
ndpapers The func-
difference between
vel and a pitchfork is
metal that is *missing*.

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The Elements of Graphic Design

Space, Unity,
Page Architecture,
and Type

Alex W. White



ALLWORTH PRESS
NEW YORK

This caption is set flush left, but you can't tell to which photo it belongs.



A caption set flush left might give it and its photo beneath a commonality.



This caption is set flush left. A common edge is not yet shared.



Photo and caption align at the top. They also share a common edge.

1

A caption set flush right gives it and its photo beneath a commonality.



This photo and caption share an edge and align at the top.

2

This caption is set flush right, giving it and its photo a common edge.



This caption is set flush left. A common edge is shared by it and its photo above.

2

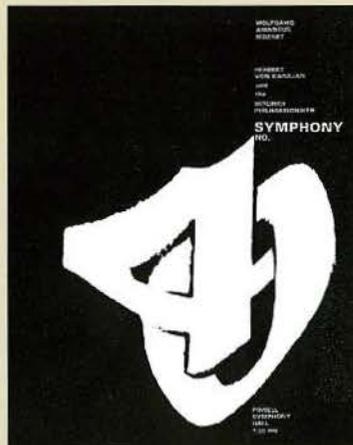
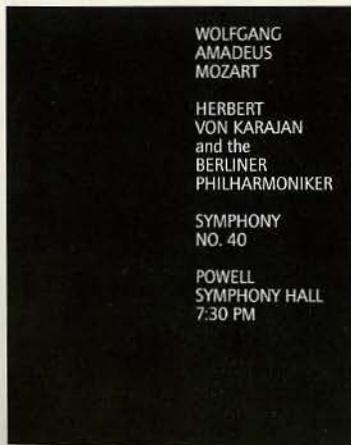
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4



There are four ways of relating elements to achieve unity (examples in the right column show more effective treatments):

- 1 Proximity:** Elements that are physically close are seen as related. At far left, the elements are seen as two groups, captions and images. On the right, each caption is correctly joined to its image.
- 2 Similarity:** Elements that share similar position, size, color, shape, or texture are seen as related and grouped.
- 3 Repetition:** Recurring position, size, color, and use of graphic elements create unity.
- 4 Theme with variations:** Alteration of a basic theme retains connectedness while providing interest. In this example the theme is small type set flush left.

inert, lifeless, and uninteresting. A balance must be found between the two.

All formal relationships – relationships between forms, not relationships in evening dress – must be created so that unity among the parts is achieved. This can be accomplished by manipulating proximity, similarity, repetition, and theme with variations:

Proximity (also called *grouping* or *relative nearness*): The simplest way to achieve unity. Elements that are physically close together are seen as related. The further apart they are separated, the less they appear to be related.

Similarity (also called *correspondence*): Elements that share similarity of size, color, shape, position, or texture are seen as alike. The reverse of similarity is intentional contrast: type or imagery that is bigger is seen as more important. Alignment is an especially significant aspect of similarity in which elements that line up with one another appear related.

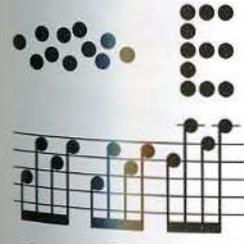
Repetition (related to *similarity*): Any idea that is repeated provides unity. The repeated idea may be positioning, size, color, or use of rules, background tints, and boxes. Repetition produces rhythm.

Theme with variations: Simple repetition without variety can become boring in its sameness. Alteration of a basic theme retains connectedness while providing interest.

Gestalt

Gestalt is a German term, coined at the Staatliches Bauhaus in Weimar in the early 1920s, that describes a design's wholeness: *A design's unity is more than the simple addition of its parts.* In other words, each part of a design is affected by what surrounds it. By manipulating the interaction of the individual parts, you affect the *cumulative perception* (page 60). Gestalt is the overall quality being described when you say, "This design works."

When we look at a building or a painting or a magazine spread, we perceive it first as a whole because the eye automatically seeks wholeness and unity. Rudolf Arnheim, psychologist and



Random dots (top left) can be arranged to convey a message, making their sum different from and more important than their individual features.



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Gestalt describes individual elements relating as a unified whole in these three ways (examples on right show more effective treatments):

- 1 Figure/ground:** Ambiguity between a subject and its surrounding space.
- 2 Completion or closure:** Unfinished forms can be seen as whole (right). They intrigue and involve the viewer more than stable, complete shapes.
- 3 Continuation:** The eye follows a path, whether it is real or implied, as shown with the separated head.



