The Elements of Graphic Design, Second Edition

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14 PUBLICATIONS **52** CITATIONS

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Project The Elements of Logo Design View project

Space is emptiness. It is an essential aspect of design. It is the background to everything we see

Unity is a state in design in which all elements are working together to make a single impression

Page Architecture is the substructure, often unseen, that distinguishes one design from another

& Type is frozen sound that shows voices, tones, and pacing as vividly as a cast delivers lines

Second Edition

The Elemen of Graphic Design

Alex W. White

This book is concerned with *what things look like*, but supposes that *what is being said* is worth the effort of clarity.

Contents

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OLYMPUS

Illegibility results when an image is put behind text. This neither enhances the value of the image (it is being covered up!), nor makes the text easy to read (with a changing background).

Lack of color contrast adds to illegibility, with yellow on white the weakest contrast of all. This German ad for a ten-liter barrel of beer nevertheless uses yellow lettering on white appropriately.

Overlapping display type over type *and* over an image makes each individual element harder to read but increases overall impact as a unified visual.

Flirting with illegibility is a powerful way to get attention, but knowing when the elaborate presentation overwhelms the content is essential.

Use the paper's whiteness to attract readers. Does this much "emptiness" justify its cost to the client? Yes, if the emptiness communicates the message, which it does in these two examples (facing page).

The space *where a camera would be held* is more arresting than a mundane shot of a camera being held. The camera (albeit not in proportional size) is then placed horizontally across the spread from the space, creating a visual link between the two images.

than for the sake of the message. Readers are far less likely to notice or object to too much white space than to an unreadable, crowded page.

Readability is a term that refers to the adequacy of an object to attract readers. It should not be confused with *legibility*, which describes the adequacy of an object to be deciphered. Good readability makes the page comfortable to read. Poor readability makes pages look dull or busy. Richard Lewis, an annual reports expert, says, "Make exciting design. Dullness and mediocrity are curses of the annual report. For every overdesigned, unreadable report there are a hundred undistinguished ones that just plod along." Regarding legibility, Lewis says, "Designers who play with type until they have rendered it unreadable are engaged in a destructive act that hurts us all. Hard-to-read [design] is useless." Make unnecessary demands on your readers with great care and only when you are sure the extra effort they are being asked to make will quickly become evident to them.

Considered use of white space shows off the subject. Go through the pages of any newspaper and you will find wall-to-wall ads of even grayness, occasionally punctuated by darker areas of bold type. Few ads utilize the whiteness of the paper to attract attention. Using the whiteness of the paper is an especially good approach if the paper's whiteness expresses *the idea of the ad*.

"What you see depends to a great extent on what you expect to see, what you are used to seeing." Sir Jonathan Miller (1934–), public intellectual

A bloodied windshield describes a "delightfully violent driving game," but it is actually a brilliantly utilized area of

blank paper. This "non-existent" raw material is available to be exploited in every design, whether paper or screen based.

Expressive use of space describes the roominess inside a vehicle, exaggerating it by likening it to a house.

Giovanni Battista Piranesi (1720-1778) was an Italian artist and printmaker. Trained as an architect, his works depicted views of Rome and grand buildings and, famously, "Carceri d'invenzione," a series of imaginary prisons. In the series of sixteen works, Piranesi distorted space, treating foreground and background whimsically in studies of gigantic vaulted spaces that lead to and from nowhere.

is part of a valid and logical solution to design problems. Unlike images and words, which come with their own obvious reasons for being included in a design, emptiness is more subtle. It is within the designer's responsibility to look for and take advantage of emptiness on each design assignment and be able to explain and justify it.

Expressive use of white space requires an asymmetrical design. Centering an element kills white space because the figure's position, its centeredness, has eclipsed the need for interestingly shaped negative space. Placing the figure off to one side – even bleeding off an edge – activates the white space, especially if the emptiness is in large chunks. A truism in design is that if you arrange the white space well, the elements on the page will look great, but if you arrange only the positive elements on the page, the white space will almost inevitably be ineffective.

