

# WHAT IS GRAPHIC DESIGN?



**Design is Communication.** *Cave of Forgotten Dreams* (2010) is a documentary film by Werner Herzog about the Chauvet Cave in southern France, which contains the oldest human-painted images yet discovered. Some of them were crafted around 32,000 years ago.

# WHAT IS GRAPHIC DESIGN?



Antiquité égyptienne du musée du Louvre. (Egyptian hieroglyph, Louvre Museum). Photo by Guillaume Blanchard

**Design is a means of expression.** Pictures of events evolved into depictions of ideas, recorded history and recorded thought. Past cultures often are available to us only through the work of some ancient designer.

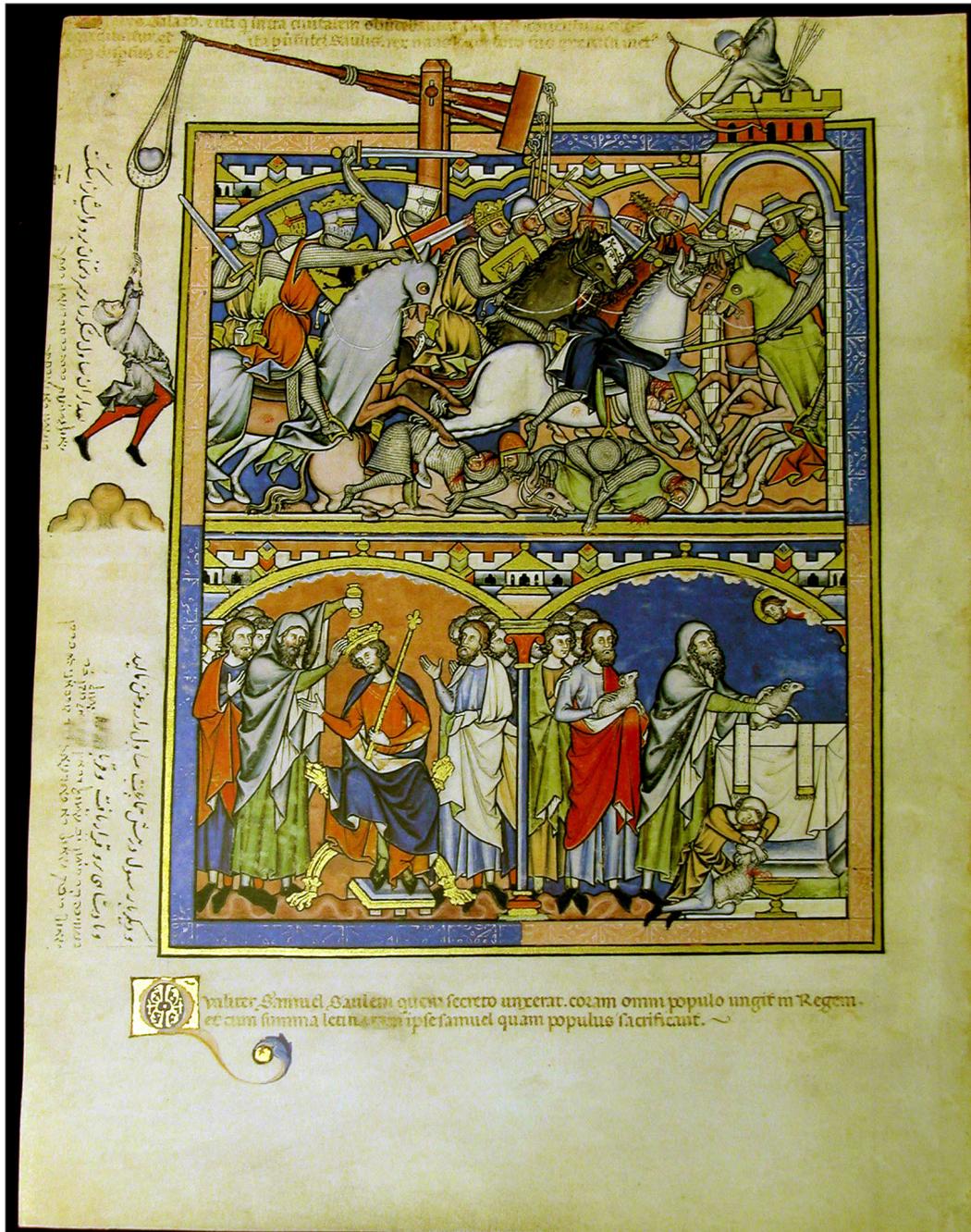
# WHAT IS GRAPHIC DESIGN?



A coffin mask of the Egyptian pharaoh Tutankhamun, the “boy king” who died in 1343 B.C. King Tut’s tomb held a treasure trove of ornamental objects.

**Design touches the senses.** The ‘decorative arts’ predate the Christian era by thousands of years. The images used in the tombs of Egyptian kings were things of beauty that held deep symbolic meaning.

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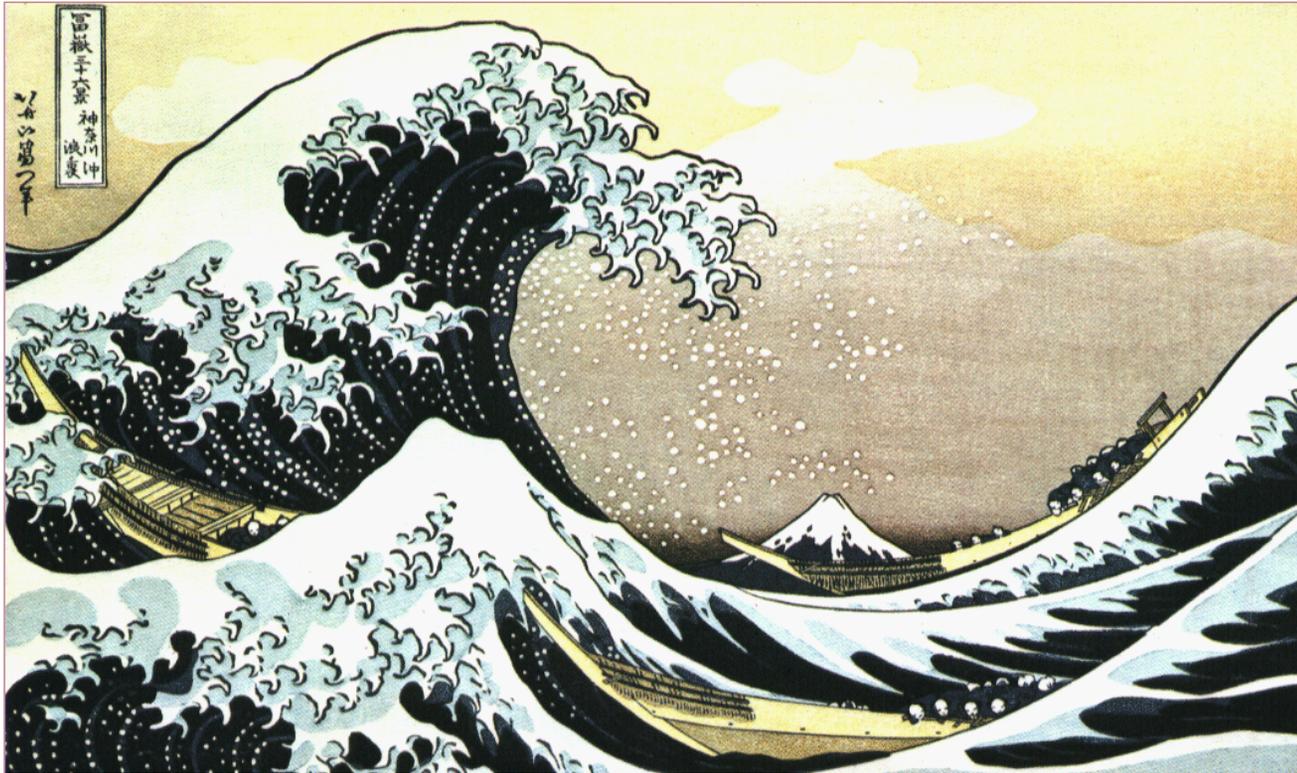


## Design is craftsmanship.

- Early designs were the products of craftsmanship.
- Graphic design, had the term existed, would have been expressed in one-of-a-kind examples of individual skill up until Gutenberg developed his practical system of printing around 1450.

The Morgan Crusader Bible was a picture Bible without text created for Louis IX of France (1226-1270). Unknown scribes added Latin texts to the margins. More modern inscriptions were added in Persian and Judeo-Persian.

# WHAT IS GRAPHIC DESIGN?



Katsushika Hokusai (1760-1849), **Behind the Great Wave at Kanagawa (神奈川沖波裏)**, from **36 Views of Mount Fuji**, color woodcut. Hokusai was a member of the Nichiren sect of Buddhism. For Nichiren followers, Mount Fuji has traditionally been linked with eternal life.

**Design is universal.** The desire to communicate visually is present in every culture, as is the urge to reproduce each visual message to reach a wider audience. The woodcut and block printing served this purpose in 18th Century Japan.

