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Vertical text on the right edge of the page, including fragments like 'offering MOIRE', 'L', 'B', 'L', 'P', 'A', 'D', 'A', 'J', 'W', 'B', 'C', 'M', 'L', 'L'.

ELLEN LUPTON

thinking with

theory **type** practice *entertaining economical essential*

how why

A CRITICAL GUIDE FOR DESIGNERS, WRITERS, EDITORS, & STUDENTS

A DESIGN HANDBOOK

WALNUT SUITE DRAWING-ROOM FURNITURE, a great bargain, of sterling quality, equal to new; the price, 46 guineas, half its value; consisting of a fine oval l... table, an occasional d... of, chiffonier, with plate-glass back

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.....

BASKERVILLE

Designed by *John Baskerville*, 1757

.....

BODONI

Designed by *Giambattista Bodoni*, 1790s

.....

ADOBE

CASLON

Designed by *Carol Twombly*, 1990, based on pages printed by *William Caslon*, 1734–70

.....

CENTAUR

Designed by *Bruce Rogers*, 1912–14.
The italic, by *Frederic Warde*, is based on the fifteenth-century hand of *Ludovico degli Arrighi*.

.....

CENTURY EXPANDED

Designed by *Morris Fuller Benton*, 1900

.....

CLARENDON

Named for the *Clarendon Press*, Oxford, who commissioned it in 1845

.....

HTF

DIDOT

Designed by *Jonathan Hoefler*, 1992, inspired by the types of *François Ambroise Didot*, 1784

.....

FEDRA SANS

Designed by *Peter Bilak*, 2001, who was asked to create a "de-Protestantized Univers"

.....

.....

FILOSOFIA

Designed by *Zuzana Licko*, 1996, a revival of the types of *Bodoni*

.....

FRUTIGER

Designed by *Adrian Frutiger*, 1976

.....

FRANKLIN GOTHIC

Designed by *Morris Fuller Benton*, 1904

.....

FUTURA

Designed by *Paul Renner*, 1927, who sought an "honest expression of technical processes."

.....

GEORGIA

Designed by *Matthew Carter*, 1996, for display on screen

.....

GILL SANS

Designed by *Eric Gill*, 1928. It has been described as Britain's *Helvetica*.

.....

ADOBE

GARAMOND

Designed by *Robert Slimbach*, 1989, based on pages printed by *Claude Garamond* in the sixteenth century

.....

GOTHAM

Designed by *Tobias Frere-Jones*, 2000, inspired by lettering found at Port Authority Bus Terminal, New York City

.....

.....

HELVETICA

Designed by **Max Miedinger**, 1957

.....

HOEFLER TEXT

Designed by *Jonathan Hoefler*, c. 1995

.....

INTERSTATE

Designed by **Tobias Frere-Jones**, 1993,
inspired by U.S. highway signs

.....

ADOBE

JENSON

Designed by **Robert Slimbach**, 1995

.....

META

Designed by **Erik Spiekermann**, 1991

.....

MRS EAVES

Designed by *Zuzana Licko*, 1996,
inspired by pages printed by *John Baskerville*

.....

NEUTRAFACE

Designed by **Christian Schwartz**, House Industries,
2002, based on lettering created by the architect
Richard Neutra in the 1940s and 1950s

.....

NOBEL

Designed by **Tobias Frere-Jones**, 1993,
based on 1929 types by the Dutch typographer

Sjoerd Henrik de Roos.

Frere-Jones describes Nobel as
"Futura cooked in a dirty pan."

.....

.....

NEWS GOTHIC

Designed by **Morris Fuller Benton**, 1908

.....

QUADRAAT

Designed by **Fred Smeijers**, 1992

.....

SABON

Designed by *Jan Tschichold*, 1966,
inspired by the sixteenth-century types of
Claude Garamond

.....

SCALA

Designed by *Martin Majoor*, 1991

.....

THESIS SERIF

Designed by **Lucas de Groot**, 1994

.....

TRADE GOTHIC

Designed by **Jackson Burke**, 1948-60,
inspired by nineteenth-century grotesques

.....

UNIVERS

Designed by **Adrian Frutiger**, 1957

.....

