess and exaggeration. Handle it like dynamite, and do not blow up everything you can find (Harris, 2013).

Metaphor compares two different things by relating to one in the same terms commonly used for the other. Unlike a simile or analogy, metaphor proposes that one thing is another thing, not just that they are similar (Harris, 2013).

Follow the link to see an example: [Ikea Bigger Storage Idea](#)

Metonymy is related to metaphor, where the thing chosen for the metaphorical image is closely related to (but not part of) that with which it is being compared. There is little to distinguish metonymy from synecdoche (as below). Some rhetoricians do not distinguish between the two (Harris, 2013).

Follow the link to see an example: [London Logo](#)

Oxymoron is a paradox presented in two words, in the form of an adjective and noun (“eloquent silence”), or adverb-adjective (“inertly strong”), and is used to impart emphasis, complexity, or wit (Harris, 2013). See Figure 2.3 for another example.

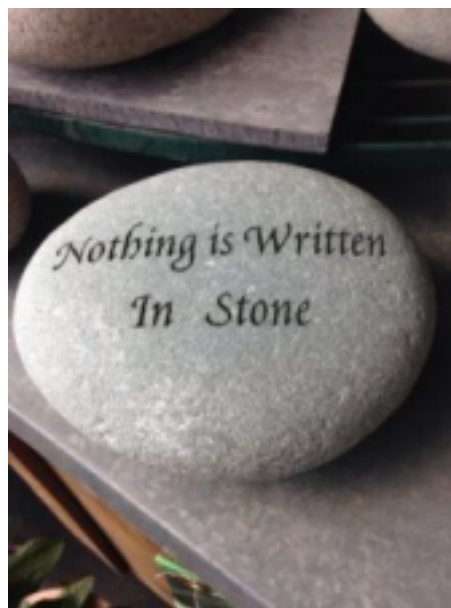


Figure 2.3 Example of an oxymoron

Personification attributes to an animal or inanimate object human characteristics such as form, character, feelings, behaviour, and so on. Ideas and abstractions can also be personified. For example, in the poster series linked below, homeless dogs are placed in environments typical of human homelessness (Harris, 2013).

Follow the link to see an example: [Manchester Dogs' Home Street Life](#)

Simile is a comparison of one thing to another, with the two being similar in at least one way. In formal
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prose, a simile compares an unfamiliar thing to a familiar thing (an object, event, process, etc.) known to the reader. (Harris, 2013)

Follow the link to see an example: [Strong Handle Billboard](#)

Synecdoche is a type of metaphor in which part of something stands for the whole, or the whole stands for a part. It can encompass many forms such that any portion or quality of a thing is represented by the thing itself, or vice versa (Harris, 2013).

Follow the link to see an example: [A Global Warming Poster](#)

Understatement deliberately expresses a concept or idea with less importance as would be expected. This could be to effect irony, or simply to convey politeness or tact. If the audience is familiar with the

facts already, understatement may be employed in order to encourage the readers to draw their own conclusions (Harris, 2013).

For example: *instead of endeavouring to describe in a few words the horrors and destruction of the 1906 earthquake in San Francisco, a writer might state: The 1906 San Francisco earthquake interrupted business somewhat in the downtown area.*

Follow the link to see an example: [Nike's Just Do It](#)

An excellent online resource for exploring different rhetorical devices is "[A Handbook of Rhetorical Devices](#)" (Harris, 2013). The definitions above have been paraphrased from this site.

Developmental Stages of Design

No design work should ever be done without going through an iterative development process in which you try out different ideas and visual approaches, compare and evaluate them, and select the best options to proceed with. This applies to both form and content.

The development of the concept starts with brainstorming as wide a range of ideas as possible, and refining them through a number of development stages until you are left with those that solve the communication problem most effectively.

The development of graphic forms starts with exploring a wide range of styles, colours, textures, imagery, and other graphic devices and refining them through development stages until you are left with those that best reinforce the concept and message.

The development process starts with **thumbnails** and works through rough layouts and comprehensives to the final solution. Thumbnails are small, simple hand-drawn sketches, with minimal information. These are intended for the designer's use and, like concept maps, are visuals created for comparison. These are not meant to be shown to clients.

Their uses include:

- Concept development and visualization of ideas
- Preliminary evaluation of content (they allow you to sift and sort ideas quickly and effectively)

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- Preliminary evaluation of form (value studies, compositional studies, potential placement of elements)
- Note-taking (a tool to record verbal or visual information quickly and accurately)

Quantity is very important in thumbnails! The idea is to get as many ideas and options down as possible. Designers typically take one of two approaches when they do thumbnails: they either brainstorm a wide range of ideas without exploring any of them in depth, or they come up with one idea and create many variations of it. If you use only one of these approaches, force yourself to do both. Brainstorm as many ideas as possible, using a mix of words and images. The point here is the quantity of ideas — the more the better. Work fast and don't judge your work yet.

Once you have a lot of ideas, take one you think is good and start exploring it. Try expressing the same idea with different visuals, from different points of view, with different taglines and emotional tones.

Make the image the focal point of one variation and the headline the focal point of another. The purpose here is to try as many variations of an idea as possible. The first way of expressing an idea is not necessarily the best way, much like the first pancake is not usually the best.

After you've fully explored one idea, choose another from your brainstorming session and explore it in the same way. Repeat this with every good idea.

Roughs are exactly that — rough renderings of thumbnails that explore the potential of forms, type, composition, and elements of your best concepts. Often a concept is explored through the development of three to five roughs. These are used to determine exactly how all of the elements will fit together, to provide enough information to make preliminary evaluation possible, and to suggest new directions and approaches.

The rough:

- Uses simple, clean lines and basic colour palettes.
- Accurately renders without much detail (the focus is on design elements, composition, and message)
- Includes all of the visual elements in proper relationship to each other and the page

Comps are created for presenting the final project to the client for evaluation and approval. The comp must provide enough information to make evaluation of your concept possible and to allow final evaluation and proofing of all content.

The comp:

- Is as close as possible to the final form and is usually digital
- May use final materials or preliminary/placeholder content if photographs or illustrations are not yet available

Hand-drawn or Digital?

Comps might be hand-drawn when you are showing a concept for something that doesn't yet exist, such
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as a product that hasn't been fabricated, a structure that hasn't been built, or to show a photographer how you want material to be laid out in a photograph that has not yet been taken. Although you could create these comps digitally, it's often more cost effective to create a sketch.

Designers sometimes create hand-drawn comps in order to avoid presenting conceptual work that looks too finished to a client, so they will not be locked into a particular approach by the client's expectations.

Even in this digital age, you should draw all thumbnails by hand (using pen, pencil, or tablet) for the following reasons:

- You don't have to make time-wasting decisions that you shouldn't be making at this early stage (e.g., what typeface should I use? what colour should this be?)
- It's much faster than doing it digitally.

- Work done on a computer tends to look finished and professional, and this can trick you into thinking an idea is better than it is.
- The technology of a tool tends to define the way it is used. If you are using a computer, you will tend to come up with solutions that can be executed only on a computer, and that limits your creative options. For example, would you think of creating an illustration from coloured paper if you were using the computer?
- Hand-drawn sketches provide a paper trail that shows your concept development process and can be presented in case studies to reveal your entire design process in a more personal and engaging way.