# WHAT IS GRAPHIC DESIGN?



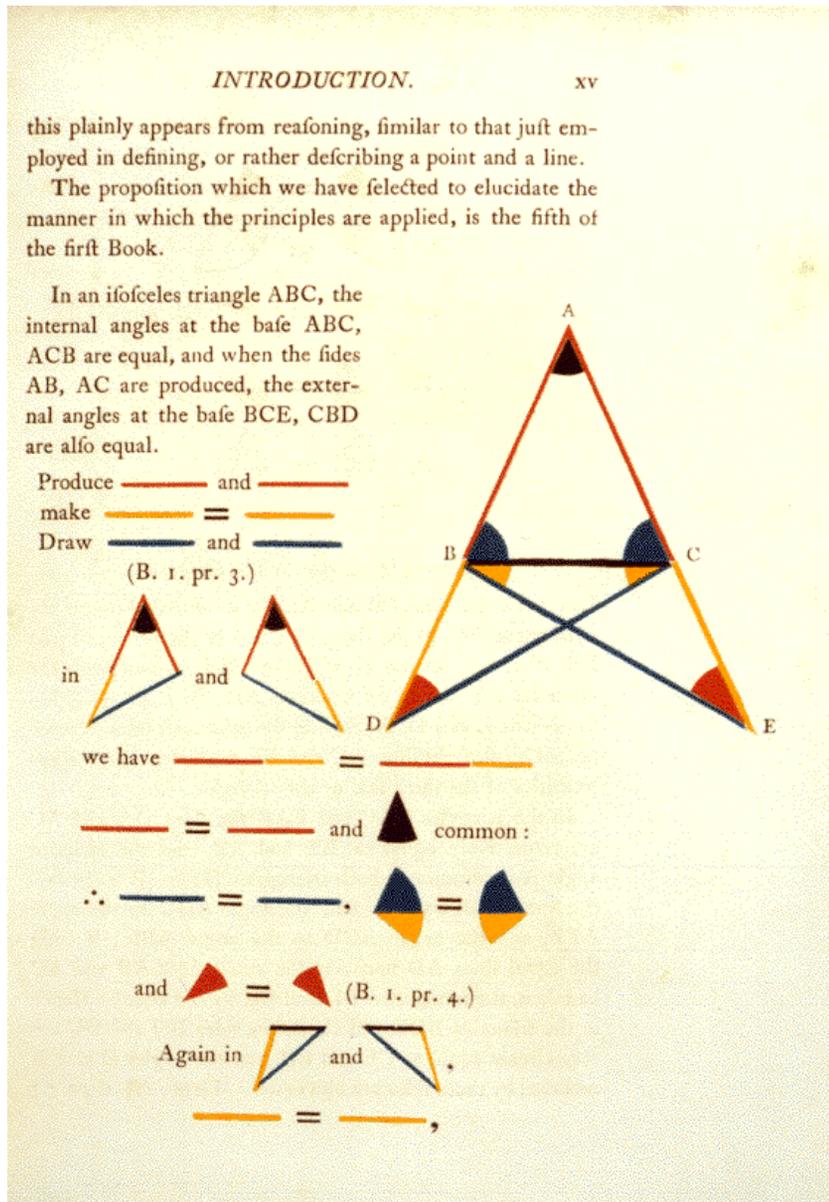
**Design today is reproducible.** Graphic design implies the ability to reproduce a design by some efficient method. The *Diamond Sutra*, a Buddhist scripture from 868 is the oldest known example of a printed book and was reproduced using carved wooden blocks for each page.

# DESIGN AND MASS PRODUCTION



In the late 1300s Koreans invented metal moveable type. Gutenberg made the process even faster around 1440 using a lead-based alloy that was used for 500 years.

# DESIGN AND MASS PRODUCTION



Separating design from production.

- ❑ Gutenberg's printing process was perhaps the first shot fired in the Industrial Revolution.
- ❑ Machine-made products replaced the handiwork of artisans.
- ❑ Poor aesthetic quality was a hallmark of mass production in the 18th and 19th centuries.
- ❑ William Pickering (1796-1854) insisted that books he design be of high quality.
- ❑ He played a major role in the separation of graphic design and print production.

Oliver Byrne (1847) **The Elements of Euclid**. It is one of the most significant books that Pickering designed. Diagrams were printed in brilliant primary colors. Read more about this book on [The Science Project blog](#).

# THE BAUHAUS

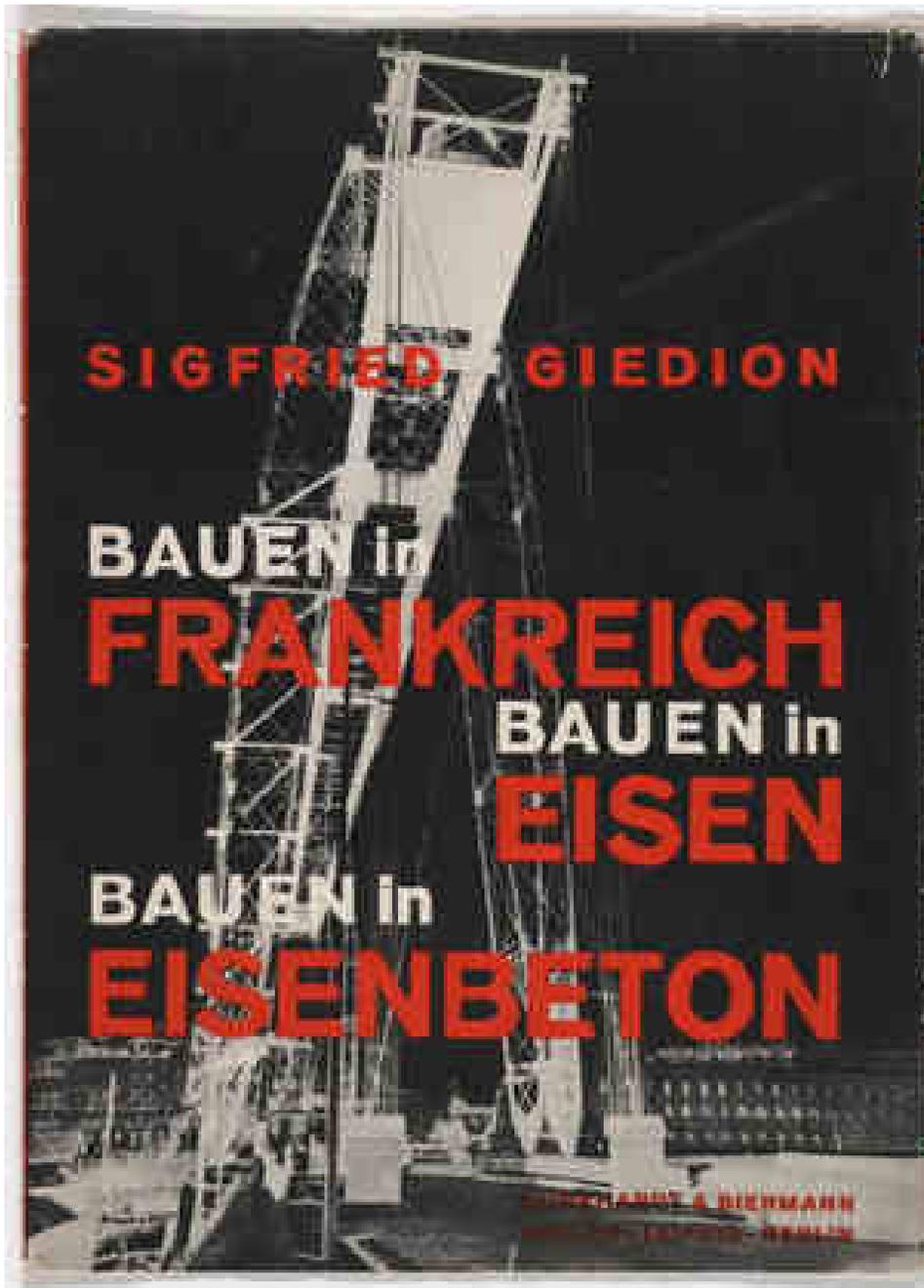


Gropius House,  
1938  
Lincoln, Mass.  
Walter Gropius,  
founder of  
the Bauhaus,  
designed this  
house as his  
family home in  
1937, when he  
came to teach at  
Harvard's  
Graduate School  
of Design.

## Reconciling design and production.

- ❑ The Bauhaus School (1919-1933) sought 'universally valid forms' that would allow for efficient mass production of quality work.
- ❑ The artists and designers of the Bauhaus were guided by architect Louis Sullivan's famous dictum: **Form follows function.**
- ❑ The word 'bauhaus' means 'house for building,' reflecting the movement's roots in architecture that eschewed the decorative.

