

## GESTALT THEORY

Gestalt perceptual factors build a visual frame of reference which can provide the designer with a reliable psychological basis for the spatial organization of graphic information.

Around 1900, German and Austrian psychologists began to formulate concepts based on pattern seeking in human behavior. They developed theory particularly valuable to designers and photographers. We are drawn to Gestalt psychology because it gives us concrete evidence of how the eye organizes visual experiences.

The gestalt theory can be broken down into 2 parts:

- 1 The parts of a visual image may be considered, analyzed and evaluated as distinct components.
- 2 The whole of a visual image is different from and greater than the sum of its parts.

### Examples

- When you look at a photograph of a landscape, you might consider the hills, sky, sunset, lake and trees as elements to be separately admires. Yet taken together they form a coherent whole of unified beauty, each part adding to the other.
- A poster may be analyzed as a recipe of illustration, headline type and text type. When these communication elements are placed together they reinforce one another building a pattern that glues the whole.
- Think of this musical analogy: musical notes define a pattern or melody. Each note may be heard separately and considered. If the notes are arranged in a pleasing melody, think of the melody as the gestalt which is greater than just the sum of the notes.
- A thorough knowledge of visual gestalt principles gives the graphic designer an invaluable tool box. We know that audiences will react to overt or obvious gestalt patterns. By matching a target audience with selected high impact gestalt images we can shorten the distance to effective communications. We can, as designers, virtually guarantee an audience response, which is the bottom line of design efficiency. Gestalt imagery can be photographic, symbolic, typographic, illustrative or a combination of these. Overt gestalt are particularly useful for graphic pieces which rely on quick exposure – posters, magazine and book covers, and television graphics. To work with gestalt principles in visual imagery is to deal with basic human response, a natural visual activity of the human organism.
- Gestalt visual principles have long been used to analyze images. Most fine arts have been considered from other viewpoints with rather mystical "aesthetic" judgements. Gestalt principles give us the opportunity to evaluate the end effectiveness of visual imagery. Designers should thoroughly learn gestalt perceptual psychology and experiment with its exciting forms.

### 1 figure / ground

The fundamental law of perception which allows us to read imagery. Made possible by contrast.



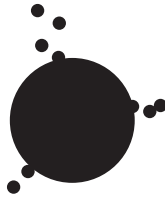
#### figure[is]

positive elements defined by spatial relationships which exist among all their parts. They occur on a field or ground.

#### ground

background, field, white space, negative space, format which carries visual image.

- We are able to read a speedometer, watch or sign.
- Polar bears have a white camouflage.



## 2 equilibrium

Every psychological field tends toward order, balance, and maximum efficiency. Natural phenomena act on materials, organisms. Resulting shapes of gravity, heat, and pressure are usually "closed," compact.

- Water on a waxed surface clusters
- Bubbles in a soda are rounded
- A stretched membrane contracts into a circle
- Molten metal forms into a ball shape
- flowers open and close from a central core



## 3 isomorphic correspondence

Deals with the relationship between structural characteristics of visual form and similar characteristics of human behavior. Experiences of people, both physical and psychological, are recalled and triggered by specific visual images.

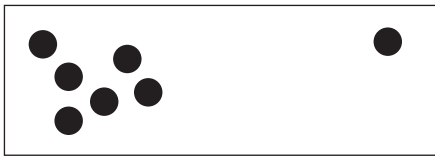
- An illustration of a bloody knife recalls a cut.
- A photograph of a rattlesnake triggers great fear.
- A television ad for a hamburger stimulates hunger.
- An anti-war poster incites a group to riot.
- An incomplete ad invites viewers to image a dream home on their property.



## 4 closure

Closed shapes are more visually stable than unclosed shapes. We have a natural tendency to close gaps and complete an unfinished form.

- We imagine how a pliers, wrench or tweezers closes.
- We visually close a gate in an open corral.



## 5 proximity

Perceptual groupings are favored according to the nearness of parts. Closer parts form groups by visually uniting.