Media Attributions

- [nothing-is-written-in-stone-527756_1920](#) by SBM © [Public Domain](#)

2.6 Implement Solutions

Alex Hass

Step 4: Solution Implementation

In this step, we are ready to select the final concept options and carry their application through to completion in producing the final design(s). This part of the process requires that you know how to work with photographers and illustrators, as well as with people in production technologies — primarily, programmers and printers. You may also require project management skills. You should also put a process in place so your final solutions can be evaluated for their effectiveness. Did they work? Did they achieve their goals?

There are many components that require attention during the production phase:

Production and Implementation

- Copy placement and preparation of layouts from approved text
- Liaison with suppliers and subcontractors
- Completion of photography, illustration, charts/graphs, icons/symbols
- Ongoing client liaison for proofreading and corrections
- Scanning and electronic preparation of images (black and white, duotones/tritones, colour); may include colour correction and/or digital manipulation
- Preparation of electronic files in line with press/prepress/web requirements
- Supervision of all prepress materials (final files and proofs)
- Organization, maintenance, and archiving of all digital materials related to the job

Production Supervision

- Discuss production options with client, solicit quotes, and select printer/programmer
- When contract is awarded, liaise with production services to discuss and refine project details

Prepare or review production specifications

- Liaise with client and production to check proofs
- Oversee production to ensure quality control
- Follow up after production work is complete

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Evaluation

Every step of a project should be evaluated in terms of the goals you have defined. Two fundamental questions about every design decision you make are:

- What does this accomplish?
- How does what is accomplished help to meet the project goals?

After the original design challenge has been defined, evaluate every stage of the process in that context. It's surprisingly easy to stray off track when you're designing. If you find yourself designing something brilliant, but it doesn't communicate what it should to the right audience, then all that brilliance is wasted.

Communication

Whether they are in print or multimedia, all design works are intended to communicate to a specific audience, and the design must support that function. All concepts must be evaluated with that end in mind. For example:

- Does the work communicate the key message(s) and support the client's goals?
- Does the work effectively integrate images, design, and text (form and content) to support that communication; create an overall 'look'; make the piece work as a unified whole with no distractions?
- Is the piece physically easy to read and/or understand?
- Do the design choices amplify material (subject matter, mood) in the text?
- Is the piece appropriate to the audience? (children, youth, adults, seniors have particular interests and needs)

Economic Efficiency

- What is possible and most effective within the budget?
- Will this method attract the desired audience/buyer?

Design and Materials

- Are the design choices compatible with technological requirements for production?
- For print materials, is there efficient and economical use of paper?
- Will the materials chosen support the intended use and method of distribution?

2.7 Summary

Alex Hass

Communication design can be described as a problem-solving process that can be broken into four steps: (1) define, (2) research, (3) develop concepts, and (4) implement solutions. Research should be a part of all design process determined by the scope and budget of the project. Concept mapping is a non linear approach that outlines what is known, what is needs, creates associations and themes, and helps generate ideas. Good design takes time that involves generating and assessing concepts. Time is also spent editing, revising, refining , and evaluating ideas.

In conclusion, defining the design process is complicated as it has many stages and involves many steps at each stage. Complicating it further is the reality that every project is unique in its parameters, goals, time period, and participants. This chapter is meant to facilitate the beginning of how you define your individual design process by basing it on general guidelines. If you are still developing an understanding of your personal design strengths and weaknesses, allow extra time for each stage and track your time for each stage. You'll soon discover if you fall into the category of a brainstorming, conceptual, or project development type. Conceptual designers find it easy to develop multiple concepts, but less easy to take the steps to develop them to their full potential. Project development types are the opposite — finding concepts hard to create, but developing projects quite easy. Allow extra time to discover which category you fall into and also to develop strengths in your weaker area. As you gain experience developing design projects, you will start to personalize your design process and be able to estimate how long it takes with a fair degree of accuracy. This will help you to estimate project design costs more accurately and gauge the steps needed to bring a project to a successful conclusion.

1. How does communication design work within the constraints of print and media?
2. How does the creative process relate to strategic problem solving?

3. How is the creative process related to the design process?
4. What are the critical phases of the design process?
5. How does project research help to define a communication problem?
6. What are some examples of brainstorming techniques that generate multiple concepts based on a common message?
7. How does using a metaphoric device generate concepts?
8. How do concepts translate into messages within a visual form?

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Suggested Reading

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Chapter 3. Design Elements, Design Principles,

and Compositional Organization

- Utilize basic design principles relating to visual composition
- Define design terminology pertaining to form
- Describe organizational systems and core principles for layout grids
- Differentiate between typographic categories
- Establish a visual hierarchy within a layout
- Express ideas using the principles of composition and form

Communication design is essentially the crafting of a message meant for a specific section of the public. This written message is infused with meaningful and relevant visual components. The composition of these components should amplify, clarify, and enhance the message for the viewer. To assist in making sound design choices, a designer applies principles of composition and principles of organization to the design elements selected for a project.

Understanding how to utilize the fundamentals of design elements, principles, and composition is necessary to be able to confidently move through the stages of the design development process and build a project from the initial design brief to the final published design work.

Definitions from various design sources about what comprises a design element are consistent for the most part, but defining design principles is not as consistent and varies from one text to the next. Marvin Bartel's (2012) definitions of these categories are both simple and on point. He defines a visual element as any "basic thing that can be seen," and a design principle as a method for "arranging things better." Also included in this chapter are organizational systems that can focus and direct the overall direction a composition will take.

3.2 Visual Elements – Basic Things That Can be Seen

Point, line, and plane are the building blocks of design. From these elements, designers create images, icons, textures, patterns, diagrams, animations, and typographic systems. (Lupton & Phillips, 2014, p. 13)



Figure 3.1 Design using points, lines, planes

Point

A point is a precise position or location on a surface. In purely mathematical terms, a point marks a set of coordinates — it has no mass at all. In this objective definition, a point is essentially a place. Visually, a point is a dot and therefore the basic building block of every variation of line, texture, and plane.

Subjectively, the term *point* has a lot of power. *Point* can direct attention, be the focus of attention, create emphasis, and cut through veiled information. The compositional term *focal point* brings the objective and subjective together by being the first place the eye is drawn to in a composition and usually contains the most important piece of visual communication.

Line



Figure 3.2 Lines (by Ken Jeffery)

A line is the second most basic element of design — a line is a collection of points arranged in a linear manner (see Figure 3.2). A line connects two points, or traces the path of a movement. A line can be actual or implied — for instance, as a composition of two or more objects in a row. Lines in nature act as defining planes — examples are a horizon or the silhouette of a forest against the sky. Long straight lines do not often occur in nature, and therefore when they are present, they tend to dominate the landscape visually. Natural settings are usually parsed by the eye into shorter sequences of curved or straight lines and organic shapes.

When made by the hand, a line is created by the stroke of a pencil, pen, brush, or any mark-making tool. These lines can be thin or wide, and are expressive and distinct, reflecting the texture of the tool used to make them. Lines can create a plane (a shape) by being clustered together or by defining a shape. If the line is thickened, it changes and becomes a plane. When lines are made digitally, they can acquire many of the same qualities possessed by hand-drawn lines through the application of effects.

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Plane



Figure 3.3 Planes

Like lines, planes (shapes) can be organically made or they can be geometric, as in the example shown in Figure 3.3. A plane is a flat surface that has defined borders. “A line closes to become a shape, a bounded plane” (Lupton & Phillips, 2014, p. 38). Planes are excellent compositional tools for clustering visual elements into visual fields. A plane can also act as a separating device and allow the viewer to see that one section of information is not linked to another.