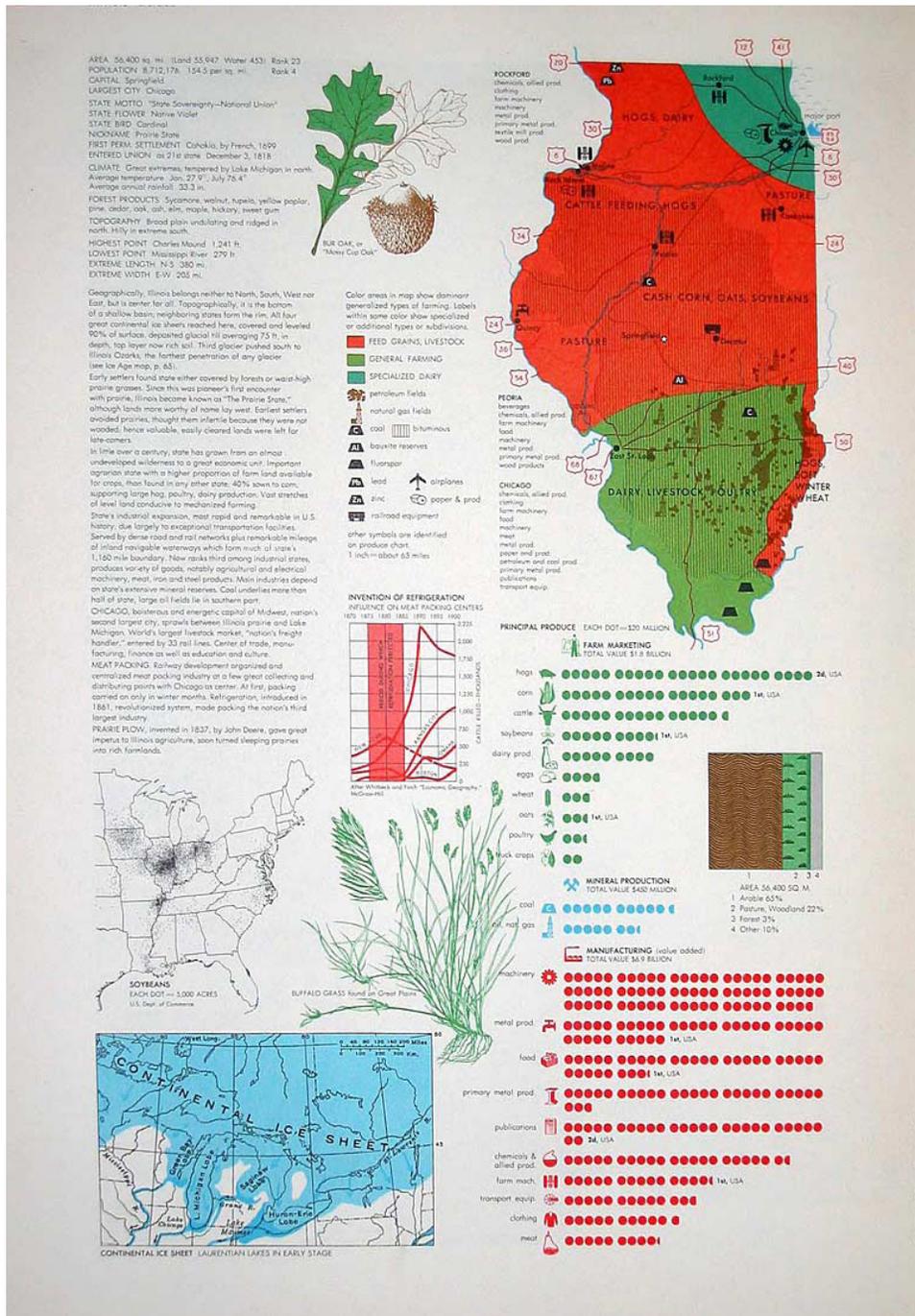
# THE BAUHAUS



Book cover design by László Moholy-Nagy.

- László Moholy-Nagy used the biological sciences to generate functional forms.
- He believed that the future held the possibility of a new harmony between humans and their earthly environment if forms in design followed biological functions.
- “Functionalist” design was a matter of saving society from the degeneration that Adolf Loos and other modernist architects had associated with traditional ornamental arts.

# THE BAUHAUS



- Herbert Bayer believed that the full attainment of the human potential was to come in designs based on a union between the sciences and craftwork.
- Graphic design would be functional if its form followed human conscious and subconscious reactions to light and structure.

World Geographic Atlas (1953), designed by Herbert Bayer (1900-1985). Bayer, an Austrian designer, painter, photographer and architect, studied for four years at the Bauhaus, then served as the school's director of printing and advertising. "I quote the Japanese saying, First acquire an infallible technique, and then open yourself to inspiration," Bayer wrote.

# WAYS OF THINKING ABOUT GRAPHIC DESIGN



Farnsworth House, Plano, Ill., is one of Mies van der Rohe's most significant works. It is a masterpiece of minimalist design, where every nonessential item has been stripped away.

## **Simplification, honesty and clarification.**

- ❑ Architect Ludwig Mies van der Rohe's motto **less is more** describes a way of arranging necessary components to create an impression of simplicity.
- ❑ This Minimalist architecture can apply to any design where all parts and details are reduced to the point where no one can remove anything further to improve the design.

# THE BAUHAUS



- The Bauhaus tried to resolve the tension between the logic of technology and the creative process by balancing the forces of machine vs. individual.
- The issue was not if technology should be harnessed, but how.
- One solution was the development of versatile underlying structures, such as grids for print production.

Zeitschrift fuer Gestaltung (Magazine for Design), Cover page 1928  
Bauhaus designers pioneered the use of a basic grid that would be flexible enough to allow for creativity but also would bring order to the page and serve the needs of

# WAYS OF THINKING ABOUT GRAPHIC DESIGN



- ❑ The ideas of the Bauhaus help us organize our thoughts about design as it relates to production.
- ❑ As we try to automate design on the computer, the Bauhaus experience still resonates.
- ❑ The Bauhaus made design important. Today, design is everywhere we look.

Staatliches Bauhaus, Weimar (1923)

Herbert Bayer's book cover is an example of Bauhaus experiments in typography, begun under the leadership of László Moholy-Nagy, who contributed an essay titled "The New Typography" to this volume.

# PUSHING THE BOUNDARIES

## The creative edge.

- Being “creative” involves pushing a design to the front edge of what consumers will accept.
- Originality is prized.
- Raymond Loewy expressed this need for innovation with the phrase, **Most advanced, yet acceptable (MAYA)**.



ABOVE: Studebaker Avanti (1961) designed by Raymond Loewy, called the father of industrial design. LEFT: 1955 Jaguar XK140 that Loewy designed; it was never built. “I sought excitement and, taking chances, I was all ready to fail in order to achieve something large,”



# SATISFYING THE CUSTOMER



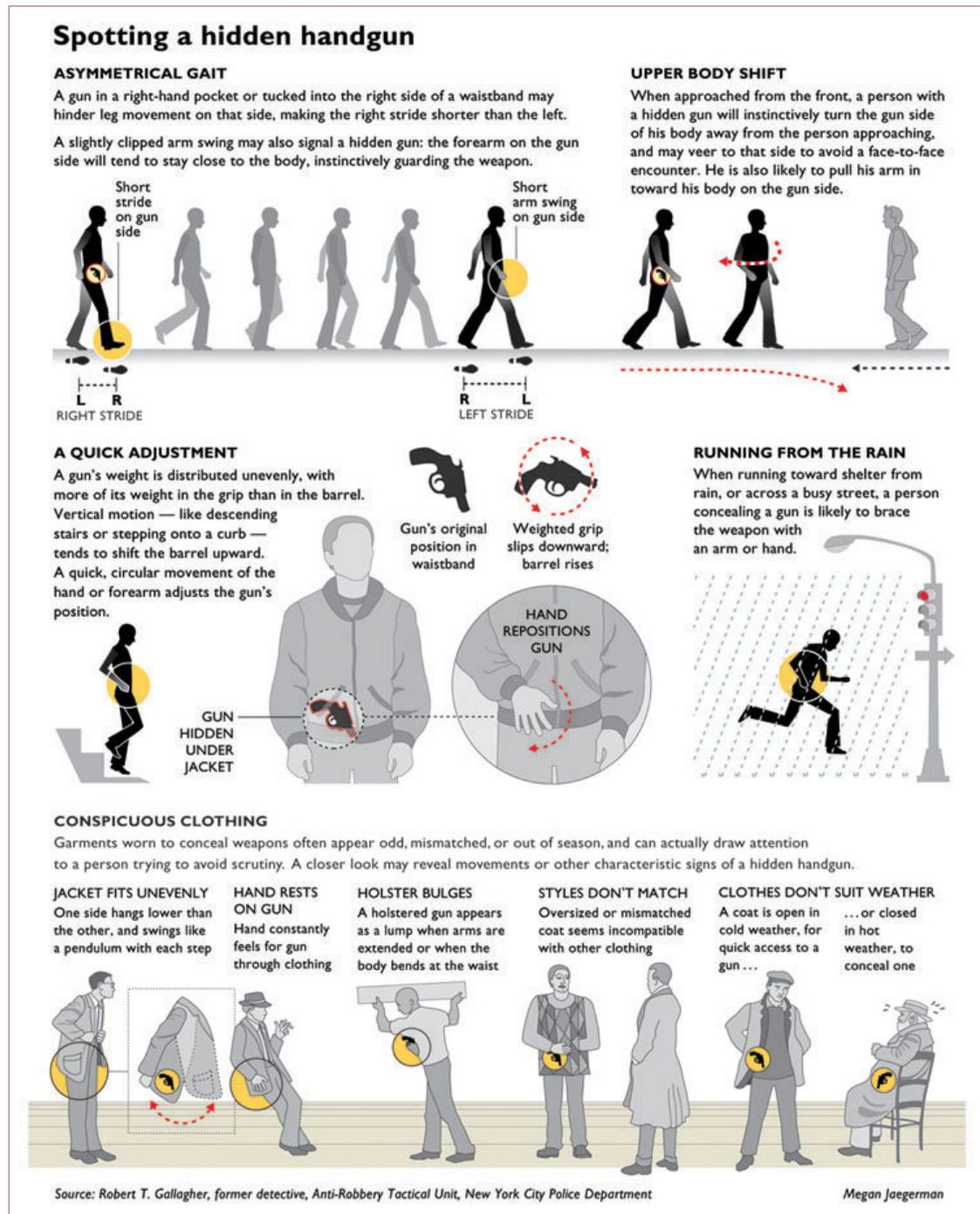
J Mays, left, and Carroll Shelby introduce the Ford Shelby GT500KR at the 2007 New York Auto Show. Mays says, “I now understand there’s a large group of people out there who could give a flip about my high-design philosophy. They just want something that’s important to them in their lives.”

- A new generation of industrial designers, exemplified by Ford’s J Mays, aims to bring us what we want rather than products that are prisoners of engineering and manufacturing.
- “Cars have become appliances instead of something you lust after,” Mays says. “We’ve been designing from the inside out—hawking sheet metal to consumers instead of considering their wants and aspirations and desires.”

# DESIGNING INFORMATION

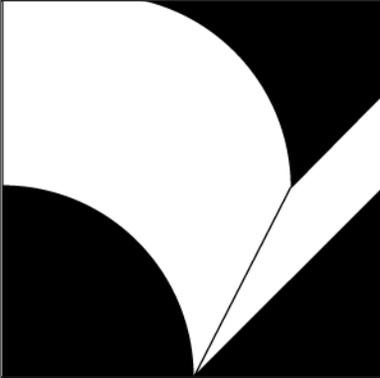
## Design transparency.

- In a good design, Edward Tufte says, “The users become unaware of the design ... they become enthralled with content.”
- Beatrice Warde stated that in designing for easy reading, “There is nothing simple or dull in achieving the transparent page.”
- For Warde, typography was a “crystal goblet,” revealing the fine wine within.