Seeing the potential of emptiness requires a shift in thinking that is equivalent to doctors preserving health instead of just curing diseases. The medical community has come to the realization that nurturing patients' wellness in addition to treating their illnesses is good practice. This is a historical shift in medical thinking.

Peter Stark wrote an excellent description of an equivalent way of seeing in an extreme-skiier profile in *Outside* magazine: "Standing on Mount Hood, I looked


"The closer you look at something, the more complex it seems to be." Vint Cerf, (1943-), co-creator of the Internet
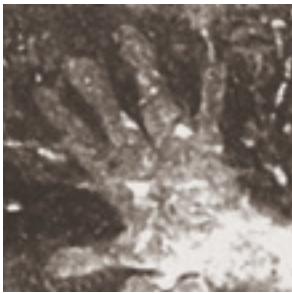
c15,000 BC Identifying marks have been around since the beginning of human writing. Here, paint was spit-sprayed around the artist's own hand.

A
B
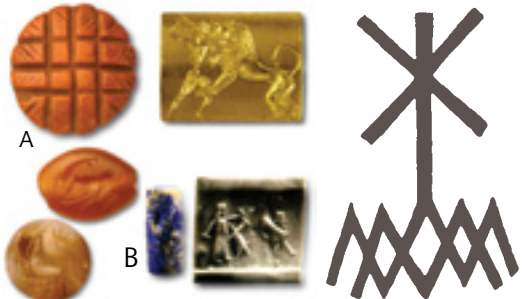
6,000 BC The first identifiers were Sumerian stamps (A). Three thousand years later, cylinder seals, rolled across soft clay, showed stories as signatures (B).
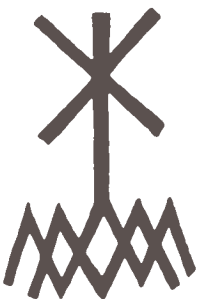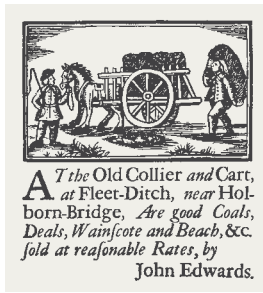
c1200 Merchants' marks are widely used to mark packages. Being diagramatic, they communicate across dialects and languages, even to illiterates.

1282 The earliest watermark, a symbol embedded directly into paper fibers to indicate the paper's maker, is Italian.

AL DVS

1502 Aldus Manutius adopts the anchor-and-dolphin device, symbolizing the proverb *Festina lente*, or "Make haste slowly."

A T the Old Collier and Cart, at Fleet-Ditch, near Holborn-Bridge, Are good Coals, Deals, Wainscote and Beach, &c. sold at reasonable Rates, by John Edwards.

1670 With the advent of printing, "tradesman's cards" are simple, literal depictions of businesses.

P. Viser
1589
1769

1750 Pottery and porcelain marks are pressed into the bottoms of pieces to indicate provenance and artisan. These are samples from Delft, Holland.

BASS & Cᵒ EXTRA STOUT

1864 Stylization is introduced to denote quality in England in the second half of the 1800s.

Representational signs
Realistic images of objects

Pictograms
Descriptive images of objects

Families

Symbolic signs
Pictograms with new meanings

Ideograms
Nonrepresentational ideas

Diagrammatic signs
Nonrepresentational, arbitrary

Synonimic signs
Images with the same referent

Semiotics, the study of signs and meanings, defines nine categories of marks, of which these six are the most important.