In design software, a vector graphic is a shape created by defining its parameters with a line, and then filling it with a solid or textured fill. Grids help to create and define typographic planes that float or interact with solid planes of image, texture, or colour. In the physical world, everything is composed of shapes that are either two- or three-dimensional. How you choose to organize and arrange the planes in your photograph, your illustration, or your design will structure the composition and determine not only how the elements intersect with one another but also how the viewer interacts with the composition.

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Colour



Figure 3.4 Colours

Graphic design has evolved over the last two centuries from a craft that designed text and images primarily in black and white for books and broadsheets, to a craft that works with full colour in analog and digital media and on every kind of substrate. Controlling and effectively using colour to support communication is now more important than it has ever been. Both media and advertising have become very sophisticated over the last few decades and are adept at creating exciting, sensuous, and energetic environments that are crafted with the skillful use of colour and texture. The public, in turn, has absorbed these unprecedented levels of image saturation with a variety of outcomes. One is an expectation that the visual palette match and enhance the message. A second outcome is a high expectation for strong and authentic visuals of places or objects. A third outcome is a cultural nostalgia for earlier looks created by various devices. Examples like 8-bit graphics or 1950s Kodachrome both possess unique colour and texture palettes and have properties the public can discern. When one of these nostalgic colour palettes is applied to an image, it adds another layer of meaning to the work, and that meaning has to make sense for the viewer.

The explosion of tools for making and sharing digital photography and graphics also reveals how good the general public has become at crafting visuals with relevant atmosphere and texture. The bar has been raised very high with colour use in contemporary times, and understanding colour basics is an absolute necessity.

RGB and CMYK Colour Spaces

Given that design and colour are united in every project, it is important to realize that there are two colour systems, and often a project needs to work in both. Digital media works in the additive colour system, and its primary colours are red, green, and blue (RGB). In this system, the absence of colour equals black, while combining all colours results in white. RGB is the colour system of visible light

(see 48 Chapter 3. Design Elements, Design Principles, and Compositional Organization

Figure 3.5). This light system is called *additive* because the three primaries together create all the hues in the spectrum.

Subtractive colour is the system needed for print media, and its primary colours are cyan, magenta, yellow, and black (CMYK), as shown in Figure 3.5. In CMYK, the absence of colour equals white, while combining all colours creates black. Both of these systems have many overlapping colours but their colour spheres are not exactly the same. Understanding where the overlaps exist and where they don't correspond is vital to the success of a project. If your print materials cannot be replicated on screen, you will have a major design problem that will have to be corrected. Always choose colours that will work in both systems.

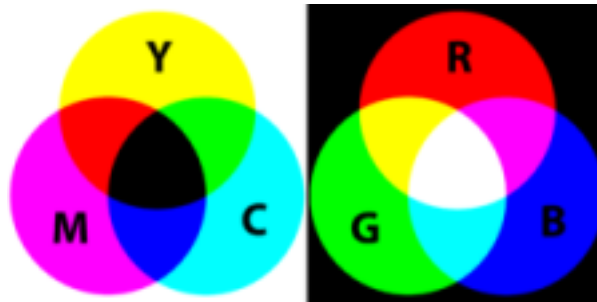


Figure 3.5 Primary colours for the additive and subtractive colour schemes

Environment is another aspect of colour choice that is very important. Both the natural world and the world within the screen vary from moment to moment and screen to screen. Colours are affected and influenced by the amount of atmospheric light available to them as well as by the colours in contact with the object they are viewing. Texture also changes our perception of a colour as does the brightness or darkness around it.

However much a designer hopes to define the parameters of a colour palette, there will always be unknown factors influencing the palette on the viewers' end. Create a palette that is focused enough to create the right atmosphere and energy level for your project, but one that doesn't rely too heavily on a specific colour. Careful, considered colour use will help define a message and create a mood that supports the composition and concept of a design work. Always create a palette that will work with both colour systems and also be robust enough to work in less than optimal environmental circumstances.

Negative Space

Negative space, which is also called *white space*, is the visually quiet area that surrounds the active area of a composition (see Figure 3.6). It is also referred to as figure/ground, and has a very important role in composition as it shapes the visual perception of the subject. Without negative space, there is no positive space — the effect is similar to seeing a polar bear in a snowstorm. Negative space is often thought of as passive and unimportant, but the active elements or ‘figure’ are always perceived in relation to their surroundings by the mind of the viewer. The composition of the negative space frames and presents the active elements in a flat or dynamic way. If the surrounding area is busy with many other elements, the focal point loses its power because the elements all have a similar visual value. The works of Gustav Klimt exhibit this quality.

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Figure 3.6 Example of negative or white space

If, on the other hand, the work is balanced and the negative space is active, it brings energy to the form and its space. The focal point or figure increases its visual power because there is contrast for the eye. Another way to look at this is to see that the range or gamut of visual activity is increased and therefore the experience is more satisfying to the eye.

When designers play with reducing or confusing positive and negative space, they create ambiguity. Ambiguity creates tension, which increases the interest of a composition to the viewer and also increases the visual energy of a design. There are three types of figure/ground relationships.

Stable figure/ground is the most common type. The positive element is clearly separate and defined against its negative space. A good example of this is text blocks in magazines or books.

Reversible figure/ground is the second type and is found in most of the work of M.C. Escher. Both the positive and negative space delivers ‘active’ information that feels equal to the eye and therefore creates a toggling effect in the viewer. One shape is comprehended while the other acts as its negative space, then the opposite happens and the negative space becomes meaningful and its opposite becomes

the neutral 'holding' space.

Ambiguous figure/ground creates a confusing lack of focal point. The eye searches for a dominant visual 'starting point' in the composition but can't find one. Often this creates energy, and if the effect is compelling, it invites the viewer to stay with the work for a long period of time, absorbing all of the visual information.

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Figure 3.7 FedEx express truck

Designers often utilize figure/ground in the crafting of symbols, wordmarks, and logos because of its capacity to create meaning with the space surrounding a mark. An excellent example of figure/ground is the FedEx wordmark (see Figure 3.7). The negative space needed to define the letterforms also augments their meaning by creating a forward pointing arrow. In print design, negative space can also allude to what is outside the frame and makes the field of the page or poster larger than it physically is. On a static or moving screen, negative space has the ability to change the flow of time, to introduce a break, or to create space around an important point.

Composing strong figure/ground tension is an excellent skill to acquire for designers of any media. Crafting white space eventually becomes as important to a designer as selecting the words and the elements of a project. Composing the negative spaces of a composition will allow you to vary visual emphasis of the elements, and control and increase the visual energy overall.

Texture



Figure 3.8 Example of texture

Texture is a visual and a tactile quality that designers work with (see Figure 3.8). Texture is used both in composition and also on the printed substrate or media space. Designers create textures for their

projects with anything at hand. A texture can be made with typography, generated in raster or vector software like Photoshop or Adobe Illustrator, or by using a camera and capturing elements in the material world.

Using texture thoughtfully will enhance a visual experience and amplify the context for the content. Often adding texture adds visual complexity and a bit of visceral depth to a two-dimensional design

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project. It can also tie one piece of design to another, or become a defining element of a brand or a series of communications.