VERDANA

Designed by **Matthew Carter**, 1996,
for display on screen

.....

WALBAUM

Designed by *Justus Erich Walbaum*, 1800

.....

ELLEN LUPTON

thinking
with

type

A CRITICAL GUIDE
FOR DESIGNERS,
WRITERS, EDITORS,
& STUDENTS



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INTRODUCTION

THE ORGANIZATION OF LETTERS on a blank page—or screen—is the designer's most basic challenge. What kind of font to use? How big? How should those letters, words, and paragraphs be aligned, spaced, ordered, shaped, and otherwise manipulated?

Anyone who regularly and enthusiastically commits acts of visual communication will find something to use and enjoy in this book, which offers practical information within a context of design history and theory. Some readers will be chiefly interested in the sections that present basic typographic principles in concise, non-dogmatic layouts. Others will spend more time with the critical essays, which look at the cultural frameworks of typography.

I decided to create this book because there was no adequate text to accompany my own courses in typography, which I have been teaching at Maryland Institute College of Art in Baltimore since 1997. Some books on typography focus on the classical page; others are vast and encyclopedic, overflowing with facts and details. Some rely too heavily on illustrations of their authors' own work, providing narrow views of a diverse practice, while others are chatty and dumbed-down, presented in a condescending tone.

I sought a book that is serene and intelligible, a volume where design and text gently collaborate to enhance understanding. I sought a work that is small and compact, economical yet well constructed—a handbook designed for the hands. I sought a book that reflects the diversity of typographic life, past and present, exposing my students to history, theory, and ideas. Finally, I sought a book that would be relevant across the media of visual communication, from the printed page to the glowing screen.

I had no alternative but to write the book myself.

Thinking with Type is assembled in three sections: LETTER, TEXT, and GRID, building from the basic atom of the letterform to the organization of words into coherent bodies and flexible systems. Each section opens with a narrative essay about the cultural and theoretical issues that fuel typographic design across a range of media. The demonstration pages that follow each essay show not just *how* typography is structured, but *why*, asserting the functional and cultural basis for design habits and conventions.

The first section, *LETTER*, reveals how early typefaces referred to the body, emulating the work of the hand. The abstractions of neoclassicism bred the strange progeny of nineteenth-century commercial typography. In the twentieth century, avant-garde artists and designers explored the alphabet as a theoretical system. After digital font design became a cottage industry and a mode of underground publishing in the 1980s, typography became a narrative form that revived its connections with the body.

The second section, *TEXT*, considers the massing of letters into larger bodies. Designers approach text as a continuous field whose grain, color, density, and silhouette can be endlessly adjusted. Technology has shaped the design of typographic space, from the concrete physicality of metal type to the flexibility—and constraints—offered by digital media. Text has evolved from a closed, stable body to a fluid and open ecology.

The third section, *GRID*, looks at spatial organization. Grids underlie every typographic system. In the early twentieth century, Dada and Futurist artists attacked the rectilinear constraints of metal type and exposed the mechanical grid of letterpress. Swiss designers in the 1940s and 1950s created design's first total methodology by rationalizing the grid. Their work, which introduced programmatic thinking to a field governed by taste and convention, remains profoundly relevant to the systematic thinking required when designing for multimedia.

Throughout the book, examples of design practice demonstrate *the elasticity of the typographic system*, whose rules can all be broken. Finally, the *APPENDIX* contains handy lists, helpful hints, dire warnings, and resources for further study.

This book is about thinking *with* typography—in the end, the emphasis falls on *with*. Typography is a tool for doing things *with*: shaping content, giving language a physical body, enabling the social flow of messages. Typography is an ongoing tradition that connects you *with* other designers, past and future. Type is *with* you everywhere you go—the street, the mall, the Web, your apartment. This book aims to speak to, and *with*, all the readers and writers, designers and producers, teachers and students, whose work engages the ordered yet unpredictable life of the visible word.

ACKNOWLEDGMENTS

AS A DESIGNER, WRITER, AND VISUAL THINKER, I am indebted to my teachers at the Cooper Union, where I studied art and design from 1981 to 1985. Back then, the design world was rather neatly divided between a Swiss-inflected modernism and an idea-based approach rooted in American advertising and illustration. My teachers, including George Sadek, William Bevington, and James Craig, staked out an odd place between those worlds, allowing the modernist fascination with abstract systems to collide with the strange, the poetic, and the popular.