Timeline 3: Logos

A logo is a mark that identifies an individual or business. Logos have a rich and fascinating history. "Logos" is Greek for "word," and it is a term that is widely and incorrectly used to indicate all corporate trademarks. Marks may be symbols (marks without type), lettermarks (letters form the name), logos (a pronounceable word), or combination marks (symbol and logo together). ❙ What is *right* with your logo's design? Is it smart, beautiful, witty, elegant*, original, well designed, and appropriate? Does it use negative space well? Is it, in a word, good**? A good logo must be good on its own design merits – it

Symbols

Lettermarks

Glico implse

Logos

Sutnar & Co   Picator   CITY ONE

Combination marks

Esquire

International Typeface
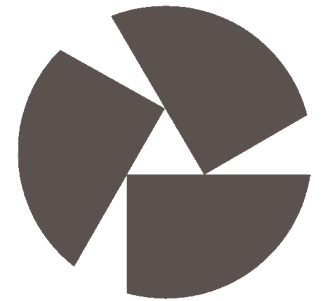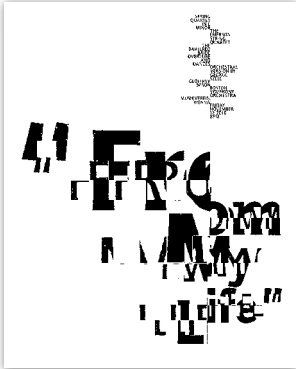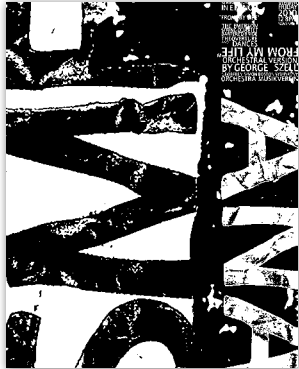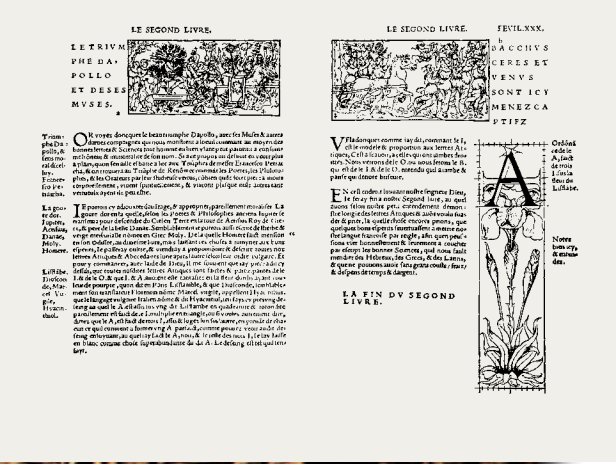
The New York Times

Photo Lettering Incorporated

These handlettered logos, all done by Ed Benguiat, are examples of positive and negative shapes in perfect balance.

has inherent aesthetic[†] quality – and it must be good for the client by satisfying their brand positioning, by meeting clearly stated business objectives, and by the designer's ability to explain why a design solution is right thinking. ❙ Though logos are part of a greater branding effort, every logo should be a perfect jewel of character-filled relationships that reveals the designer's mastery of the fundamental figure/ground relationship. E N D

* *Elegance* is not the abundance of simplicity. *Elegance* is the absence of complexity. ** *Good* is a solution to a real or clearly stated problem. *Good* lasts for ten years. [†] *Aesthetics* = artistry + inventiveness brought to a problem.

Maxwell House

A logo is often accompanied by a tagline. "Good to the last drop®" may have been coined in 1907 by President Theodore Roosevelt at Maxwell House Hotel in Nashville ... or it was written by Clifford Spiller, then president of General Foods.

1933 Lucian Bernhard, a German designer now best known for his typefaces, creates a body of lettermarks for companies in Europe and the U.S.
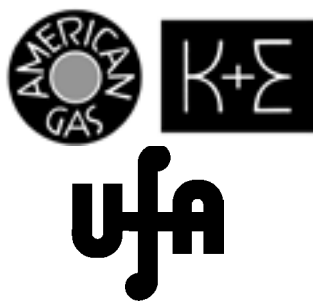
1971 Carolyn Davidson, a student at Portland State University, is paid $35 to design a logo for a new sneaker company.

1972 A logo is a mark that is a pronounceable word, like *Exxon*. Shown here is Raymond Loewy's first sketch, done in 1966.

1978 Abstraction is used in symbols when the companies they describe are not easily illustrated. This is for a Brazilian banking group.