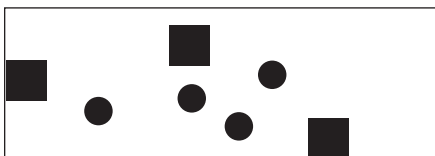
- Yellow cabs cluster near a hotel entrance.
- In a garden, clusters of flowers draw the eye more readily than a single flower.  
In this arrangement, the eye goes first to the group.



## 6 continuation

Organization in perception leads the eye to continue along and beyond a straight line or curve.

- A directional arrow points the eye in the intended direction.
- We are able to read the circular typesetting on an official seal.



## 7 similarity

Identical visual units will be seen together in groups. Similar objects are defined by shape, size, color and direction.

- In a herd of cattle, we perceive Texas longhorns and black angus as separate groups.
- A car moving against traffic on a one way street becomes immediately apparent.

## TYPOGRAPHIC CONSIDERATIONS

### Selection

How does the designer select which style of type to use? What factors are involved in designing with text type? Selecting the type for a given layout means making decisions in six inter-related areas: type size, line length, type style, leading, spacing, and format.

Whether you are setting type yourself on a desktop computer or sending out for professional typesetting, you will need to design and specify these six characteristics. It is important to develop a fine critical eye for type quality, especially in the area of desktop computers. Often times the type generated on small personal computers has uneven letterspacing and requires kerning. Look critically, at your type and keep your standards high.

### Size

Text type is any type that is under 14 points in size. A point is a unit of measure based on the pica. There are 12 points in a pica and approximately 6 picas in an inch, so there are 72 points in an inch. When measuring type by hand, include the ascender and descender in the measurement. When choosing a type size, keep the audience in mind. Type that is smaller than 10 points is often difficult for older people to read.

### Line Length

Line length also is measured by the pica system. It is the length in picas of a line of text type. When laying out a page and marking copy for the typesetter, use pica measurements. The dimensions of the page itself, however, are usually expressed in inches. For example, an 8 point type must be set in a 22-pica line length on an 8.5" x 11" page format. The length of a line is closely related to the size of type. A small point size such as 6 point or 8 point on a line 44 picas long is difficult to read. The type seems to jump around along the midsection of the line, and the eye must search for the beginning of each new line. This trouble is worse when there is insufficient space between lines. Usually you want the reader's eye to move smoothly, never being forced to slow down or lose its place. The standard line length and point size ratio for optimal legibility is a line of 50 to 70 characters long. To remember this ratio, keep in mind that a line length should be approximately double the point size. An 8 point type sits well on a 16 pica line length. Variations on this theme can be used purposely to slow the reader down. Remember these are only guidelines.

### Style

When you choose text type, legibility is a prime consideration. Although there are many beautiful, elegant, and accessible styles, stay away from styles with an excess of ornamentation when selecting text type.

Next, seek a type that is appropriate to the audience, the publication, and your own sense of aesthetics. Sans serif has a modern feel and is highly legible in the limited amounts of copy in most annual reports, newsletters, and so on. The serif types are generally more traditional and classical in feeling. They are easier to read in large amounts. Many of the newest styles strive to combine the virtues of serif and sans serif type.

Trends arise in type, just as in music, clothes, and lifestyles. Use the ones you consider appropriate and aesthetic. Beginning designers often combine several type styles in a typographic layout. They choose each for its own beauty and interest, but forget the effect of the whole design. Diverse styles usually refuse to combine into an organized whole and have an undisciplined and chaotic look. Many experienced designers prefer to work within one type family, drawing upon its bold, italic and roman faces. They achieve a look of variety without risking going outside one family. This of course is certainly the safest for a new designer.

The most exciting layouts, however, often do mix distinctively different typefaces. Mixing takes sensitivity to how the styles affect one another and contribute to the whole. A good rule of thumb when mixing type families is to make certain they are very different. The composition will work if there is either deliberate similarity or definite variety. It can confuse and displease the eye if distinctions are muddy.