Megan Jaegerman's graphic on handguns appears in Edward Tufte's book Beautiful Evidence.

# DESIGN ENGINEERING



- ❑ Good designs are easy to build, something of key importance in periodicals that have to be made over and over again.
- ❑ British designer Frank Ariss states, “There are many designers who are pretty good with the glib talk, but when they put it to paper, it doesn’t work. ... You’d never be able to print or make the bloody thing.
- ❑ “You have to roll your shirtsleeves up, and it becomes a project.”

Among Ariss’ many projects, the redesign of the Minneapolis Tribune is marked by brilliant details — such as the logo that reflects the geometry of the press and of the reader.

# DESIGN ENGINEERING



In his redesign of the Minneapolis Tribune, Ariss developed a typography and page structure that anticipated the paper's current and future production needs, especially the transition to computer typesetting and cold type composition.



# WAYS OF THINKING ABOUT GRAPHIC DESIGN

## In summary:

- Design must be satisfying to user and designer
- Form follows function
- Design serves content; design **is** content
- Less is more
- Try for the most advanced, yet acceptable design
- Design must consider the demands of production

“Applied good taste is a mark of good citizenship. Ugliness is a FORM of anarchy.”

— Lester Beall

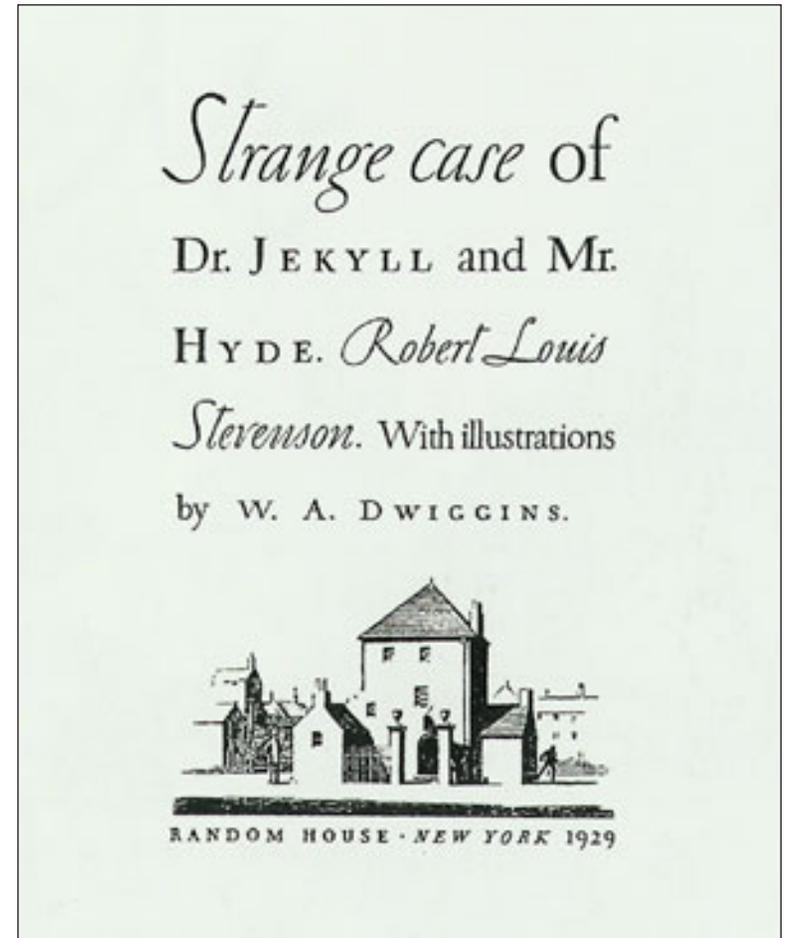


Caterpillar Inc. logo designed by Lester Beall in 1968 on a machine in Nonaburg, Tenn. You can view more of Beall's work at the AIGA Web site.

# DEFINING “GRAPHIC DESIGN”

- The term “graphic design” is relatively new.
- “It was not until 1922, when the outstanding book designer William Addison Dwiggins coined the term ‘graphic design’ to describe his activities as an individual who brought **structural order and visual form to printed communications**, that an emerging profession received an appropriate name.”

— Philip Meggs,  
*Meggs’ History of Graphic Design*



W.A. Dwiggins (1880-1956), main title page from a 1929 edition of the Robert Louis Stevenson classic. **You can buy Dwiggins-designed typefaces from Linotype.**

# DEFINING “GRAPHIC DESIGN”

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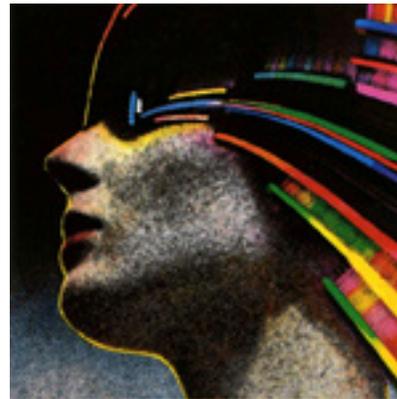
- v. tr.
1. To conceive or fashion in the mind; invent.
  2. To formulate a plan for; devise.
  3. To plan out in systematic, usually graphic form.
  4. To create or contrive for a particular purpose or effect.
  5. To have as a goal or purpose; intend.
  6. To create or execute in an artistic or highly skilled manner.
- n.
1. A drawing or sketch.
  2. A graphic representation, especially a detailed plan for construction or manufacture.
  3. The purposeful or inventive arrangement of parts or details.
  4. The art or practice of designing or making designs.
  5. Something designed, especially a decorative or an artistic work.
  6. An ornamental pattern.

# DEFINING “GRAPHIC DESIGN”

Graphic design is a purposeful and systematic process for creating an end product that communicates effectively.

## **Know your purpose.**

Designers give form to visual texts that satisfy the functional, psychological and aesthetic needs of users. A designer starts by “interrogating the brief,” meaning that the designer studies the project until its meaning is clear, and the needs and desires of the client are fully understood.



# THE DESIGN PROCESS



Avoid the “ready, fire, aim” syndrome; plan the work, work the plan.

# DEFINING “GRAPHIC DESIGN”

More time is spent studying the environment where the design is to be used.

## **Design is a systematic process.**

A good designer follows a step-by-step process that works for him or her. But all designers incorporate the steps above. The mistake of the novice designer is to skip to the “DO.” First, the designer must put in the proper time in **studying** the design problem.

Next comes a period of **thought** about connections, qualities or concepts that arise from the design brief. Finally, before executing the project, the designer must come up with a suitable plan for executing the design.



Massimo Vignelli, Minneapolis Museum of Fine Arts. Vignelli designed the signs and other graphics when the museum was restructured in 1974. Vignelli says his goal was “to understate the presence of structures supporting the works of art. ... We wanted our design not to interfere with the art, but to interact with the architecture of the old and new wings of the museum.” Read more at [Vignelli Associates](#).

# DEFINING "GRAPHIC DESIGN"

## Creativity starts with structure.

Designers must have expertise to create visual forms for information systems.

Designers must advance how we use new technologies in our everyday lives.

Designers must be forward thinking to advance our visual vocabulary.

Massimo Vignelli designed the Unigrid System in 1977 for the National Park Service. The modular grid system sized at ISO A2 (420mm x 594mm) allowed the NPS to create brochures in 10 basic formats and to keep a consistent, recognizable structure across all its materials. This flexible, economical

**Saratoga**

National Park Service  
U.S. Department of Interior  
National Historical Park  
New York

### General John Burgoyne

24 February 1752 – 4 August 1792. A British army officer, politician and dramatist. He first saw action during the Seven Years' War when he participated in several battles, mostly notably during the Flanders Campaign of 1762.

Burgoyne is best known for his role in the American War of Independence. During the Saratoga campaign he surrendered his army of 6,000 men to the American troops on October 17, 1777. Appointed to command a force that would capture Albany and end the rebellion, Burgoyne advanced from Canada but soon found himself outmaneuvered and outbranded. He fought two battles at Saratoga, but was forced to open negotiations with Horatio Gates. Although he agreed to a convention on 17 October 1777, which would allow his troops to return home, this was "subsequently revised" and the men were made prisoners. Burgoyne faced criticism when he returned to Britain, and never held another active command.

Burgoyne was also an accomplished playwright known for his works such as *The Maid of the Oaks* and *The Heiress*, the latter as a member of the House of Commons of Parliament for a number of years, sitting for the seats of Rutland and Preston. He is often referred to as Gentleman Johnny.

### Other Commanders

<b>William Howe</b> 1729–1790 Only after the end of the war did he become Commander-in-Chief of British forces during the American War of Independence.	<b>Benedict Arnold</b> 1741–1801 An American Revolutionary War officer who led the surprise attack on Fort Mifflin and the Battle of Red Bank during the American War of Independence.	<b>Sir Henry Clinton</b> 1730–1805 An American Revolutionary War officer and politician, best known for his role in the American War of Independence.

### British Attack

On September 19, 1777, the Royal army advanced upon the American camp at three separate columns with the general's Red Bank at Saratoga and Saratoga. Two of them headed through the dense forest covering the region, the third composed of German troops, marched down the river road.

On the opening of April 16, 1775, the British had wanted to bring an end to the rebellion in the American colonies. They believed that 1775 could be the year British General John Burgoyne had believed, since his 1776 arrival in North America. That the American colonies "had been" "upon" "the" "year" "1776" "was" "precisely" "the" "route" "an" "army" "ought" "to" "take" "should" "involve" "before" "necessary." That belief formed the backbone of the British plan to invade New York, a daring scheme to utilize separate armies in an effort to isolate New England, the perceived heart of the rebellion, and then focus on crushing the rest of dissent.