The tactile aspect of a design work comes into play with the choices we make for the substrate we print on. The surface can be smooth or rough, glossy or matte, thick or thin, translucent or opaque, paper, plastic, concrete, metal, wood, or cloth. Paper can even have two or more of these qualities if we augment the original look of the paper with layers of varnish that reverse the tactile effect of the substrate. Often the choice of substrate is most effective if it is sympathetic to or contrasts with the concept and content of the piece. The choice of substrate texture affects how the viewer perceives the content — both physically and optically. Glossy substrates often feel sophisticated, hard, and cold. They are imbued with a sense of precision because the ink sits on top of the surface of the paper and retains almost all of its original integrity. A textured matte paper feels organic, accessible, and warm because the ink is partially absorbed by the paper, and is therefore influenced by and fused to its softer characteristics.

Pattern is part of the element of texture, but because of its special ability to hold content that is meaningful, and its long and significant cultural history, it deserves a special mention. All patterns can be reduced to dot and line and are organized by a grid system of some kind. Their ‘flavour’ is a reflection of the culture and time they come from and of the materials that created them. Patterns can be a subtle addition to the content of any design work. A pattern can be created using a relevant graphic (like a logo) or repeated multiple times, or it can support the organizational principles developed by the designer in a decorative way; for example, if a grid is based on the square and the texture of the pattern is also based on the square.

When the pattern is seen as a whole, its individual components melt away and lose their identity to the larger field of the pattern. This ability to focus on a pattern in multiple ways creates a second purpose for the graphic element (such as a circle, a square, a logo, or symbol) the designer has used. In modern design practice, pattern is an opportunity to augment the clean and simple material surfaces we work with and ornament a page or a website with a relevant texture.

Typography

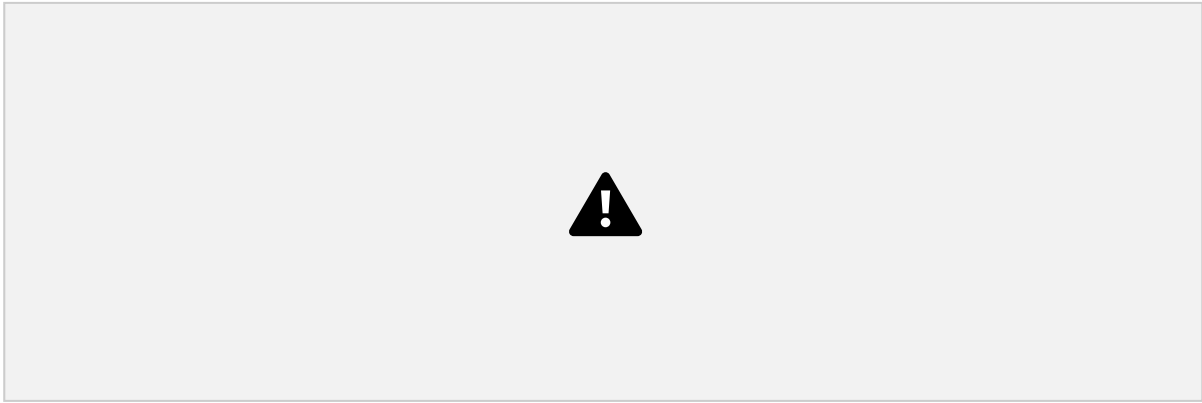


Figure 3.9 Typography

Typography is the medium of designers and the most important element we work with (see Figure 3.9).
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Typography not only carries a message but also imbues a message with visual meaning based on the character of a font, its style, and its composition. Words are meaningful in and of themselves, but the style and composition of words tells a reader you are serious, playful, exciting, or calm. Typography is the tonal equivalent of a voice and can be as personal or as general in flavour.

Typography traditionally has two functions in most design projects. One function is to call attention to or to ‘display’ the intent of a communication. This function is called titling or display typography and it is meant to call attention to itself. The second function is to present the in-depth details of a communication within a text block. This function requires a different typographic approach — one that is quiet and does not call attention to itself. Instead, it is intended to make the content accessible and easy to read.

Font Categories

There are many ways to categorize and subcategorize type. This overview discusses the seven major historical categories that build on one another. Serif fonts comprise four of these categories: humanist, old style, transitional, and modern. Italics, first designed in the 1500s, have evolved to become part of a font ‘family’ and were at one time a separate category. They were initially designed as independent fonts to be used in small pocket books where space was limited. They were not embraced as text fonts, but were considered valuable for adding emphasis within a roman text and so became part of the set of options and extensions a font possessed. The trajectory of use is the opposite for the sans serif category. Sans serif fonts have historically been used for display only, but in the 20th century, they became associated with the modern aesthetic of clean and simple presentation and have now become very popular for text-block design. Egyptian or slab serif fonts can be used as either display or text depending on the characteristic of the font design.

Blackletter

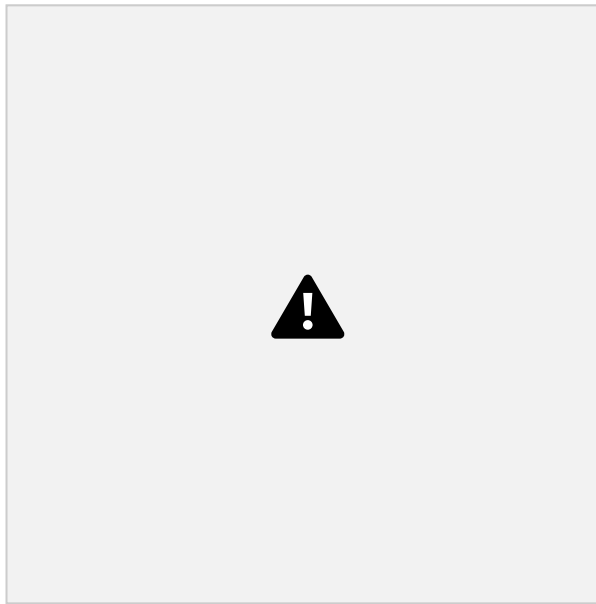


Figure 3.10 Example of Blackletter type

Blackletter was the medieval model for the first movable types (see Figure 3.10). It is also known as
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Block, Gothic, Fraktur, or Old English. The look of this font category is heavy and dark. The letterforms are often condensed and put together tightly in a text block creating a dark colour (tone) for a page — between 70% and 80% grey. To put the tone in context, the usual tone of a modern text page is between 55% and 70% grey. The look of the letterforms makes it hard to read the page, because legibility was not their first function as it is today. The beauty of the font and the form of the book was the primary goal for early publications. Books were considered to be objects of wealth and beauty, not solely as a means to convey information.

Humanist

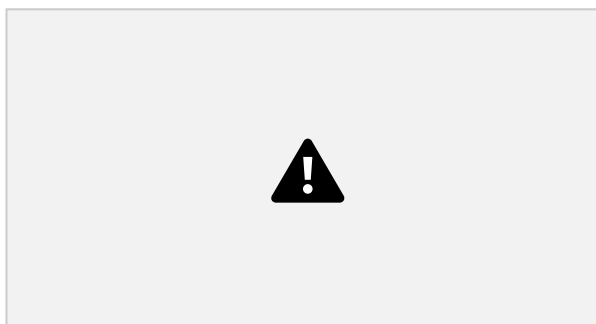


Figure 3.11 Example of Humanist type

Humanist fonts are also referred to as Venetian, because they were developed in and around Venice in the mid-15th century (see Figure 3.11). Their design was modelled on the lighter, open serif letterforms and calligraphy of the Italian humanist writers. The designers strove to replicate many of the characteristics found in this writing style, including multiple variations of a glyph (letterform) that a written document possessed. For instance, a font could have up to 10 different lowercase a's to set a page with. Humanist types were the first roman types. Though they were much easier to read and lighter on the page than blackletter, they still created a visually dark and heavy text block in contrast to

the fonts we have become accustomed to. Humanist fonts have little contrast between the thick and thin strokes — the strokes are usually heavy overall. The x-height of a humanist font is small compared to contemporary fonts, and this impedes quick comprehension and legibility. Humanist fonts are not often used for these reasons, though they are well respected because they are the original model so many other fonts are based on. It is important to remember that these fonts were a perfect match to the earliest printing technologies and that those presses could not have printed our light and delicate fonts. Fonts have evolved alongside the technological advancements of the printing industry.