The title of this book, *Thinking with Type*, is an homage to James Craig's primer *Designing with Type*, the utilitarian classic that was our text book at Cooper. If that book was a handyman's guide to basic typography, this one is a naturalist's field guide, approaching its subject as an organic system that is more evolutionary than mechanical. What I really learned from my teachers was how to *think* with type: how to use visual and verbal language to develop and deliver ideas. As a student, discovering typography was finding the bridge connecting written language to visual art.

To write my own book for the twenty-first century I have had to educate myself all over again. In 2003 I enrolled in the Doctorate in Communications Design program at the University of Baltimore. There I have worked with Stuart Moulthrop and Nancy Kaplan, world-class scholars, critics, and designers of networked media and digital interfaces. Their influence is seen throughout this book.

My colleagues at Maryland Institute College of Art have built a distinctive design culture at the school; special thanks go to Ray Allen, Fred Lazarus, Elizabeth Nead, Bernard Canniffe, Jennifer Cole Phillips, Rachel Schreiber, and all my students, past and future.

My editor, Mark Lamster, has kept this project alive and conscious across its seemingly endless development. I also thank Eric Karnes and Elke Gasselseder, Kevin Lippert at Princeton Architectural Press, Timothy Linn at Asia Pacific Offset, William Noel at the Walters Art Museum, Paul Warwick Thompson and Barbara Bloemink at the Cooper-Hewitt, National Design Museum, and all the designers who shared their work with me.

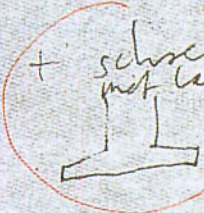
I learn something every day from my children, Jay and Ruby, and from my parents, my twin, and the amazing Miller family. My friends—Jennifer Tobias, Edward Bottone, Claudia Matzko, Darsie Alexander, and Joy Hayes—sustain my life. My husband, Abbott Miller, is the greatest designer I know, and I am proud to include him in this volume.

Zie ook Sheldon en Cascell.

abbAAapp 33

| | | | | | |
|-----------------------|-----------------|---------------------------------|------------------------------|--------------------------------|--|
| long o.k. short | short | long caps short kapit. | long kapit. | long short short long | in de caps in (als de Bel.) reg |
| o.k. | o.k. asc. | o.k. asc. | | long short short long | geen cursief cijfers |
| reg + vet | reg + vet | reg + vet | reg + curs + vet | reg + curs + vet | |

+ schreef ??
met laag contrast
zie



~~MAJOR~~
condensed

MA Major sans
MA Major serif
MA Minor sans
MA Minor serif

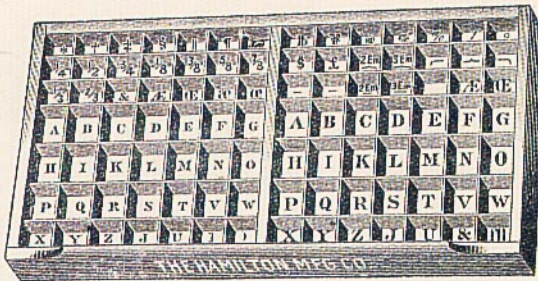
15
16
9

MARTIN MAJOR began designing the typeface *Seria* with this napkin sketch made on a train from Berlin to Warsaw in 1996. The typeface was released by FontShop International in 2000. Most contemporary typefaces ultimately take a digital form, but many are rooted in calligraphic tradition and originate in handwritten sketches and prototypes.

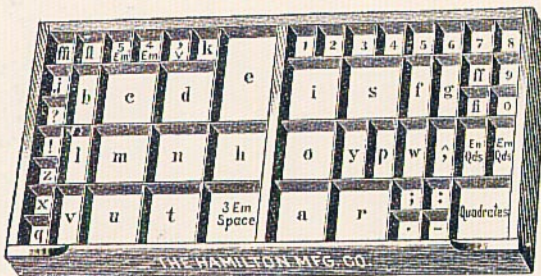
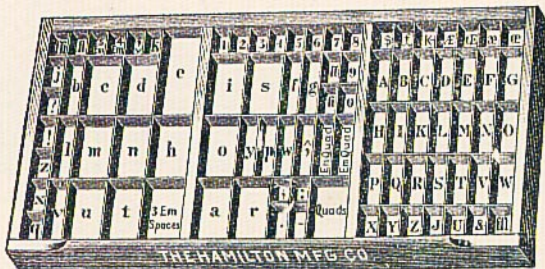
LETTER

TYPE, SPACES, AND LEADS

3



Upper Case.