A large army—about 10,000 soldiers, Native troops, supplies, camp followers, and others—were to invade south from Canada into New York. Making their way using Lake Champlain to the Hudson River, they would overtake south, eventually reaching Albany. Once in Albany, they would meet up with other troops and on communications lines with the City of New York, also in British hands. A second British army, led by Colonel Henry St. Leger, was to depart from Lake Ontario and invade eastward into New York, upon arriving at the Mohawk River, they would follow it to its confluence with the Hudson. Soldiers in that area, they were to rendezvous with Burgoyne's forces.

General William Howe and his British troops in New York City were the third element in the plan. They were to soon reoccupy the Fort Mifflin region, capturing a new town in the south part of New York and giving American soldiers near Albany the appearance of being isolated from both north (Burgoyne) and south. The American forces would, in theory, have no choice but to divide and address both invading armies at the same time. It was hoped the smaller American force being Burgoyne would provoke little resistance; the small American force further south would become stuck between British and American forces.

By August 1777, Burgoyne had successfully captured Fort Mifflin, a strategic military position. People at Mifflin were told that there was a supply depot just north of where the Hudson takes its sharp turn west. His army would stay at Fort Edward, on the edge of the river. Remaining there the month of August.

In early September, Burgoyne's army began their southwest march again. Soldiers marched on the river road, while many of the supplies were loaded on boats down the Hudson. The British, who by now had passed to the west side of the Hudson, were only days away.

### America Defends

On 19th September the British approached the British American camp on the west bank of the Hudson River at Bemis Heights. The British force advanced on the American army, first commanded by the British officer, Major General Horatio Gates in three columns, one by the river under the German Colonel Benedict Arnold, the second by the British under Burgoyne and the third, commanded by Brigadier Fraser making a wide outflanking detour to the American left. The plan of the British was to take the unfortified hill to the west of the American positions on Bemis Heights.

Arnold pressed Gates to leave his entrenchments and attack the British but he was reluctant to leave what he saw as the riskiest moving out of his fortified camp. Burgoyne developed his intentions for the attack, the 9th, 24th, 42nd and 50th Foot. Fraser came up on the right, with the Grenadiers, Light Companies and the 20th Foot, towards the heights on the American left, and Rossford began his approach along the riverbank. This phase of the battle was known as Freeman's Farm and was hard fought, leaving the British in occupation of the ground at nightfall (see The Battle of Freeman's Farm).

By 7th October 1777, in spite of considerable success in the southern reaches, Gates had not made any real progress on the Hudson River. Burgoyne determined to launch the delayed attack on the American positions on Bemis Heights. By this time Gates had been considerably reinforced and had some 12,000 men against around 4,000 British and Germans. A critical moment in the fighting Brigadier General Fraser was mostly abandoned by one of Major's Hottel. Arnold spared the Americans to continue the attack and was himself severely wounded. The British and Hottel troops began to give way and after the rebuff held by Colonel Blyden and his regiment was taken, Burgoyne withdrew his force to his higher camp above the Hudson River.

The next day Burgoyne's army came up the river hills camp they had built at Saratoga. The American army pursued Burgoyne and enveloped the British positions. Burgoyne led his last desperate retreat to Fort Mifflin, hoping that Clinton's army would come up the Hudson River from the South to his relief. A major difficulty in the campaign was communications between the British forces. Almost all the messages attempting to carry messages were caught and handed by the Americans.

Burgoyne avoided news of Clinton's advance until 17th October 1777, when he was forced to sign the convention by which his army surrendered to Gates who had by then between 18,000 and 20,000 men.

### General Horatio Gates

129 July 1727 – 12 April 1806) An retired British soldier who served as an American general during the Revolutionary War. He took credit for the American victory at the Battle of Saratoga. Benedict Arnold also had a part to play in the defeat of the British when he was injured in the leg and was forced to leave the field. As a result of the battle, the British were forced to retreat to the Hudson River. Gates was one of the "Revolution's most controversial military figures" due to his role in the Capture of Fort Mifflin, which allowed the British to capture George Washington through a wherrying campaign, the ongoing historical debate over who should receive credit for the victory at Saratoga, and Gates' actions after the capture of Saratoga.

By Congressional resolution a gold medal was presented to Gates to commemorate his victories over the British in the Battles of Red Bank, Fort Mifflin and Saratoga. Gold and bronze replicas of this medal are still awarded by the Adjutant General's Corps Regimental Association in recognition of outstanding service.

Gates proposed following up Saratoga with an invasion of Canada but the proposal was rejected by Washington.

### Other Commanders

<b>George Washington</b> 1732–1799 The commander in chief of the Continental Army during the American Revolutionary War. He is best known for his role in the Battle of Saratoga.	<b>Benedict Arnold</b> 1741–1801 An American Revolutionary War officer who led the surprise attack on Fort Mifflin and the Battle of Red Bank during the American War of Independence.	<b>Daniel Morgan</b> 1736–1800 An American Revolutionary War officer and soldier, best known for his role in the Battle of Red Bank during the American War of Independence.

### Historic Attractions

**John Nelson Farmhouse**

This charming little red farmhouse, with a nearly 180-degree panoramic view of the area, was built by John and Lydia Nelson in 1775 or 1776. A small, hand-hewn house it would come to play an important role in history.

When the war resumed that a southward-moving British Army was moving down the Hudson River valley, basically through their back yard, John and Lydia joined their neighbors in leaving the immediate area. Lydia was to stay with her parents in Stillwater, about two miles south of the house. John, who was a sergeant in the local American militia regiment, was called up for militia duty.

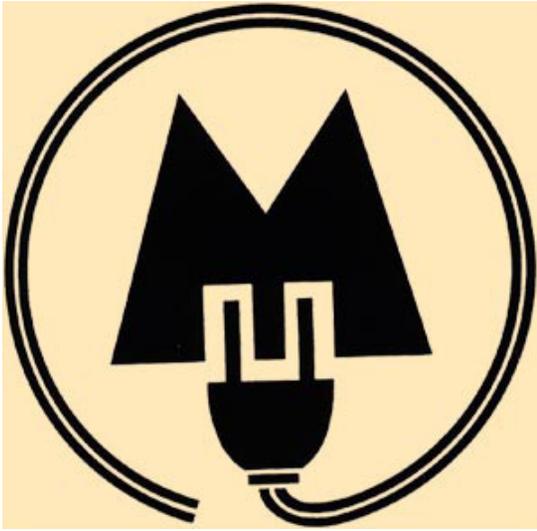
**Saratoga Monument**

Saratoga Monument, which you see here, commemorates the American victory in the Battle of Saratoga. The Revolutionary War battle has been called "the most important battle of the last 1000 years." It was the turning point in the war, the British troops recognize and assistance, without which the experiment of American independence would likely have ended in failure.

**The Great Redoubt**

The area where a British system of fortifications was used to guard the Hudson, artillery park, supplies and a food depot located on the river falls. After the American attack on 7 October 1777, the British evacuated the Redoubt. The British withdrew to these positions on 8 October 1777, when General Fraser and his troops located Old Saratoga where they surrendered on 17 October.

# FUNCTION OF DESIGN: IDENTITY



- Corporations use distinctive symbols, called logotypes or logos, to help build product identification and consumer loyalty.
- Typography, color and space become linked to a company and its products.
- Likewise, a publication is immediately recognizable by its typography and architecture.

Identity through design, clockwise from top left: Monowatt Corp., William Metzger; United Parcel Service, Paul Rand; Enron, Paul Rand; New York, Milton Glaser; Shell Oil, Raymond Loewy.

# FUNCTIONS OF DESIGN: INFORMATION



**MANIFESTHOPE**  
AUGUST 25 - 28 **Denver, CO** GALLERY

Art plays a pivotal role in creating cultural momentum. The Manifest Hope Gallery celebrates that role and shines a spotlight on artists across the nation who use their voices to amplify and motivate the grassroots movement surrounding the Obama Campaign. The Manifest Hope Gallery highlights the central themes of the progressive grassroots movement- Hope Change, Progress, Unity and Patriotism.

The Manifest Hope Gallery, housed within Denver's Andenken Gallery, and an additional transformed warehouse space, spans 10,000 sq. ft. and will draw together works as varied as the voices of the artists, who created them. Manifest hope will showcase some of the finest modern contemporary artists acclaimed, NY painters and sculptors, activated grassroots and street artists, and present the most widely recognized pieces seen throughout the 2008 presidential primary campaign, as well as newly commissioned works and previous works on loan from some of the United States top artists.

**MON 8.25.08**  
**THUR 8.28.08**  
**10A-5P DAILY**  
[www.manifesthope.com](http://www.manifesthope.com)  
**2990 LARIMER ST.**  
**DENVER, CO 80205**

*MoveOn.org* POLITICAL ACTION  
andenken gallery  
Larimer  
STUDIO NUMBER ONE  
evolutionary  
**OBEY**

- The task of carrying information varies from project to project.
- Whatever the goal, the designer must understand the structure of the information and base decisions on bringing out that structure.

Invitation to the Manifest Hope Gallery, an art exhibit held during the Democratic National Convention, August 2008 in Denver. An image created by street artist Shepard Fairey combines with display type and text on a neatly

# FUNCTION OF DESIGN: EXPERIENCE



- ❑ A well-designed object provides more than just beauty. It provides satisfaction by being pleasant to look at and pleasant to handle, and by fulfilling its function.
- ❑ Nobody knew this better than Apple's Steve Jobs, who said, "In most people's vocabularies, design means veneer. ... But to me, nothing could be further from the meaning of design."
- ❑ "Design is the fundamental soul of a human-made creation that ends up expressing itself in successive outer layers of the product or service."