Examples of humanist fonts include Jenson, Centaur, Verona, Lutetia, Jersey, and Lynton.

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Old Style

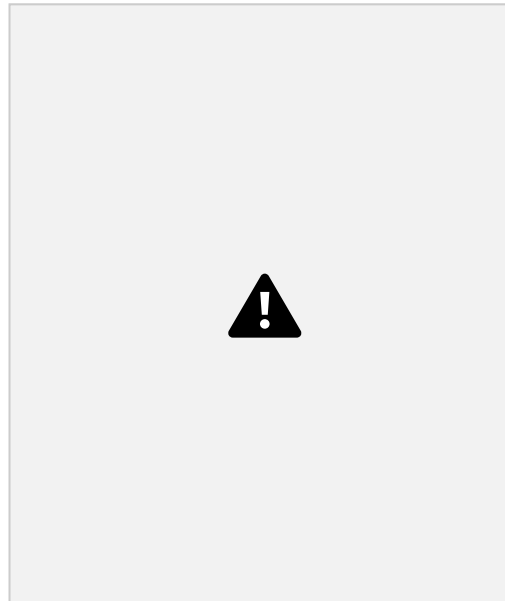


Figure 3.12 Example of Old Style type

Old style fonts, also known as Garalde fonts, are the next leap in font design, and their stylistic developments were driven by the technological advancement of presses and the improved skills of punchcutters (see Figure 3.12). Font designers began to explore the possibilities of their medium — both the metal of the punches and the abilities of the presses and their papers. The letterforms became more precise, their serifs more distinct. The contrast of the stroke weights was also increased, and the presses held true to the design and didn't distort them. The aim of these new fonts ceased to be about replicating the look of handwriting and more about refining the letterforms to create a lighter overall tone.

Examples of old style fonts include Goudy Old Style, Granjon, Janson, Palatino, Perpetua, Plantin, and Sabon.

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Transitional

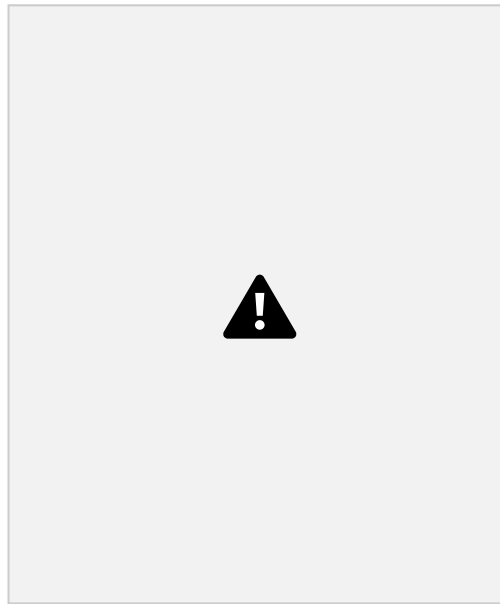


Figure 3.13 Example of Transitional type

A few centuries later, font design was again refined, and this time the impetus came from France and the Enlightenment movement. Fonts were created along the rationalist principles of the times. The strokes were contrasted further with very thick main strokes and very thin sub-strokes, and the serif, which capped the stroke, did not use bracketing (the rounding underneath the intersection of the two strokes). The letterforms took on a look that implied they were constructed mathematically and anchored within a grid. These new fonts broke with humanist and old style tradition and ceased to reference calligraphy.

Examples of transitional fonts include Baskerville, Bookman, Fournier, and Joanna (see Figure 3.13).

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Modern

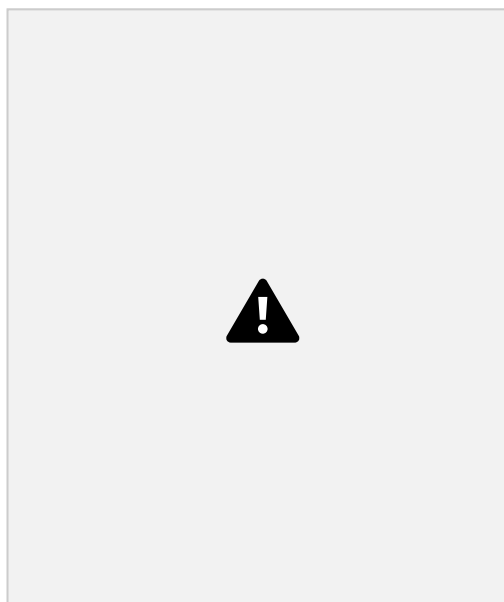


Figure 3.14 Example of Modern type

Modern fonts are also known as Didones and take the contrast started by the transitional fonts much, much further (see Figure 3.14). Bodoni is an excellent example font as nearly everyone can bring to mind the extreme contrast of its thick and thin strokes. The Frenchman Didot and the Italian Bodoni were the first to bring this design style to the public. Its major attributes align with the Romantic period's aesthetics.

Romantic letters can be extraordinarily beautiful, but they lack the flowing and steady rhythm of the Renaissance forms. It is that rhythm which invites the reader to enter the text and read. The statuesque forms of Romantic letters invite the reader to stand outside and look at the letters instead. (Bringhurst, 2004, p. 130)

The major characteristics of modern fonts are extreme contrast between thick and thin strokes, clean, unbracketed, hairline serifs, and a completely vertical axis. These fonts have an almost mechanical look because of their precise, sharp, and clean appearance. They also possess an elegance that compliments the time period they emerged in. Modern fonts are often used as display fonts and can sometimes be used for text, though very carefully.

Examples of modern fonts include Fenice, Zapf Book, New Caledonia, Bodoni, and Didot.

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Egyptian

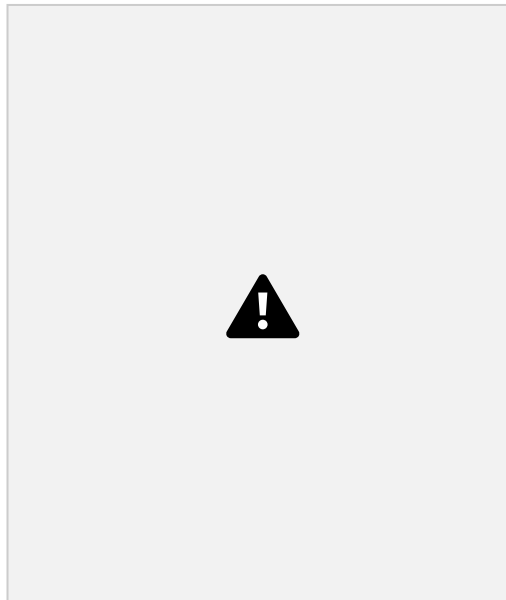


Figure 3.15 Example of Egyptian type

Egyptian is also known as slab serif, square serif, or mechanical (see Figure 3.15). This category of font was created in England in the 1880s — a design expression of the industrial revolution. The category was named Egyptian because of the popularity of all things Egyptian after Napoleon's return from a three-year Egyptian expedition. The name of the style has nothing to do with any element of Egyptian culture. The style was created initially for display copy, but over the centuries, fonts like Clarendon have become popular for setting text blocks because they contain the quality of objectivity and yet still feel traditional.