1989 Stefan Geissbuhler designs the Time Warner mark. The final is a hand rendering because the computer-drawn studies were too sterile.

1993 A modern mark notable for its elegant N, W, and descriptive arrow created by negative space.

2006 Logos need regular updating to be contemporaneous. The earliest mark here (top left) is from 1901.

AMERICAN GAS   K+E   ufa

"SWOOSH" Design 1971

EXXON
EXXON

QUAKER

UNITY

If there is just one thing you attempt to do as a designer, it must be to create unity among the pieces and parts with which you are working. Make the type relate to the image, make the image relate to the type. Take the attributes – or even just one attribute – from one element and apply it to the others. The point is to make a singular message, a message that looks predigested and processed in a way that encourages sampling and, perhaps, involvement from the reader. Fooling around with things and leaving them in *dis*unity is hardly a necessary addition to the communicative process.

Technological limitations have *forced* unity on design. Sumerian cuneiform scribes had only wedge-shaped sticks and soft clay (left, background) and fifteenth-century printers had only a few handmade fonts (left, foreground). This example is from Geofroy Tory's *Champ Fleury: The Art and Science of the Proportion of the Attic or Ancient Roman Letters, According to the Human Body and Face.* Tory (c.1480-1533) completed the ninety-six page comparison of perfect proportion between the human body and letterforms in 1529. *Champ fleury* means "flowery fields," or "paradise."

Intentional use of similarity and contrast are shown (left, bottom) in these four student studies of typographic systems and space.

4 Unity and space

*U*nity contributes orderliness and coherency and a civilized state of things generally. Whereas the Contrast family are all savages, more or less. – William A. Dwiggins* (1880–1956)

One goal of graphic design is to achieve visual unity or harmony. Eugene Larkin, in the introduction to his book *Design: The Search for Unity*, writes, "The minimal requirement in visual design is …the organization of all the parts into a unified whole. All the parts, no matter how disparate, must be reconciled so they support each other." In other words, elements must be made to work together with the greatest interest to the reader and with the least resistance from the reader.

Because they had very limited resources, the earliest design practitioners achieved visual continuity rather easily: it was externally imposed on them by lack of choice of materials (left, top). Today, with the abundant resources available as digital information, giving designers the capability to replicate with near exactitude the work of any era, we must exercise internal restraint to achieve harmonious, unified design.

Similarity and contrast 73
Balance similarity (which can produce boring sameness) with contrast (which can produce unrelated noisy busyness).

**Using space
to create unity** 77
Consistent, defined spaces join and add a sense of organization.

Caledonia
Electra
Metro

*Dwiggins coined the term *graphic designer*, designed hundreds of books and eighteen typefaces, and wrote the first book on advertising design.

Rayonnant architecture ("radiant," in reference to the circular stained glass windows that radiate from a central point), in which illuminated, weightless

interior space became more valued than the walls of the building itself, was developed in France in 1231. This is La Sainte-Chapelle in Paris.

Architectural voids are handsomely lampooned in this ad for Absolut vodka. The real

Brooklyn bridge is on the right, showing the actual arches in its towers.

Castles (facing page, top) illustrate layout complexity (facing page, bottom):

SIMPLE		
Primitive castle	=	Elementary page architecture

STANDARD		
Regular castle	=	Intermediate page architecture

COMPLEX		
Elaborate castle	=	Intricate page architecture

Layout complexity is determined by the number of design relationships it contains. *Too many* relationships – a design which is said to be "busy" – can equal *no* relationships.

Architecture and design

A completely new way of realizing large-scale architecture occurred in the mid-thirteenth century. Construction of the church of St.-Denis, near Paris, had stopped about eighty years earlier when the abbot who began the building died. When the church's new design was proposed in 1231, it was the first instance of Rayonnant ("radiant") architecture, in which radiating patterns of cut-glass windows, of which there were many, flooded the building with light. It was a decision to have *empty space within the cathedral* be more important than the stone walls that surrounded the space.