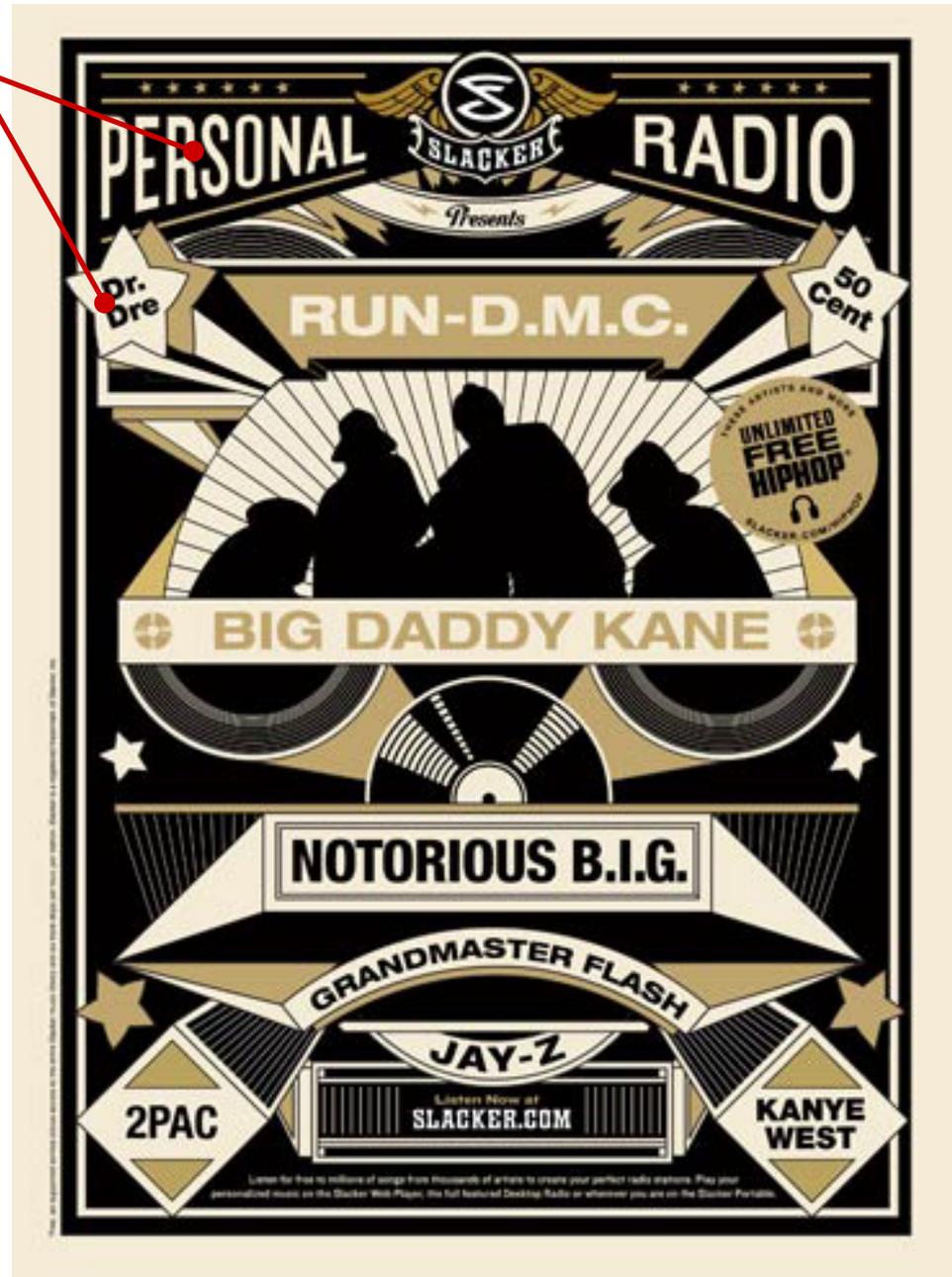
The iPod reflects the insight of Apple CEO Steve Jobs that look and feel differentiated a product from its competitors.



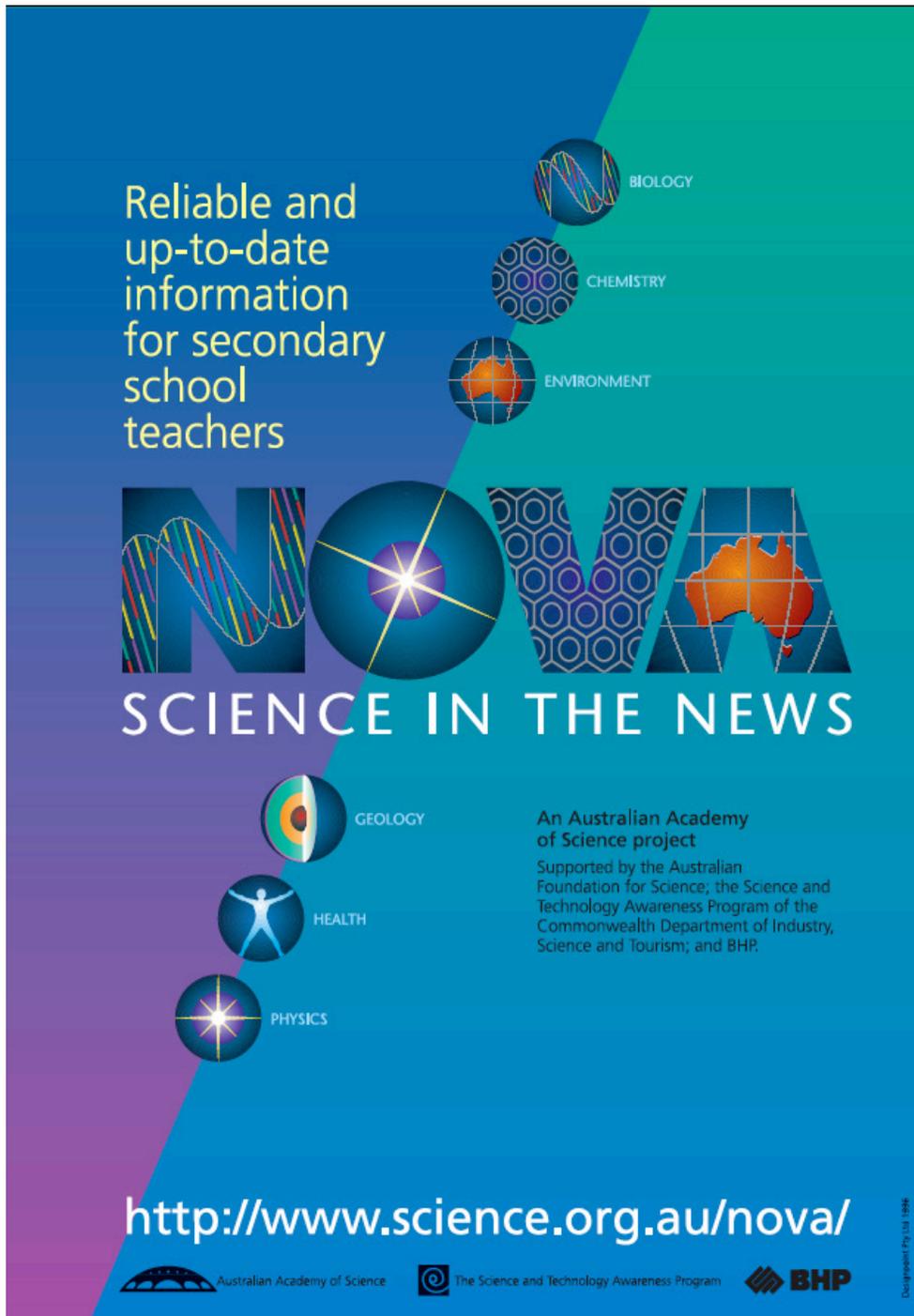
# ELEMENTS OF GRAPHIC DESIGN

## TYPOGRAPHY

- **Typography** is the balance and interplay of letter forms on the page.
- It is a verbal and visual equation that helps readers understand the form and absorb content.



# ELEMENTS OF DESIGN: TYPOGRAPHY



## Expressive display type.

- Typography is the most flexible and most powerful tool a print designer has.
- When combined with color and space, it provides a powerful identity. It is the key to design personality.

NOVA, poster shows the imagery possible using typography.

# ELEMENTS OF DESIGN: TYPOGRAPHY

ANNALS OF ARCHITECTURE

## THE PSYCHOLOGY OF SPACE

*Can a Norwegian firm solve the problems of Times Square?*

BY DAVID OWEN



*Rising from a fjord, Snohetta's Oslo Opera House has become a kind of public square.*

The home of the Norwegian National Opera and Ballet, in Oslo, resembles a glacier that's calving great wedges of glass and white marble, and at night its windows, which are huge, project sheets of amber light onto the Oslo Fjord. Yet the Opera's main impact, since its opening, in 2008, has been civic rather than aesthetic. It was built on an old industrial site as part of a larger effort to reclaim a stretch of ruined waterfront, and, despite its unpromising location, its roof—which slants upward from the harbor and seems to emerge from the water—has become a busy public square. Parents push baby carriages to the top; tourists pull suitcases from the train station; swimmers, sunbathers, kayakers, and swans treat the western edge as a beach. Dog walking, Tai Chi, and sunset watching are popular. For a performance of "Carmen" in 2009, the opera company showed a free simulcast on a large screen in front of the building, and some five thousand people spread picnic blankets on the roof to watch it. During the building's inaugural performance, a young couple were discovered making love above the auditorium. One of the architects told me that he considered their act both a compliment and the building's "consummation."

The Oslo Opera House was designed by the Norwegian architecture firm Snohetta, which was named for an object (a mountain in central Norway) rather than for a star partner or partners. There are two principals, both in their fifties: in Oslo, Kjetil Thorsen, who is Norwegian; and in New York Craig Dykers, who is American but has spent most of his life in Europe, including sixteen years in Norway. Both downplay their personal contributions to the firm's designs, and neither has an instantly recognizable style. Dykers described Snohetta's approach to me as "collectivist," and said that "anyone can suggest anything about anything." Thorsen called the firm's ethos "open, direct, accessible, egalitarian—strange value words that don't mean anything until you see what they do."