Examples of Egyptian fonts include Officina Sans and Officina Serif, Clarendon, and every typewriter font.

Sans Serif

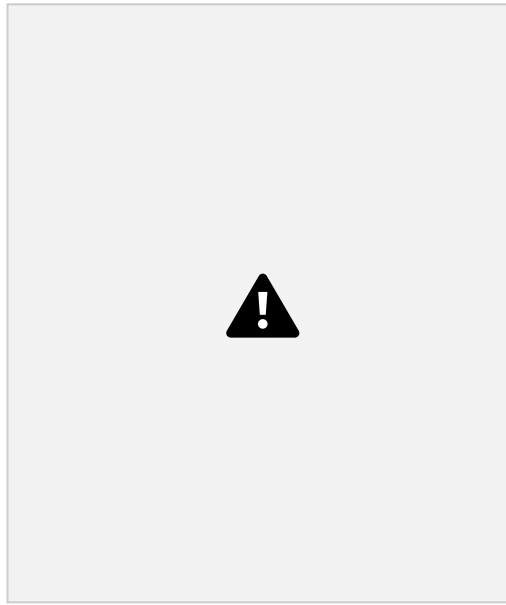


Figure 3.16 Example of Sans Serif

Sans serif fonts have existed since ancient times, but it was only in the late 19th century that font designers began to consider removing serifs and letting the letterforms stand on their own (see Figure 3.16). These fonts were initially considered appropriate only for titling and display purposes, and only became text fonts in the hands of the 20th-century modernists. The first sans serif forms were created on the early humanist and old style calligraphic forms, but eventually the forms were influenced by objective modernist principles and geometry.

Examples of sans serif fonts include Univers, Helvetica, and Akzidenz-Grotesk.

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3.3 Compositional Principles – Strategies for Arranging Things

Better Alex Hass

We have many words for the frustration we feel when an interface isn't directing us to what we need to know. Loud, messy, cluttered, busy. These words. . . express our feeling of being overwhelmed visually by content on a screen or page. We need them to express how unpleasant a user experience it is to not know where to direct our attention next. (Porter, 2010, para 1)

If everything is equal, nothing stands out. (Bradley, 2011)

The proper composition of visual elements generates not only visual stability, it enhances mood through composition and generates order that prevents visual chaos. Designers use compositional rules in their work to make the reader enter their work and experience a design environment that is calm yet exciting, quiet yet interesting. A magazine designer, for example, creates a grid and applies an order to the typographic elements creating a comprehensible hierarchy. This design system is interpreted in different ways, in pages and spreads, issue after issue. If the organizational system is versatile and planned with thought and depth, it can be used to produce unique and exciting layouts that remain true to the rules determined for the overall system initially designed. Organizational principles create a framework for design without determining the end results.

Compositional rules can be used to generate content as well as organize it. The Bauhaus artist and designer Laszlo Moholy-Nagy created a series of paintings by calling in a set of instructions to a sign painter using the telephone. Here is his account of the experience, written in 1944:

In 1922 I ordered by telephone from a sign factory five paintings in porcelain enamel. I had the factory's color chart before me and I sketched my paintings on graph paper. At the other end of the telephone, the factory supervisor had the same kind of paper divided in to squares. He took down the dictated shapes in the correct position. (It was like playing chess by correspondence). (Moholy-Nagy, 1947, p. 79)

Designing visual elements into a strong composition is a complex endeavour on its own, but increasingly designers are being asked to create vast compositional systems that other people will implement. Much like Laszlo Moholy-Nagy, designers need to be able to make strong compositional systems and also convey how their systems work, how to apply their rules, and how to apply them so they retain a relevant freshness.

Alignment



Figure 3.17 Alignment

Alignment refers to lining up the top, bottom, sides, or middle of a text, composition, or grouping of graphic elements on a page. Often a design composition includes a grid where the alignment of text blocks is dictated by the design of the columns of the grid (see Figure 3.17).

Typographically, horizontal alignment includes flush left (also called left justified or ragged right), flush right (also called right justified or ragged left), centred, and fully justified. Vertical alignment in typography is usually linked to baseline alignment. A baseline grid exists in digital software that is meant for layout of type and is the invisible line where font characters sit.

Contrast

Contrast is a visual device that increases the special character of both elements that have been paired. Contrast assists composition by creating focal points, and adds energy and visual range to a composition. Using contrast enables us to distinguish the qualities of one object by comparing differences with another. Some ways of creating contrast among elements in the design include the use of contrasting colours, sizes, and shapes. Johannes Itten, a design instructor and artist at the Bauhaus focused his research on the concept of contrast in both composition and colour. Itten's list of contrasts can be applied to both the composition and the atmosphere of a design work. His list includes these pairings: large/ small, hard/soft, thick/thin, light/heavy, straight/curved, continuous/intermittent, much/little, sweet/sour, pointed/blunt, light/dark, loud/soft, black/white, strong/weak, diagonal/circular. No design makes use of only one kind of contrast, but usually one dominates the others.

Colour Contrast

Johannes Itten also worked with contrast in his seminal theory of colour and determined that there are seven kinds of contrast.

1. *Contrast of hue* occurs when a hue or colour is separated by being outlined in black or white lines. White lines weaken the 'strength' and appearance of the colour and the colours around the white lines seem darker. In contrast, a black line around a colour strengthens the appearance of the colour, while the colours around the black lines appear to be lighter.
2. *Light-dark contrast* is the contrast between light values and dark values.
3. *Cold-warm contrast* refers to the contrast between cool and warm colours. Warm colours are the red, orange, and yellow colours of the colour wheel, while cool colours are blue, green, and purple.

4. *Complementary contrast* is the contrast between colours directly opposite each other on the colour wheel.
5. *Simultaneous contrast* occurs between two colours that are almost complementary. One colour is one section to the left or right of the complementary colour of the other.
6. *Contrast of saturation* refers to the contrast between intense colours and tertiary or muted colors. Muted colours appear duller when placed next to intense colours, and intense colours appear more vivid when next to a muted colour.
7. *Contrast of extension* refers to the contrast between the area of one colour and another. Different areas of one colour are needed to balance another.

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For text, contrast is achieved by using varied colours, serif and sans serif, type styles that are not often paired, or type in place of an image. As contrast in elements diminishes, the elements begin to feel similar, and the level of visual interest decreases.

Emphasis

A focal point in a composition draws the eye to it before the eye engages with the rest of the visual information. This is called *emphasis* and is achieved by making a specific element gain the attention of the eye. Emphasis is created in graphic design by making only one focal point and clearly emphasizing it by placing the elements on the page in positions where the eye is naturally drawn to the proper entry into the work. Designers rely on additional compositional principles to support the hierarchy of a composition such as contrast, repetition, or movement.

Designers use emphasis to assist viewers in identifying the relative importance of each element in a composition. Emphasis is strongly linked to visual hierarchy. Both emphasis and visual hierarchy create order for the viewer, allowing the eye to see the first element of importance, then the second, then the third, and so on. Graphic elements gain or lose emphasis by changing in size, visual intensity, colour, complexity, uniqueness, placement on the page, and relationship to other elements.