### Leading (linespacing)

Leading describes the vertical spacing between lines of type. The historical origin of the term goes back to hot-metal typesetting, when a thin strip of lead was inserted as a spacer between lines of metal type. This type and leading were locked together into a galley, inked, and printed. Leading strongly affects the look and readability of the layout. Type is considered to be set solid when there is no space inserted between the descender of the top line and the ascender of the bottom line. A 10 point type set on a 10 point leading is an example of solid leading. How much leading you use is important. Several factors affect that decision. Among those factors are type size, line length, and type style.

### Type Size

Leading must be proportionate to the size of the type. Although there is no standard, correct leading for any certain type size, one often finds 10 point type set on 12 point leading. An extra 2 points of space have been inserted between lines of type. A larger or smaller type size will require less extra leading. A 14 point type might need only 14 or 15 point leading, for instance. It is rare to find minus leading, or a 10 point type set on a 9 point leading. Remember, there are always exceptions. If you wanted to present a layered visual texture tight or negative leading would be appropriate.

### Line Length

Line length is an important factor in determining leading. The longer the line, the more leading is appropriate. With longer line lengths, the eye has a tendency to wander. If there is insufficient space between lines, you will find yourself reading the line above or beneath and having difficulty finding the beginning of each line.

### Type Style

Three aspects of the type style also affect leading: x-height, vertical stress, and serif versus sans serif. The x-height, as you know, refers to the size of the body of the letter, without its ascender and descender. The x-height of Helvetica is much greater than the x-height of an older type such as Garamond. Consequently the Helvetica would probably require more leading. It does not have lots of extra white space packed around its body, so the lines of type appear closer together.

The vertical stress of a type style affects leading because the stronger the vertical emphasis, the more the eye is drawn up and down instead of along the line of type. Hence, the greater the vertical stress, the more leading required. A type style such as Baskerville has a strong vertical stress and requires more leading than Garamond.

A serif helps to draw the eye along in a horizontal direction, so serif type is generally considered to be easier to read than sans serif type. Sans serif type usually requires more leading than the serif style to keep the eye moving smoothly along.

## Spacing

Letterspacing is the amount of space between letters of a word. A good figure-ground relationship between letterforms is as important with text type as with display type. If the letters are spaced too far apart, the eye must jump between letters, and reading becomes strained.

Whether designing with text type or display type, keep an eye out for the creation of equal volumes of white space between individual letterforms. Kerning is a term that describes the specific adjustment of space between individual letterforms. The amount of space between words is called word spacing. If it is too great, it is difficult for the eye to move quickly along the line of type. There is a tendency to pause between individual words. The reader should be unaware of the space between words, and aware instead of their content.

Word spacing usually is not a problem with text type, unless the type is being set in a justified format. To make the lines come out even, the computer will insert extra space between words, this addition is not noticeable. However, if the line length is short, great white holes seem to appear in the copy. Often rivers of white space will appear in the columns of text type as a result of poor word spacing.

## Format

Format design refers to the arrangement of lines of type on a page. There are two basic categories: justified and unjustified. In justified type the lines are all the same length, so that the left and right edges of the column of type are straight. This format is commonly used in newspaper layout and text and trade books. It is appropriate when speed and ease of reading are primary considerations. Justified copy is considered slightly easier to read than unjustified copy. The straight, squared off columns of type give an orderly, classical feeling to the page.

Unjustified copy can be arranged in a variety of ways, flush left, flush right, and centered.

### Flush Left

The flush left format calls for a straight left edge and a ragged right edge. One of the benefits of this format is that it is possible to avoid hyphenated words.

### Flush Right

Flush right has a ragged left edge and a straight right side. It is an unusual format and must be used with care. It is difficult for the eye to search out the beginning of each new line without a common starting point.

### Centered

It is a slow reading, classical format that encourages the reader to pause after each line. It is important to make logical breaks at the end of each line. This format has a pronounced irregular shape and packs a lot of space around itself. The white space and irregular outline can draw the eye strongly. Consider the content of your material, how rapidly it should be read, and the overall look of the page before deciding on a centered format.

## Style and Format

Typography sets a visual tone depending on the variables we have just examined. The style, the leading, and the format all contribute to a nonverbal communication (visual communication, or visual language) that has a great deal to say.