Closure is illustrated in the apparent randomness of the flying birds. On closer inspection, our eyes "connect the dots" and we see that the birds are arranged in the shape of the sponsor's trademark.

Gestalt principles are expressed in these Bauhaus designs. Far left: Ladislav Sutnar's cover for a magazine. Left: Herbert Bayer's 1926 poster for a colleague's sixtieth birthday.

art theoretician, writes in *Visual Thinking*, "We see the various components, the shapes and colors and the relations between them.... The observer receives the total image as the result of the interaction among the components. This interaction...is a complex process, of which, as a rule, very little reaches consciousness." But, he says, there is an alternative way of seeing. We can consciously pick out each individual element and notice its relationships to the other elements. Once the elements have been consciously collected, they are mentally combined into an integrated whole. The first process is intuitive. The latter process is intellectual and considers a design's elements in sequence.

For example, if you listen to recorded versions of the same movement of a piece of orchestral music, you will hear nuances and subtle differences between them, even though the same notes are being played. Their *totality*, their *wholeness* differs, and that is musical gestalt.

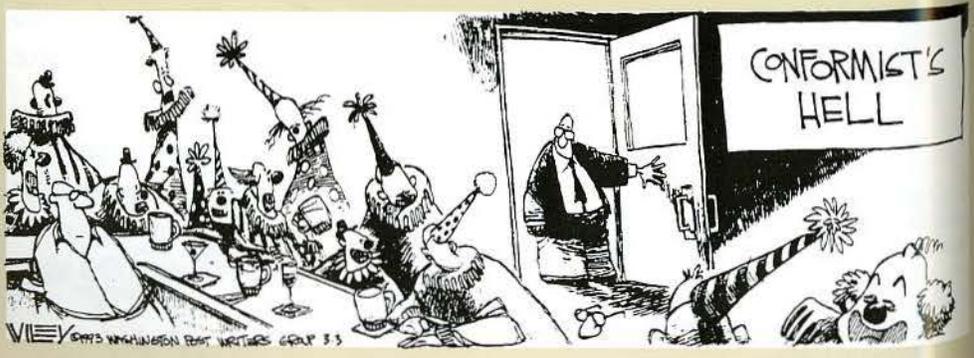
Either process results in a complete perception by the viewer. The techniques for manipulating that perception include the four unity ideas described on the previous page, as well as the following three ideas.

Figure/ground: The relationship of the subject to its surrounding space. Confusing the foreground and background is a visually stimulating technique.

Closure (also called completion): The viewer's natural tendency is to try to close gaps and complete unfinished forms. Closure encourages active participation in the creation of the message.

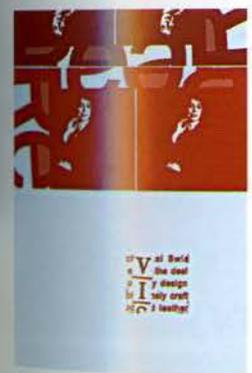
Continuation: The arrangement of forms so they are "continuous" from one element to another, leading the eye across space. Continuation also can lead from one page to another.

Gestalt, or cumulative perception, helps us see a significant message in the arrangement of the dots in the illustration on the preceding page. In a more complex way, gestalt helps us understand the message revealed in a group of images and words designed as a magazine story.



C Dominance: Manipulating sizes so one element overwhelms another affects meaning, as shown by this four-step process. Unexpected dominance can make an ordinary idea seem fresh.

C Scale: Readers perceive an element as being "small" or "big" in comparison to nearby elements and to natural human size.



Hierarchy is best expressed through proximity, grouping less important things near each other and putting one thing apart and **C similarity**, making all things alike. If all elements are too similar, even in their specialness – as shown in this Wiley Miller *Non Sequitur* cartoon – the only way to make a focal point is by making it plain.

Space

Consider white space in relation to the other design components of unity, gestalt, dominance, hierarchy, balance, and color as *primus inter pares* ("first among equals").

To avoid a stale approach to organizing elements on the page, look at the blank area you start with and think of displacing the emptiness with pictures, display and text type, and graphic embellishments like rules. Stay conscious of the remaining empty areas and use it to guide, attract, and arouse the viewer to become engaged.

Dominance

Dominance is closely related to contrast, since there must be contrast for one element to dominate another. Dominance is created by contrasting size (also called *scale*), positioning, color, style, or shape.

Lack of dominance among a group of equally-weighted elements forces competition among them. Readers must then discover their own entry point, which is a chore. Generally speaking, every design should have a single primary visual element, known as a focal point, which dominates the designscape. Readers then have an obvious starting point and are more easily guided to subsequent levels of a information.