Lower Case.
A PAIR OF CASES.

California Job Case.

FIG. 2.—Showing Lay of Cases.

TYPE, SPACES, AND LEADS
Diagram from book, 1917
Author: Frank S. Henry.

In a traditional printing shop, gridded cases hold fonts of type and spacing material. Capital letters are stored in a drawer above the minuscule letters. Hence the terms "uppercase" and "lowercase" are derived from the physical space of the print shop.

LETTER

THIS IS NOT A BOOK ABOUT FONTS. It is a book about how to use them. Typefaces are an essential resource employed by graphic designers, just as glass, stone, steel, and countless other materials are employed by architects. Graphic designers sometimes create their own fonts and custom lettering. More commonly, however, they tap the vast library of existing typefaces, choosing and combining them in response to a particular audience or situation. To do this with wit and wisdom requires knowledge of how—and why—letterforms have evolved.

Words originated as gestures of the body. The first typefaces were directly modeled on the forms of calligraphy. Typefaces, however, are not bodily gestures—they are manufactured images designed for infinite repetition. The history of typography reflects a continual tension between the hand and the machine, the organic and the geometric, the human body and the abstract system. These tensions, which marked the birth of printed letters over five hundred years ago, continue to energize typography today.

Movable type, invented by Johannes Gutenberg in Germany in the early fifteenth century, revolutionized writing in the West. Whereas scribes had previously manufactured books and documents by hand, printing with type allowed for mass production: large quantities of letters could be cast from a mold and assembled into “forms.” After the pages were proofed, corrected, and printed, the letters were put away in gridded cases for reuse.

Movable type had been employed earlier in China, but it had proven less useful there. Whereas the Chinese writing system contains tens of thousands of distinct characters, the Latin alphabet translates the sounds of speech into a small set of marks, making it well-suited to mechanization. Gutenberg’s famous Bible took the handmade manuscript as its model. Emulating the dense, dark handwriting known as “blackletter,” he reproduced its erratic texture by creating variations of each letter as well as numerous ligatures (characters that combine two or more letters into a single form).

JOHANNES
GUTENBERG
Printed text,
1456

rum: que ip
dige. filia
ntas illis d
tantū bonū
nostros. ric
stantia eoy
nostra eūt.
et habitāte
Allenq; lu
maribus. Et
mus vulne
filij iacob. li
dija. ingress
intercediq;
sichan parie
de domo su
gressis. itū
iacob. 7 dep
onau supri: oues eoy et armenta. i
alimos. cundaq; vastantes que in d
nibus 7 i agris exant: paruulos q; eoy
et uxores duxerūt captiuas. Quibus

This chapter extends and revises “Laws of the Letter,” Ellen Lupton and J. Abbott Miller, *Design Writing Research: Writing on Graphic Design* (New York: Kiosk, 1996; London: Phaidon, 1999), 53–61.

NICOLAS JENSON learned to print in Mainz, the German birthplace of typography, before establishing his own printing press in Venice.

His letters have strong vertical stems, and the transition from thick to thin reflects the path of a broad-nibbed pen.

**ilos appellatur mariti
euir dicitur frater mar
ratriæ appellantur quæ
mitini fratrum & ma
atruelles matrum fratr
õsobrini ex duabus ed
ta sunt in antiquis au**

>Lorem ipsum dolor si
consectetuer adipiscing el
Integer pharetra, nisl u
luctus ulla mcorper, au
tortor egestas ante, vel
pede urna ac neque. M
ac mi eu purus tincidu

**vanum laboraverunt
si Dominus custodie
stra vigilavit qui costi
num est vobis ante lu
rgere postquam sede
i manducatis panem
m dederit dilectis sui
ALMI IVXTA LXX**

CENTAUR is designed by the Dutch typographer, teacher, and theorist Gerrit Noordzij. This digitally constructed font, designed in the 1990s, captures the dynamic, three-dimensional quality of fifteenth-century roman

typefaces as well as their gothic (rather than humanist) origins.