One manifestation of that ethos has been an eagerness to take on potentially exasperating public assignments. Snohetta's first American commission was for an entrance pavilion at the National September 11 Memorial & Museum, at the site of the World Trade Center. The pavilion isn't large, but, because of a succession of complications involving the entire site, the building is still unfinished, eight years after the contract was awarded. More recently, the firm was chosen by New York City to, in effect, redesign Times Square—one of the city's most famous landmarks and, for residents, perhaps its most despised one. A third of a million people pass through the square daily, yet the visitors are mainly tourists and their predators, and when the big theatres let out on summer evenings the human crush can seem cataclysmic. Among Snohetta's goals, Dykers told me, is to reconfigure the space in such a way that city residents will stop walking blocks out of their way to avoid it. Construction is expected to begin this summer.

Both the Times Square and the Oslo Opera projects are attempts to use architecture to alter a city's relationship to itself. Both also depend on successfully managing the complex psychology of public space—a Snohetta specialty, and a field in which the firm has drawn insights from an eclectic range of sources. Dykers told me that among his architectural influences for Times Square are books and articles about livestock management by the animal scientist Temple Grandin, whose work has been informed by her autism. "There's so much emphasis on consciousness in philosophical discussions," he said. "But I think consciousness is a small part of who we are. I have a friend who had a sheepdog, and he said whenever he had a party it would herd the guests. It would tap their ankles or their knees, until, by the end of the evening, everyone at the party was in one corner. The dog was happy, but the important thing was that nobody noticed. As architects, I think, we have to try to be like the sheepdog at the party."

Snohetta's Oslo headquarters is a fifteen-minute walk from the Opera, near a cruise-ship terminal on the Oslo Fjord. The building is warehouse-like, and its entrance doesn't face the street. Its exterior is so nondescript

PHOTOGRAPH BY MICHAEL SUTHERLAND

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## Long-distance reading.

- "If the columns of a newspaper or magazine or pages of a book can be read for many minutes at a time without strain or difficulty," Walter Tracy writes, "then we can say the type has good readability."
- Erik Spiekermann writes that long pieces of text need typography that lets the reader maintain a steady rhythm, much like a long-distance runner.
- Readability requires "above all, unambiguous clarity in all typography," László Moholy Nagy states.

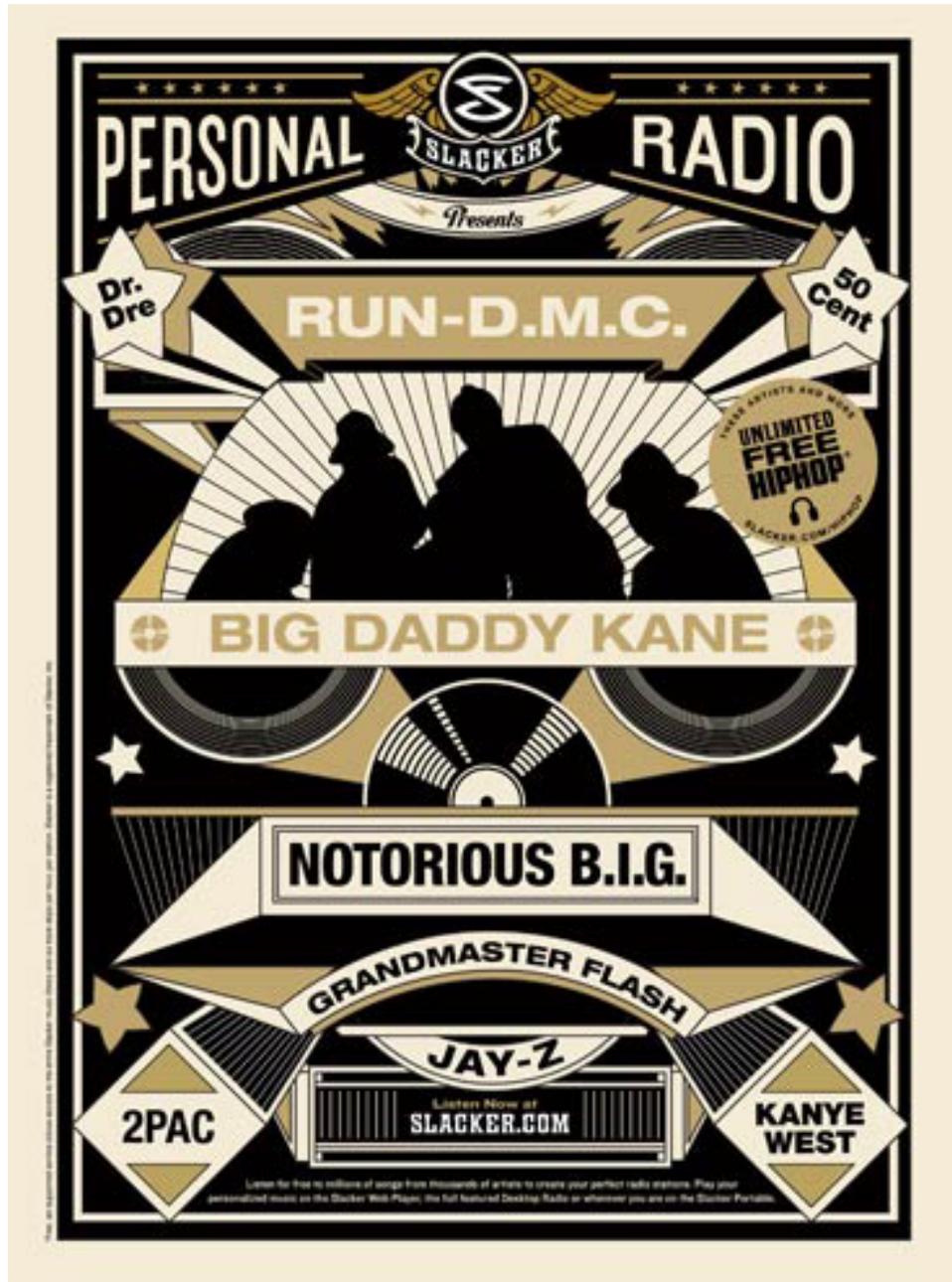
Clear, readable body type is a must for magazines, where a story might run to 5,000 words.

# ELEMENTS OF GRAPHIC DESIGN

## COLOR



- ❑ **Color** creates a mood and evokes emotion.
- ❑ Color guides the eye and emphasize information.
- ❑ Color is a tool that enhances information and usability.



# ELEMENTS OF DESIGN: COLOR



Ford 021C was designed with the aid of the fashion industry; the name refers to the Pantone number for the orange body color. It was conceived as an urban car that would appeal to women. [Read more at the Concept Car Web site.](#)

Color provides:

- ❑ Mood or personality: Warm, cold, brilliant, dull.
- ❑ Attraction: Color guides the eye.
- ❑ Identity: Use color to create a brand.

# ELEMENTS OF DESIGN: COLOR



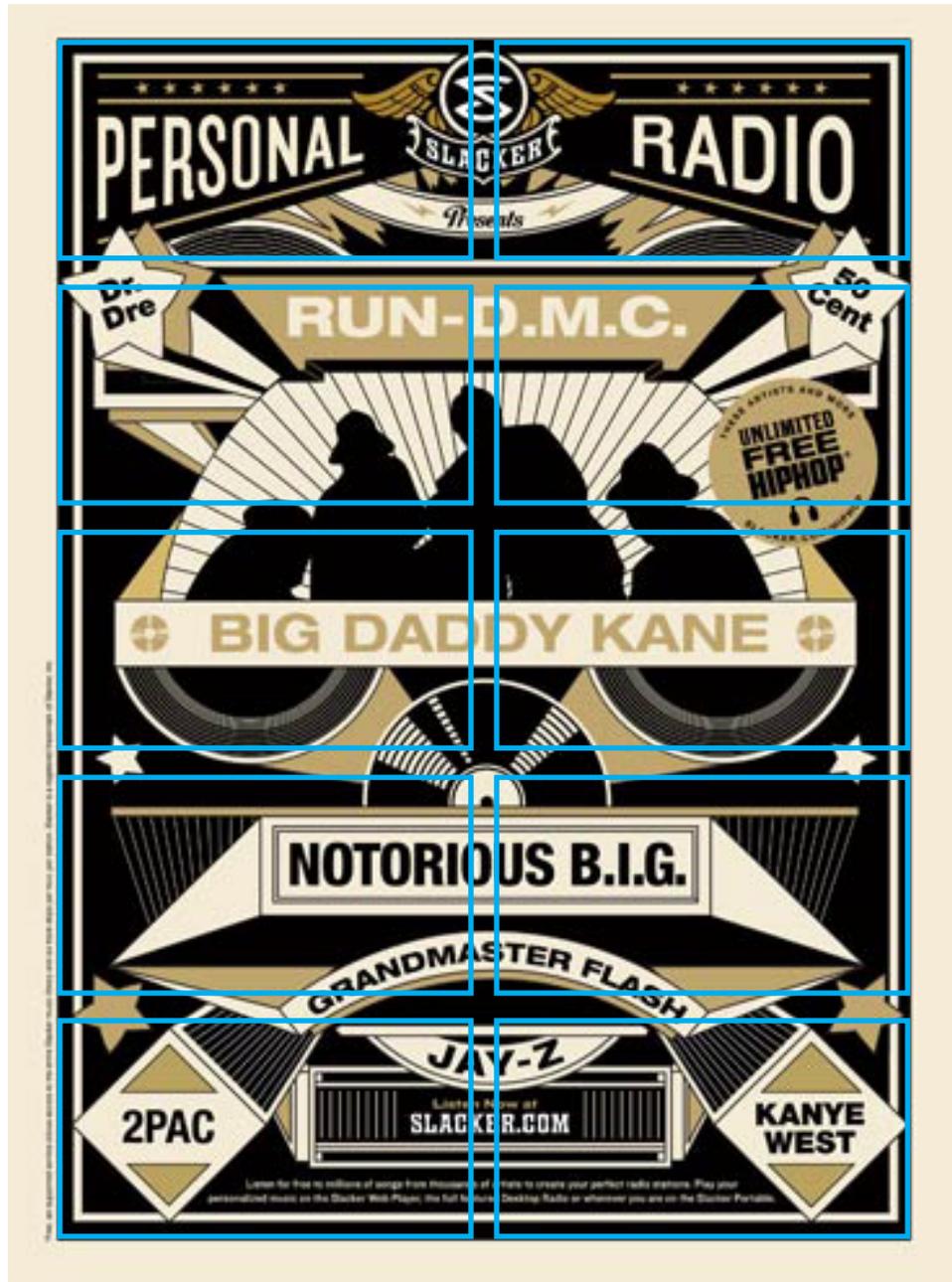
- A computer screen or a printing press can display millions of colors.
- From these, the designer carefully chooses and organizes colors that reflect the mood, tone and identity of the design project.