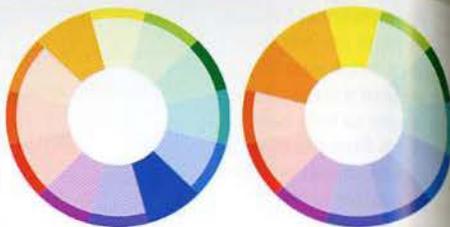
Scale, or relative size, is described by English sculptor Henry Moore: "We relate everything to our own [human] size." Scale can be used to attract attention by making the focal point life size or, for even more drama, larger-than-life size. Consciously reversing the sizes of adjacent elements is also arresting.

Hierarchy

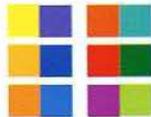
The best design moves the reader across the page in order of the type and images' significance. Content is best expressed as most important, least important, and all the remaining information made equivalently important. Having more than three levels of information is confusing because, while it may be clear what is *most* important and what is *least* important, it is rarely clear what the significant difference is between middling material.



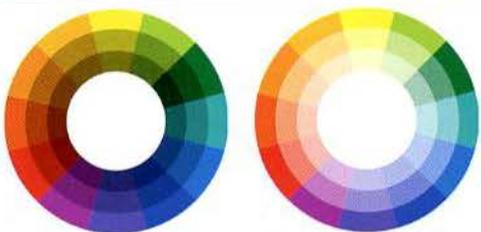
■ Hues are colors, like red, yellow, and green.



■ Complementary colors are opposite each other.



■ Analogous colors are next to each other on the color wheel.



■ Shades are made by adding black, which reduces saturation.
 ■ Tints are made by adding white, which reduces saturation.
 ■ Value is the lightness or darkness of a color.
 ■ Saturation or chroma or intensity is the brightness or dullness of a color.



■ Triadic harmonies are three colors that are equidistant.



■ Monochromatic color is a single hue with tints and shades. Achromatic colors are black, white, and grays, which can be made by mixing complementary colors.

WORDS SYMBOLS CONSCIOUSNESS COLOR

☉ Marshall McLuhan's three-level "hierarchy of communication." Color is at the bottom, functioning in the viewer's subconscious. Above it are symbols and signs, and at the top are words.

Colors have particular associations, according to Dr. Max Luescher, a Swiss psychologist. These general associations must be tempered by context and application.

BLUE	DIGNIFIED
GREEN	PERSISTENT
RED	ASSERTIVE
YELLOW	OPTIMISTIC
BROWN	PASSIVE
VIOLET	MEDITATIVE
BLACK	SURRENDER
GRAY	BARRIER

A practical guide is to use color's relative temperature to make elements come forward or recede. All colors are relatively warmer or cooler, depending on what they are next to. Red and yellow pop forward. Blue and green recede.

font use to communicate real differences. □ Plan color use from the start. If it is added on at the end, its use is most likely to be only cosmetic. □ Use color consistently. Along with typography and spacing attributes, a unique color scheme can be an identifying characteristic.

- Gives emphasis, ranking elements in order of importance. Regardless of ink color used, every element has a color – or perceptual emphasis – that must be considered. Type itself is said to have "color," or gray value, that can be used to create hierarchy. Darker type is seen first, so display type is usually bolder and bigger. □ Color highlights elements of importance. You read this first, didn't you? □ Color codes information, simplifying complex data. □ Color's highlighting benefit is quickly exhausted and devolves into a colorful mess. □ People gravitate to whatever looks different on a page.
- Provides direction, relating parts to each other. Warm colors move elements forward while cool colors move elements back, so a warm tone should be given to display type that is in front of an image to further the illusion of spatiality. □ Use graduated tints since there are no flat colors in nature.

Printed color is affected by "ink holdout," the ability of paper to keep ink on the surface and not dissipate by soaking in. Coated papers have high ink holdout and make photos look much sharper. The extra processing makes coated papers cost more. Paper with the lowest ink holdout is the paper towel, whose very purpose is to absorb.

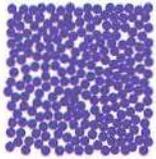
Black type on white paper has the most contrast possible. Any color applied to type will make the type weaker. Counteract this effect by increasing type weight from book to regular or from regular to semibold, and increase type size for optical equivalency.

Everyone perceives light and color a little differently and with their own set of subconscious associations. But all readers respond to usefulness of information. Analyze, define what's useful to the reader, and point out its potential value with color and the six other design components.

☉ Use less color (left) rather than more (right) or your readers will have a colorful mess to decipher. Color should be used in the same way that type size is used: to emphasize importance, not decorate the page.