As Noordzij explains, Jenson "adapted the German letters to Italian fashion (somewhat rounder, somewhat lighter), and thus created roman type."

**verse to reach the
the iiii wekis, and how l
lord, yet the chirche mak
that is to wete, of that he
and of that he cometh to
in thoffyce of the chircl
tynges that ben in this
one partie, & that othe
cause of the comynge of
ben of iove and gladnes**

>Lorem ipsum dolor sit
consectetuer adipiscing
Integer pharetra, nisl u
luctus ulla mcorper, au
tortor egestas ante, vel
pede urna ac neque. M
ac mi eu purus tincidu

>Lorem ipsum dolor s
consectetuer adipisci
Integer pharetra, nis
ulla mcorper, augue t
ante, vel pharetra pec
neque. Mauris ac mi
tincidunt faucibus. P
dignissim lectus. Nun

GOLDEN TYPE was created by the English design reformer William Morris in 1890. He sought to recapture the dark and solemn density of Jenson's pages.

ADOBE JENSON was designed in 1995 by Robert Slimbach, who reconceives historical typefaces for digital use. Adobe Jenson is less mannered and decorative than Centaur.

SCALA was introduced in 1991 by the Dutch typographer Martin Majoor. Although this thoroughly contemporary typeface has geometric serifs and rational, almost modular forms, it reflects the calligraphic origins of type, as seen in letters such as a.

HUMANISM AND THE BODY

In fifteenth-century Italy, humanist writers and scholars rejected gothic scripts in favor of the *lettera antica*, a classical mode of handwriting with wider, more open forms. The preference for *lettera antica* was part of the Renaissance (rebirth) of classical art and literature. Nicolas Jenson, a Frenchman who had learned to print in Germany, established an influential printing firm in Venice around 1469. His typefaces merged the gothic traditions he had known in France and Germany with the Italian taste for rounder, lighter forms. They are considered among the first—and finest—roman typefaces.

Many fonts we use today, including Garamond, Bembo, Palatino, and Jenson, are named for printers who worked in the fifteenth and sixteenth centuries. These typefaces are generally known as “humanist.” Contemporary revivals of historical fonts are designed to conform with modern technologies and current demands for sharpness and uniformity. Each revival responds to—or reacts against—the production methods, printing styles, and artistic habits of its own time. Some revivals are based on metal types, punches, or drawings that still exist; most rely solely on printed specimens.

Italic letters, also introduced in fifteenth-century Italy (as their name suggests), were modeled on a more casual style of handwriting. While the upright humanist scripts appeared in prestigious, expensively produced books, the cursive form was used by the cheaper writing shops, where it could be written more rapidly than the carefully formed *lettera antica*. Aldus Manutius was a Venetian printer, publisher, and scholar who used italic typefaces in his internationally distributed series of small, inexpensive books. The cursive form saved money because it saved space. Aldus Manutius’s books often paired cursive letters with roman capitals; the two styles still were considered fundamentally distinct.

In the sixteenth century, printers began integrating roman and italic forms into type families with matching weights and x-heights (the height of the main body of the lowerface letter). Today, the italic style in most fonts is not simply a slanted version of the roman; it incorporates the curves, angles, and narrower proportions associated with cursive forms.

comme i'ay des-ia remarqué, * S. Augustin demande aux Donatistes en vne semblable occurrence : *Quoy donc ? lors que nous lisons, oublions nous comment nous auons accoustumé de parler ? l'écriture du grand Dieu*

* Aug. lib. 33. contra Fanf. c. 7. Quid ergo: cum legimus, obliuiscimur quem admodum loqui solemus? An scriptura Dei aliter no-

On the complex origins of roman type, see Gerrit Noordzij, *Letterletter* (Vancouver: Hartley and Marks, 2000).