Movement

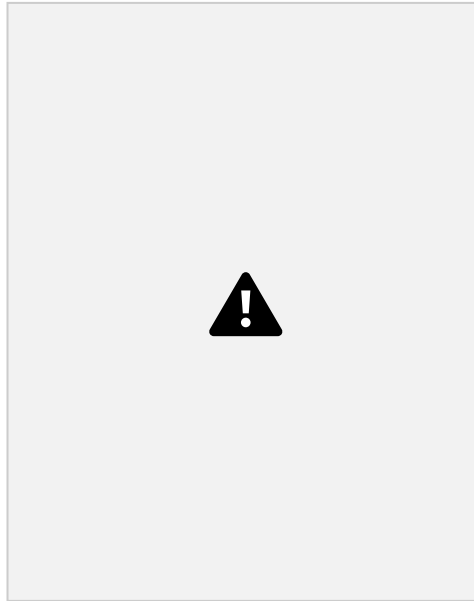


Figure 3.18 Example of movement

Movement is made by creating visual instability — like motion in a photograph that blurs the image, as shown in the example in Figure 3.18. Creating the illusion of movement photographically or artistically is not difficult because a blur translates into movement in the mind of the viewer. However, it is not

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the only option for a designer. A composition can also achieve movement if the graphic elements are arranged in a way that directs the eye to move in a specific direction — usually by creating a diagonal that takes the eye up to the right corner (forward motion) or down to the left corner (backward motion). Movement can also be created using overlapping planes that imply depth and distance by becoming progressively smaller and lighter in tone (mimicking depth). Using typography as a visual medium is also an option. Overlapping the text blocks and/or sentences effectively creates both depth and movement (though it destroys legibility). David Carson is a designer who often uses this technique to create movement in his work.

Scale

Varying scale (size) is one of the major tools in the designer’s toolbox. Changing scale is important on two levels. The first is purely compositional — a composition needs variety in the size of its elements to be dynamic and effective. If all the elements have the same visual weight, the composition will be flat. Another aspect to varied scale is conceptual. If a design visually distorts the size relation of one element to another, the viewer is instantly engaged in discovering why. This is a great method to engage the viewer and add a twist to the message embedded in the design. A great example of this is the [‘think small’ ad campaign](#) of the 1960s for Volkswagen Beetle.

The series is witty and engaging and plays on how we perceive size. This distortion is witty and playful, and presents smallness as desirable. Subtle scale differences do not make much visual impact, but large ones are very dramatic. The concept and context of a project should determine the relationship of scale differences for a composition. Large differences in scale are suited to dramatic and energetic design content, while smaller differences in scale are appropriate for professional and institutional content.

Proximity and the Gestalt Theory of Visual Relationships

Proximity of elements is part of Gestalt theory, which is a framework of spatial relationships developed in the 1920s by the German psychologists Max Wertheimer, Wolfgang Kohler, and Kurt Koffka. The term Gestalt means *unified whole*, and points to the underlying conceptual structure of this framework. Gestalt works because the mind seeks to organize visual information. A composition created using Gestalt principles predetermines how each of the elements within it interacts with the others spatially. In this system of relationships, close proximity of objects, regardless of shape, size, or content, indicates a connection. There are six basic Gestalt principles: (1) similarity, (2) continuation, (3) closure, (4) proximity, (5) figure/ground, and (6) symmetry and order.

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Similarity

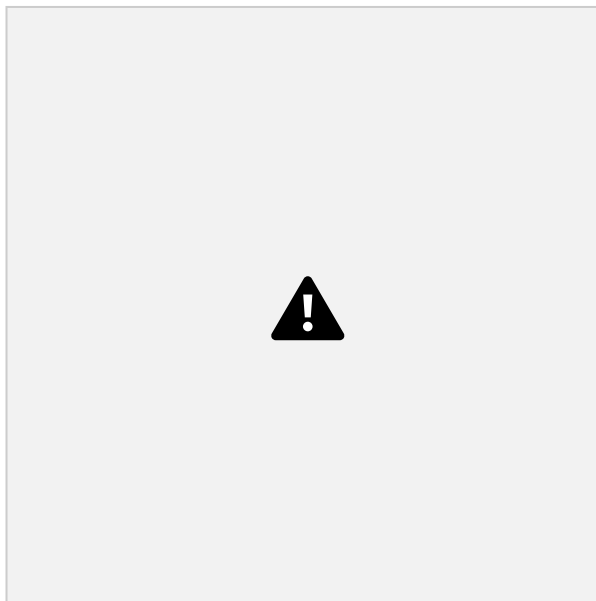


Figure 3.19 Similarity

When visual elements have a similar shape or look as one another, a viewer will often connect the discrete components and see a pattern or grouping (see Figure 3.19). This effect can be used to create a single illustration, image, or message from a series of separate elements. Similarity of medium, shape, size, colour, or texture will trigger a sense of similarity. The sense of grouping will be strengthened or weakened by increasing or decreasing the commonality of the individual elements.

Continuation

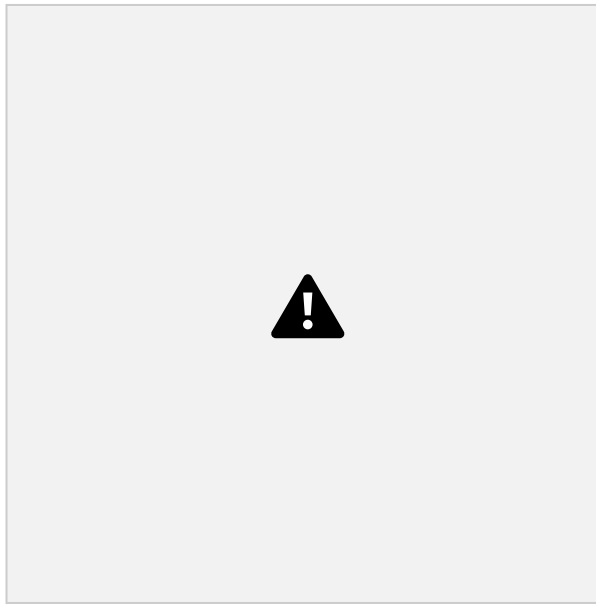


Figure 3.20 Continuity

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Continuation is the tendency of the mind to see a single continuous line of connection rather than discrete components (see Figure 3.20). The eye is drawn along a path, line, or curve, as long as there is enough proximity between objects to do so. This tendency can be used to point toward another element in the composition, or to draw the eye around a composition. The eye will continue along the path or direction suggested by the composition even when the composition ends, continuing beyond the page dimensions.