Millions of colors are available in the CMYK and RGB gamuts. Designers use the color wheel to limit their choices to these 96, plus

# ELEMENTS OF GRAPHIC DESIGN

## ARCHITECTURE

- ❑ **Architecture** deals with form and space.
- ❑ Type and images must be arranged in ways that are **coherent, meaningful** and **functional**.



# ELEMENTS OF DESIGN: ARCHITECTURE



The division of the page must be:

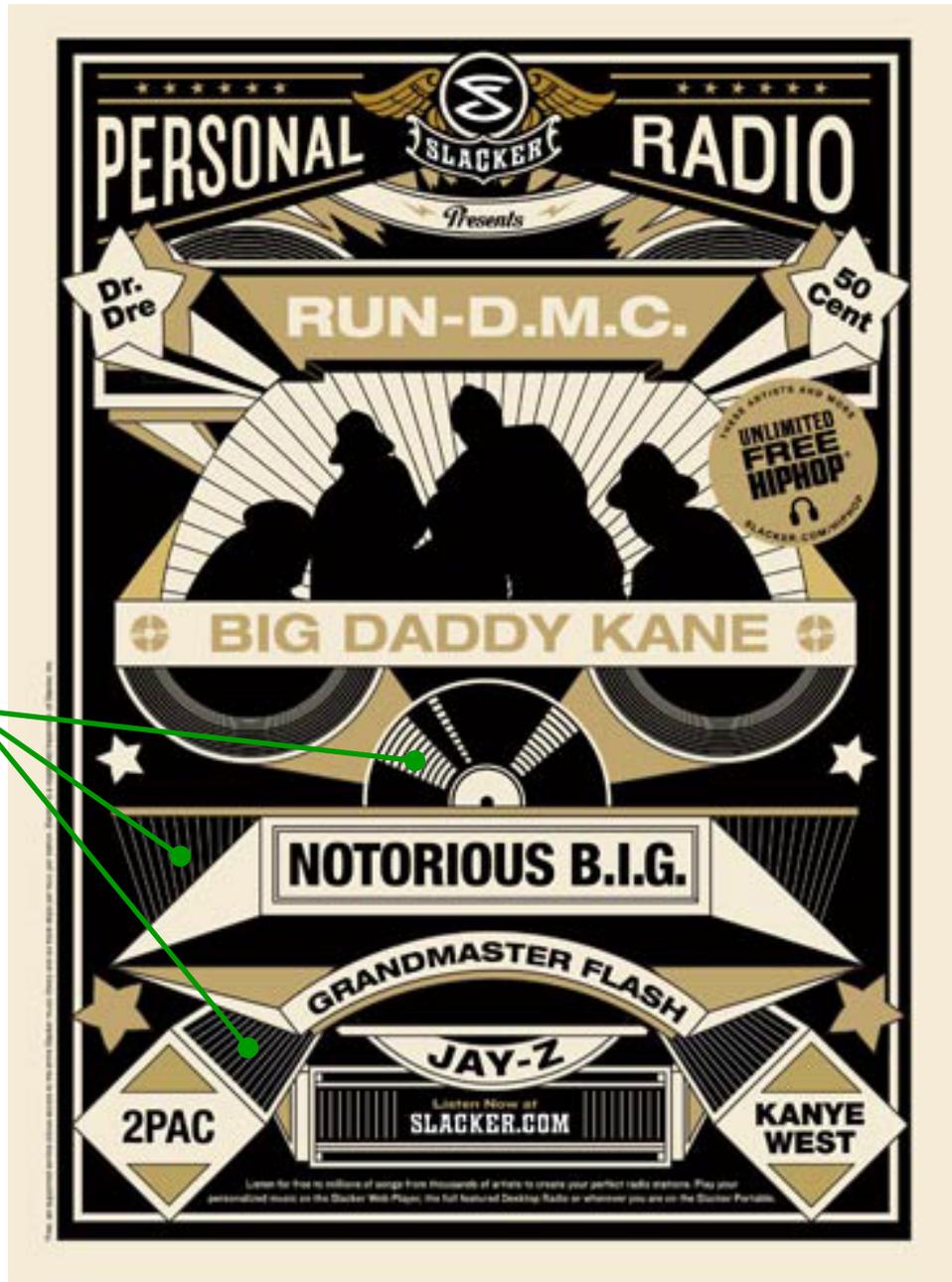
- **Coherent.** The page and the whole document must hang together and make sense.
- **Meaningful.** The pages should reveal a hierarchy or a logical progression.
- **Functional.** The design should aid readability and navigation.

For his 42-line Bible printed in 1454 or 1455 (left), Johann Gutenberg adopted the traditional page architecture that had been used by the scribes (right). Before Gutenberg's process of printing, every book used in Western civilization had to be copied by hand.

# ELEMENTS OF GRAPHIC DESIGN

**Texture** is the feel or look of a surface. Every surface has texture, tactile (3D) or visual (2D). Texture affects interest but is not a strong organizing element.

TEXTURE

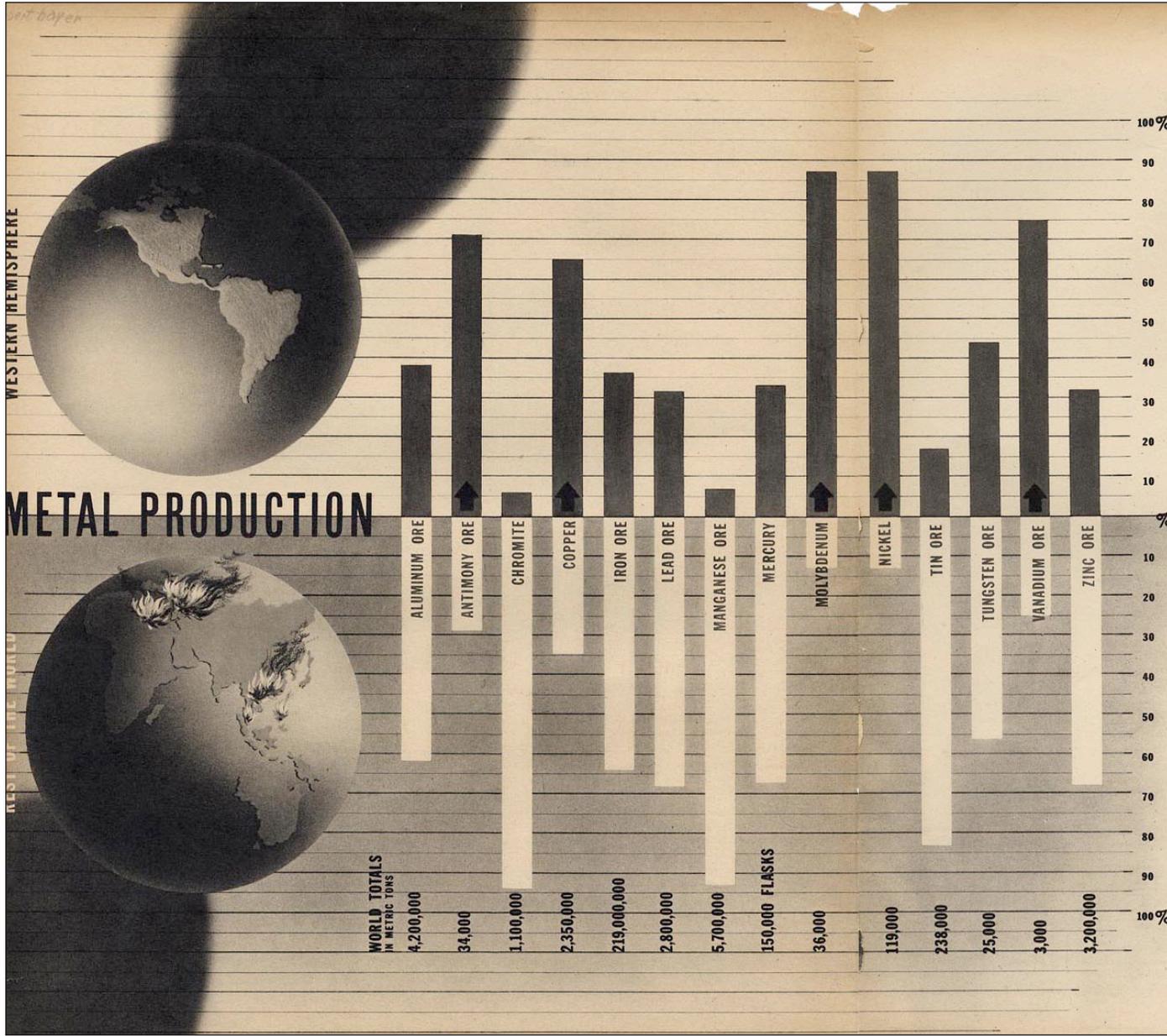


# ELEMENTS OF DESIGN: TEXTURE



Texture makes the design look real. Consider the effect of something as mundane as your paper choice.

# ELEMENTS OF DESIGN: TEXTURE



On the two-dimensional plane, texture is achieved through techniques of perspective and light.

Herbert Bayer information graphic for Fortune magazine Fortune was an oversized 11 inches by 14 inches, using creamy heavy paper and great art on a cover printed by a special process.