There has always been a similiarity between architecture and design in thinking style and problem–solving approach. Hassan Massoudy said in his book *Calligraphy*, "An architectural design defines a living space; the space between the walls is as real and as significant as the walls themselves. In [graphic design] the value of a space derives from its relationship with the [elements] that surround it and vice versa." Sean Morrison, in *A Guide to Type Design*, says, "Type designers are closer to architects than to artists. The architect must produce a building that is structurally sound and efficient but that is also visually pleasing and comfortable to live and work in." Surely, a designer's work must conform to these same requirements to be useful.


"Architecture is the beautiful and serious game of space." Willem Dudok (1884–1974), architect
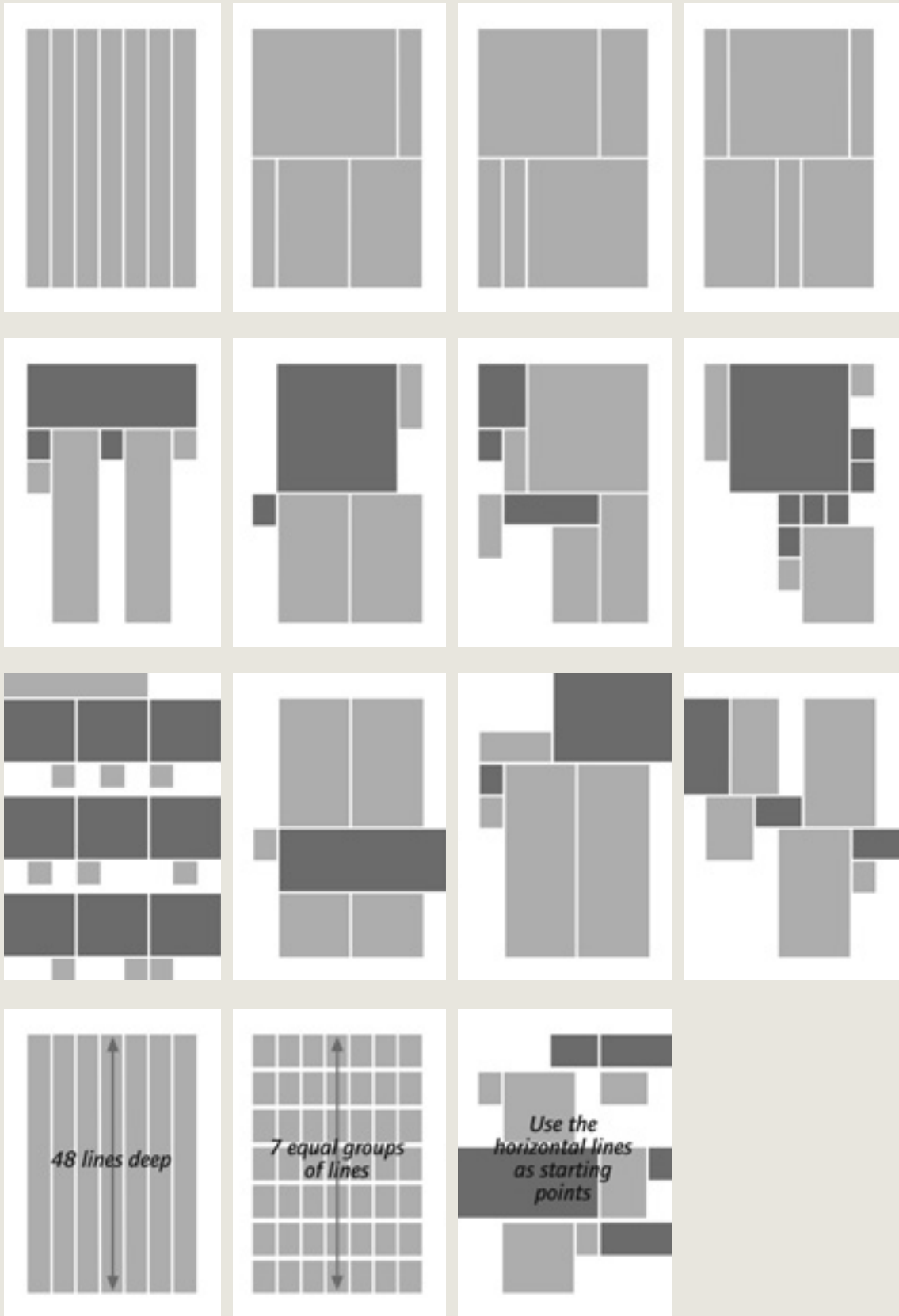
A piece of parchment (stretched and dried sheepskin) is prepared for writing by having a grid lightly drawn on it in this detail of a 1255 German illuminated letter.
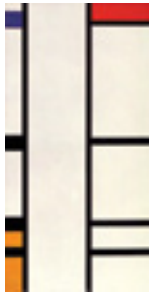
Piet Mondrian expressed de Stijl principles in his 1942 *Composition with Red, Yellow and Blue* using gridded space, asymmetrical composition, and primary colors.
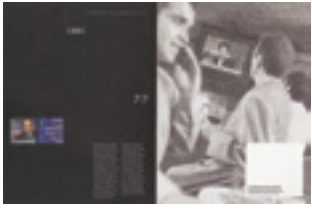
A grid is used in this spread from an annual report. The white box mortised into the image is the most different thing on the page. Though small, its caption is the focal point.