S ed ne forte tuo adrea
Hic timor est ipfis
N on adeo leuiter nost
Vt meus oblito pulh
I llic phylacides inuui
Non potuit cæcis im
S ed cupidus falsis atti
Thessalis antiquam
I llic quicquid ero ser
Traicit & fati litto
I llic formosæ uenian
Quas dedit argui
Quarum nulla tua fu
Gratior, & tellus h
Quamuis te longæ rei
Cara tamen lachry

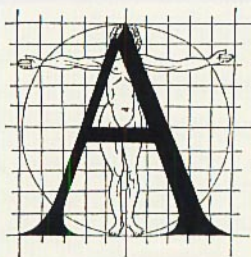
FRANCESCO

GRIFFO

Roman and italic types designed for Aldus Manutius, c. 1500. They are conceived as two separate typefaces.

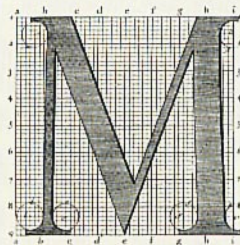
JEAN JANNON

Roman and italic types for the Imprimerie Royale, Paris, 1642, coordinated into a larger type family.



GEOFROY TORY argued that letters should reflect the ideal

human body. Regarding the letter A, he wrote: "the cross-stroke covers the man's organ of generation, to signify that Modesty and Chastity are required, before all else, in those who seek acquaintance with well-shaped letters."



LOUIS SIMONNEAU designed model letterforms for the printing press

of Louis XIV. Instructed by a royal committee, Simonneau designed his letters on a finely meshed grid. A royal typeface (romain du roi) was then created by Philippe Grandjean, based on Simonneau's engravings.

By WILLIAM CASLON,

DOUBLE
 ABCD Quousque t
 ABCDE nos etiam fu
 quem ad fin
 ABCDEF

WILLIAM CASLON created typefaces in eighteenth-century England with crisp, upright characters that appear, as Robert Bringhurst has written, "more modelled and less written than Renaissance forms."

S P E C I M

By JOHN BASKERVILLE

JOHN BASKERVILLE was a printer working in England in the 1750s and

Am indebted to you for two if to me
 Letters dated from Corcyra. Country

1760s. He aimed to surpass Caslon by creating sharply detailed letters with more vivid contrast between thick and thin elements. Whereas Caslon's letters were widely used in his own time, Baskerville's work was denounced by many of his contemporaries as amateur and extremist.

AUSTERLITII

GIAMBATTISTA BODONI created letters at the close of the eighteenth century that exhibit abrupt, unmodulated contrast between thick and thin and razor-thin serifs that are unsupported by curved "brackets." Similar typefaces were designed in the same period by François Ambroise Didot (1784) in France and Justus Erich Walbaum (1800) in Germany.

A GALLIS

CE

E MAXIM

Aabcdef

A B C D

R

aabbccddeee

A B C D

N O P Q

GEORGE BICKHAM, 1743.
Samples of "Roman Print"
and "Italian Hand."

This accusation was reported to Baskerville in a letter from his admirer Benjamin Franklin. For the full letter, see F. E. Pardoe, *John Baskerville of Birmingham: Letter-Founder and Printer* (London: Frederick Muller Limited, 1975), 68. See also Robert Bringhurst, *The Elements of Typographic Style* (Vancouver: Hartley and Marks, 1992, 1997).

ENLIGHTENMENT AND ABSTRACTION

Renaissance artists sought standards of proportion in the idealized human body. The French designer and typographer Geofroy Tory published a series of diagrams in 1529 that linked the anatomy of letters to the anatomy of man. A new approach—distanced from the body—would unfold in the age of scientific and philosophical Enlightenment.

A committee appointed by Louis XIV in France in 1693 set out to construct roman letters against a finely meshed grid. Whereas Geofroy Tory's diagrams were produced as woodcuts, the gridded depictions of the *romain du roi* (king's alphabet) were engraved, made by incising a copper plate with a tool called a graver. The lead typefaces derived from these large-scale diagrams reflect the linear character of engraving as well as the scientific attitude of the king's committee.

Engraved letters—whose fluid lines are unconstrained by letterpress's mechanical grid—offered an apt medium for formal lettering. Engraved reproductions of penmanship disseminated the work of the great eighteenth-century writing masters. Books such as George Bickham's *The Universal Penman* (1743) featured roman letters—each engraved as a unique character—as well as lavishly curved scripts.