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Space is what man needs

Man longs for distance and freedom. But mostly he is wedged in: on the street, on vacation, at work, in his living environment. That is why it is more important than ever today to get some personal space. Whether it is the house or the garden or a spacious condo apartment: as a mortgage bank we can help you create the space you wish for. Munich.

South German Bodencreditbank



All parts must fit together. This German bank ad uses space, abstraction, dominance, hierarchy, and color to excellent effect, that is, to illustrate the very concept of the ad.



Join elements to make a unified design. At left is a naive drawing of eyes, ears, and mouth on a head. On the right, the head in its entirety is more important than its individual elements.

6 How to use the seven design components

Think of shapes 71 | Design evolves 73

define beauty to be a harmony of all the parts... fitted together with such proportion and connection, that nothing could be added, diminished or altered, but for the worse.

- Leon Battista Alberti (1406-1472)

The seven design components - unity, gestalt, space, dominance, hierarchy, balance, and color - are sliding switches, like a lamp's dimmer, that help achieve visible, effective design (left). While you may choose to have more or less of each of these components, it isn't possible to select just one and not use the others. They come bundled as a group.

Good design necessitates that one element **dominate** the others in the context of a cumulative perception, or **gestalt**. Choosing that emphasis suggests a design's starting point. **Balance** one large or bright element against a few smaller or muted ones.

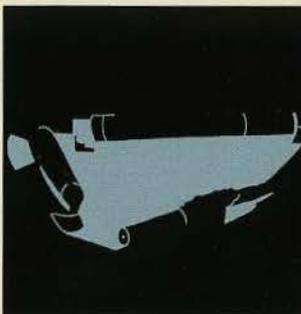
Function in design is paramount. What is the message? Choose pictures that tell the story. Use **color** to show what is important. Motivate the reader by arranging the elements in a logical **hierarchy**. The top left corner of every page or spread is a valuable starting point because readers look there first. Exploit the reader's natural habits.

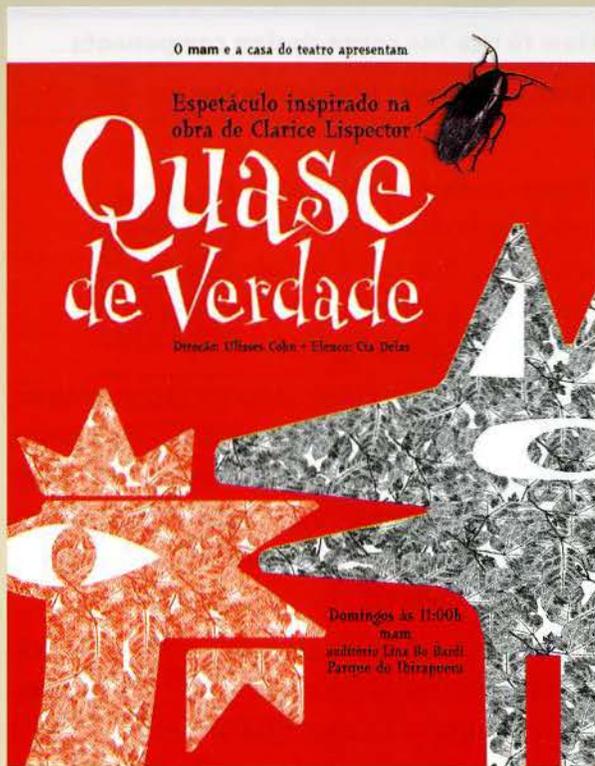
The purpose of design is emphatically not to fill up all the **space**. Don't let overabundance make the information in your design impenetrable. As Steven Ledbetter, music historian and critic, wrote, "Beethoven's control of relative tension and relative relaxation throughout the gigantic architectural span [of the first movement of his Symphony No.3] remains one of the most awe-inspiring accomplishments in the history of music."

Organize elements so all parts fit together to make a **unified** whole. Find design unity in the elements' commonalities. Organize elements by their shared subject matter, shape, or color.

Simplify by thinking of design elements as shapes. Designers learn how to see abstractly by replacing naturalistic elements with points, lines, and planes.

"...A building is not designed by putting together a series of rooms. Any (good) building has an underlying design concept that binds all the parts together into a whole. Without this it is not architecture." Edmund N. Bacon (1910-)





🕒 **Create a buffer zone** that uses surrounding white space. Interrupt a thick white border on each side to make your space look bigger than it actually is. This technique is used by artist Summer Jellison in her "Glass Owl."

🕒 **Top row:** Students learn to see letters as shape. Each of these studies uses a single letter.
Bottom row: A letterform and textures are combined on a grid. Attention to white space is emphasized.