When elements have been fitted into an environment of sameness, whether on a grid or otherwise, a focal point becomes visible.

A seven-column grid structures space with flexibility. It imposes white space because the narrow columns must be combined to accommodate type, leaving at least one narrow column empty. Shown diagramatically, these column variations are not intended as layouts.

How to create a horizontal grid. Divide the maximum number of a page's text lines into equal groups, allowing a line between each group. For example, if there are forty-eight lines on a page, there can be seven units of six lines each with one line added between units (7 x 6 + 6 = 48).

A simpler grid is usually better than a complex grid. A grid's complexity should help the designer answer the questions, "How big should this element be and where should I put it?" A seven-column grid is universally functional and great fun to use because it contains many options (facing page, top three rows). But beware: overly complex grids offer so many options they become all but useless because they no longer limit choices. Readers can't recognize organization when the grid units are too small.

Structured design has a visible cadence and tension that leads from one element to the next in an orderly way. But if structure is followed without thoughtful manipulation, it produces repetitive sameness and boredom. Grid development must include a description of how and when the structure (or "normal" placement) will be violated. The rules of violation focus creativity and make grid-based design look fresh. The most important rule of violation is to have an element break the grid when it deserves to stand out. In a context of sameness, that lone element becomes very visible (above right).

In addition to organizing complex information on a particular page or spread, grids unite the cover and interior pages and relate one issue to the next. Grids also organize an entire company's visual requirements. They build family resemblance among on-screen applications, brochures, data sheets, and advertising.

"Simplicity of form is never a poverty, it is a great virtue." Jan Tschichold (1902–1974), typographer and designer

48 lines deep

7 equal groups of lines

Use the horizontal lines as starting points

Ho lasciato il bambino solo un momento in cucina – e l'ho ritrovato infarinato — da capo a piedi. Mi ri|

Hyphens and dashes come in three widths. Each has its own role, but it is up to the designer to choose which character will be used. A vertical hyphen has been proposed as a way to solve the need to hang a horizontal hyphen. A *hyphen* is a short horizontal bar used to indicate breaks in words at the ends of lines. An en-dash is slightly longer and used as a separator in elective situations, as between multiple compound words, and between numbers. An em-dash is the longest – I believe too long, because it becomes too noticeable in a text setting – and is used for sudden breaks in dialogue.

Punctuation and dashes

Punctuation developed as a way for scribes to indicate reading speed for out loud delivery of religious services. There were no standards for the use of punctuation until the invention of printing. In general, dots indicated word separations and were replaced by spaces by about AD 600. The dot, when aligned at cap height, was then used to indicate a stop, like a modern *period*, and when aligned at the baseline, to indicate a pause, like a modern *comma*. Aldus Manutius, one of the first printers in Italy, introduced the *semicolon, question mark,* and the slanted, condensed humanist letterforms, which came to be known as *italics*.