Closure

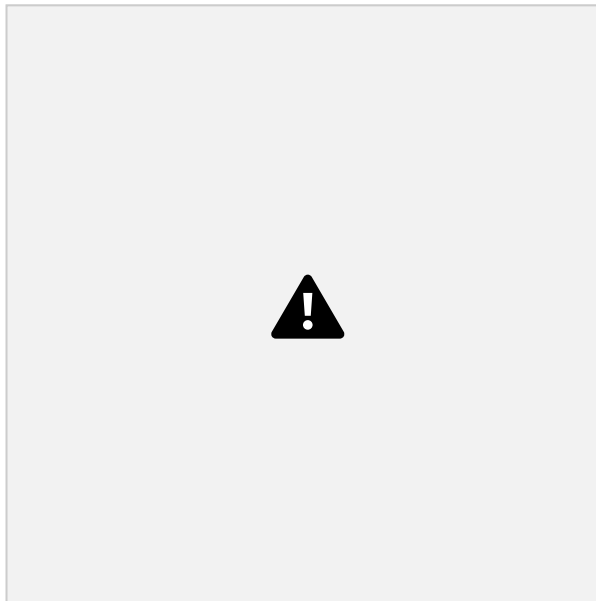


Figure 3.21 Closure

Closure is a design technique that uses the mind's tendency to complete incomplete shapes (see Figure 3.21). The principle works if the viewer is given enough visual information to perceive a complete shape in the negative space. In essence, the mind 'closes' a form, object, or composition. In the

example above , the triangle is formed by the viewer’s mind, which wants to close the shape formed by the gaps and spaces of the adjacent circles and lines. The partial triangle, outlined in black also hints at the missing shape.

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Proximity

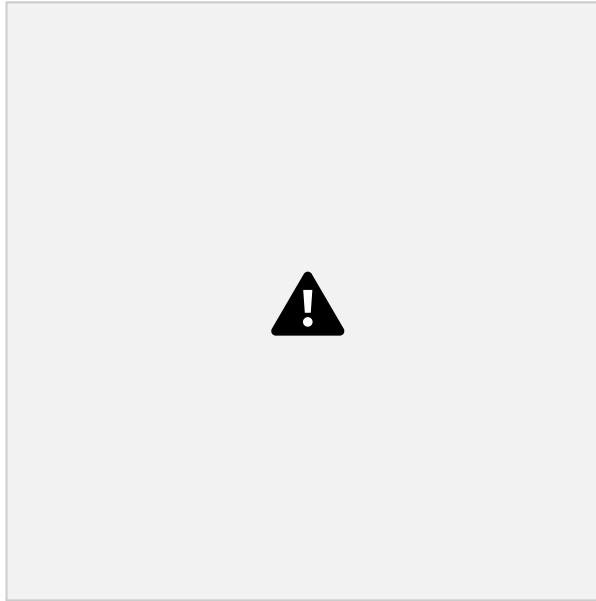


Figure 3.22 Proximity

Proximity is an arrangement of elements that creates an association or relationship between them (see Figure 3.22). If individual elements are similar, they will probably be perceived first as a whole and second as discrete components. If, like the example above, some of the components form to create a large ‘whole,’ similar elements positioned away from the main shape will also be associated with the large shape. In this case, the viewer interprets them as falling off or away from the main shape. The shapes used do not have to be geometric to create the effect of proximity. Any components have a strong commonality in shape, colour, texture, size, or other visual attribute can achieve proximity. Proximity can also be achieved with dissimilar shapes and textures if cleverly and conceptually composed.

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Figure/Ground

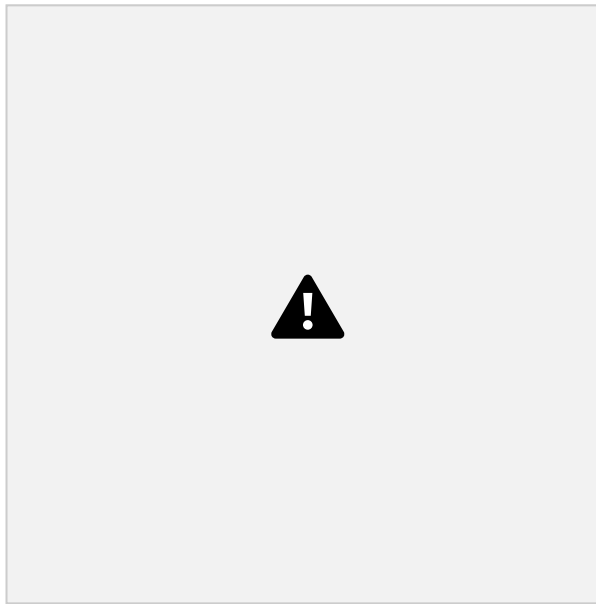


Figure 3.23 Figure/Ground

Figure/ground was discussed earlier, but it is part of Gestalt theory, so we present it here again. This principle describes the mind's tendency to see as two different planes of focus, information in both positive and negative space (see Figure 3.23). It works if those spaces are suggestive enough in their composition.

Symmetry and Order

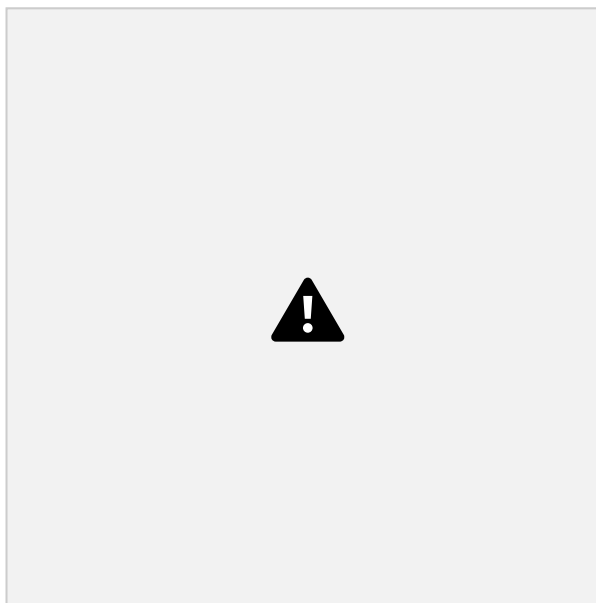


Figure 3.24 Symmetry

Symmetry and order follow the premise that a composition should not create a sense of disorder or imbalance (see Figure 3.24), because the viewer will waste time trying to mentally reorder it rather than

focus on the embedded content. The photographic example in Figure 3.25 is composed symmetrically

and allows the viewer to concentrate on the figure in the centre. Achieving symmetry in a composition also gives the composition balance and a feeling of harmony.

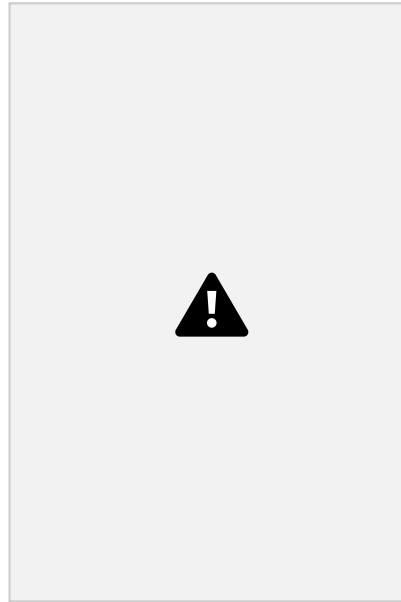


Figure 3.25 Example of symmetry and order

Rhythm

Rhythm is integral to the pacing of a design composition and is also necessary for creating a pattern, as used in the example in Figure 3.26. The pacing of a repeating motif or element at regular or irregular intervals within a design determines the energetic quality of a composition; it also creates a consistent and unifying backdrop for the introduction of new elements.

Rhythm is the effect produced in a magazine or book by varying the placement of elements within the grid structure. The changes in the density of elements and visual tones of the spreads translate into a rhythmic visual energy as the energy of each page grows or shrinks. Rhythm is the glue that connects one page to the next; it reveals recurrent themes and creates movement, tension, and emotional value in the content. When viewers understand the rhythm of a book, a magazine, or a website, they will also appreciate the variations that break with or punctuate the rhythm and create interest, change, or tension.