"At the definition stage of a project, we are less concerned with what it will look like and more concerned with what it will be." John Ormsbee Simonds, *Landscape Architecture*

Designers have different sensibilities and preferences, which is why five designers given the same pictures and copy would create five different designs. But given a single message to get across, we expect they would develop comparable solutions.

Think of shapes

Readers operate subconsciously on these design truisms:

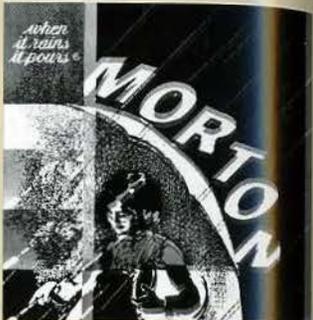
- We read from left to right.
- We start at the top and work down the page.
- Pages in a publication are related to each other.
- Closeness connects while distance separates.
- Big and dark is important; small and light is less important.
- Fullness should be balanced with emptiness.
- Everything has a shape, including emptiness.

Design is, among other things, the arrangement of shapes. Experiment by mentally setting aside the meaning of headlines, copy, visuals, and other elements and treat them as if they were purely shapes (facing page, top). Henry Moore, the English sculptor, said, "The sensitive observer of [design] must feel shape simply as shape, not as a description or idea. He must, for example, perceive an egg as a simple solid shape, quite apart from its significance as food, or from the idea that it will become a bird."

Shapes exist in the realm of figure and ground only. Try overlapping and clustering shapes to create visually interesting concentrations. To simplify a design, reduce the total number of shapes by joining two or three at a time.

Letterforms are shapes that can be exploited in display typography and logo design. It is necessary to see the form of letters before complex typographic ideas can be developed (facing page, bottom). Without exploiting letters' individual forms and the shape of the space around and within letterforms, the only option is mere typesetting in groups of letters and words.

White space, within type and around columns and pictures, must be considered as a shape. Push it in chunks to the perimeter or to the bottom of the page.



C Design solutions must evolve. Solutions grow from familiarity with the materials at hand. As familiarity grows, the process becomes more interesting, design relationships become clearer, and abstraction can be manipulated.

Design evolves

Uncovering and recognizing design relationships takes time. Just as when we walk into a dark room, it takes time to accustom our eyes to the materials at hand.

Design must evolve from basic relationships to more complex, more refined relationships. Start the process by becoming intimately familiar with the content. Read every word of the text. Understand *what* is being said. Understand, too, *why* it was written and why it is being published. Then find out *who* is going to read it and what the reader's motivation is. Finally, develop a strategy for expressing it to the reader's greatest advantage.

Design evolution should proceed on two levels simultaneously. One is to seek relationships of *meaning*, which appeals to the reader's need for understanding. The other is to seek relationships of *form*, which appeals to the reader's need for attraction. Balancing these two ensures effective visual communication.

Design is spoiled more often by the designer's having been overly cautious rather than having been overly bold. Dare to be bold.

"Design is about making order out of chaos." Cipe Pineles (1908-1991)

C Design evolution takes time. These five pages show the development of a redesign for the *Upper Room* magazine.

- 1 Original layout evolved over decades into a flavorless, random presentation.
- 2 Convert all paragraphs to flush left.
- 3 Add bold, sans serif contrast.
- 4 Add column width and type placement contrast; add map.
- 5 Change font assignments; adjust some line-spacing and type sizes; add rules.

When Forgiving Is Hard
 Monday, November 25, 2004
 Read Psalm 19:7-14
 Forgive us our debts, as we forgive our debtors.
 — Matthew 6:12 (KJV)

Each time we say the Lord's prayer, we repeat that request to forgive; but how often are we called upon to really act on that simple plea?

My mother was recently attacked in her home in the middle of the night. Though she was not seriously injured, she was roughed up and robbed. When I heard about what had happened, my immediate reaction was one of rage as I thought of her fear and humiliation. Several days later, however, the thought came to me that as Christians we are charged to forgive those who act against us.

Sometimes praying for our enemies is hard, almost impossible; but the Lord did so and wants us to do the same. Each day, I concentrate on offering up these unknown assailants, praying also that the feelings in my heart will match the words on my lips.

PRAYER: Forgiving God, please grant that the meditations of our heart and the words on our lips will be acceptable in Your sight. In Christ's name. Amen.

THOUGHT FOR THE DAY
 If we do not feel forgiving, we can pray that our feelings will change.

Tuck Eudy (Georgia)

PRAYER FOCUS: Those who have wronged us

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5