«*Quote marks* were introduced in Paris in 1557 as a pair of sideways Vs.» English printers eventually replaced those with inverted commas ("6s") at the opening and apostrophes ("9s"), which had been invented in the 1600s, at the end of a quote. Smart quotes like these are used in text while prime (') and double prime (") symbols – also called the vertical apostrophe – are used in numerals.

French spacing is the insertion of two word spaces after a period to highlight a new sentence. French spacing was used in monospaced typewritten copy through the twentieth century to help make sentence beginnings more visible. It is not necessary – and actually bad form – in proportionally spaced digital typesetting.

utarky."
utarky."
utarky."

Never use primes in text (top). Reduce the size of punctuation and the space after commas and periods *particularly in display type* for optical evenness.

A verbal interpretation of the "air quote," those annoying finger gestures people use to step outside what they are actually saying, is used to novel effect in this car, uh, *sedan*, ad.

Hung punctuation, the placement of punctuation marks in the margin beyond the flush edge of a column, was first use in type by Gutenberg, though it is today an automatic process in InDesign. Hang punctuation by placing it in the margin to create an *optically even* column edge.

Graphic Design/Typography

Praise for the Second Edition of
The Elements of Graphic Design

Wholly revised and updated, this pioneering work provides designers, art directors, and students — regardless of experience — with a unique approach to successful design. This full-color expanded edition includes two hundred new images — culled from the canons of design, painting, and architecture, as well as from the author's own files — a new section on Web design, and discussions of modularity, framing, motion and time, and rules and randomness. Learn how to:

- Employ white space as a significant component of design
- Define and reveal dominant images, words, and concepts
- Use scale, color, and position to guide through levels of importance
- Use type for maximum comprehension and value *to the reader*

Educator, author, and 28-year design veteran Alex W. White has assembled a wealth of information and examples in his exploration of what makes visual design stunning and easy to read.

"Questo libro spiega che cosa provo ad ottenere attraverso ai miei progettisti: come fare funzionare tutte le parti di un disegno insieme. Ciò è il libro che consegno quando le innovazioni sono necessarie." "This book explains what I try to get across to my designers: how to make all parts of a design work together. My office has a big library and this is the book I hand over when breakthroughs are needed." Matteo Bologna, CD and founder of Mucca Design

"Student or professional, if you need the 'simple' basics — or want to get to more 'complex' basics — if you don't yet know the necessities of successful graphic design — or have forgotten them in the complexity of today's overwhelming possibilities, here is the book for you. It's by a guy who has quite a track record of speaking to both." Ed Fella, former Detroit commercial artist, Professor in CalArts' graphic design program, AIGA Medalist

"An expert educator, Alex W. White has purified the fundamentals of graphic design into a vigorous and all-embracing book. No matter what stage of your design career, this second edition of The Elements of Graphic Design is, or ought to be, required reading." Kevin Smith, founder of And Smith LLC, one of *Print* Magazine's "New Visual Artists: 20 Talents Under 30," AIGA awards recipient, Professor at Parsons the New School for Design

"Alex W. White provides one of the clearest and most thoughtful introductions to graphic design that I've read. This book is also one of the few to really demystify the idea and use of white space in design — a topic that at once confuses young designers and causes seasoned clients to curl their lips with disdain. Read and learn." Alexander Isley, founder of Alexander Isley Inc., Lecturer at Yale Graduate School of Art, past President of AIGA NY

"The Elements of Graphic Design's first edition has been one of the most useful books on the details of design and effective visual communication. The second edition is certain to become a standard in every design studio library." Sharon Werner, founder of Werner Design Werks, has work included in the permanent collections of the Library of Congress, Victoria and Albert Museum, Musée des Arts Decoratifs, and the Cooper-Herwitt.

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