Eighteenth-century typography was influenced by new styles of handwriting and their engraved reproductions. Printers like William Caslon in the 1720s and John Baskerville in the 1750s abandoned the rigid nib of humanism for the flexible steel pen and the pointed quill, instruments that rendered a fluid, swelling path. Baskerville, himself a master calligrapher, would have admired the thinly sculpted lines that appeared in the engraved writing books. He created typefaces of such sharpness and contrast that contemporaries accused him of "blinding all the Readers in the Nation; for the strokes of your letters, being too thin and narrow, hurt the Eye." To heighten the startling precision of his pages, Baskerville made his own inks and hot-pressed his pages after printing.

The severe vocabulary of Baskerville was carried to an extreme by Giambattista Bodoni in Italy and Firmin Didot in France at the turn of the nineteenth century. Their typefaces—which have a wholly vertical axis, extreme contrast between thick and thin, and crisp, waferlike serifs—were the gateway to a new vision of typography unhinged from calligraphy.

The *romain du roi* was designed not by a typographer but by a government committee consisting of two priests, an accountant, and an engineer. Robert Bringhurst, 1992

P. VIRGILII MARONIS

BUCOLICA

ECLOGA I. cui nomen TITYRUS.

MELIBŒUS, TITYRUS.

TITYRE, tu patulæ recubans sub tegmine fagi
Silvestrem tenui Musam meditaris avena:
Nos patriæ fines, et dulcia linquimus arva;
Nos patriam fugimus: tu, Tityre, lentus in umbra
5 Formosam resonare doces Amaryllida silvas.
T. O Melibœe, Deus nobis hæc otia fecit:
Namque erit ille mihi semper Deus: illius aram
Sæpe tener nostris ab ovilibus imbuet agnus.
Ille meas errare boves, ut cernis, et ipsum
10 Ludere, quæ vellem, calamo permittit agresti.
M. Non equidem invideo; miror magis: undique totis
Usque adeo turbatur agris. en ipse capellas
Protenus æger ago: hanc etiam vix, Tityre, duco:
Hic inter densas corylos modo namque gemellos,
15 Spem gregis, ah! filice in nuda connixa reliquit,
Sæpe malum hoc nobis, si mens non læva fuisset,
De cœlo tactas memini prædicere quercus:
Sæpe sinistra cava prædixit ab ilice cornix.
Sed tamen, iste Deus qui sit, da, Tityre, nobis.
20 T. Urbem, quam dicunt Romam, Melibœe, putavi
Stultus ego huic nostræ similem, quo sæpe solemus
Pastores ovium teneros depellere fœtus.
Sic canibus catulos similes, sic matribus hœdos

A

Noram;

LA THÉBAÏDE, OU LES FRÈRES ENNEMIS,

TRAGÉDIE.

ACTE PREMIER.

SCENE I.

JOCASTE, OLYMPE.

JOCASTE.

Ils sont sortis, Olympe? Ah! mortelles douleurs!
Qu'un moment de repos me va coûter de pleurs!
Mes yeux depuis six mois étoient ouverts aux larmes,
Et le sommeil les ferme en de telles alarmes!
Puisse plutôt la mort les fermer pour jamais,
Et m'empêcher de voir le plus noir des forfaits!
Mais en sont-ils aux mains?

VIRGIL (LEFT)

Book page, 1757

Printed by John Baskerville

The typefaces created by John Baskerville in the eighteenth century were remarkable—

even shocking—in their day for their sharp, upright forms and stark contrast between thick and thin elements. In addition to a roman text face, this page utilizes italic capitals, large-scale capitals (generously letterspaced), small capitals (scaled to coordinate with lowercase text), and non-lining or old-style numerals (designed with ascenders, descenders, and a small body height to work with lowercase characters).

RACINE (RIGHT)

Book page, 1801

Printed by Firmin Didot

The typefaces cut by the Didot family in France were even more abstract and severe than those of Baskerville, with slablike, unbracketed serifs and a stark contrast from thick to thin. Nineteenth-century printers and typographers called these glittering typefaces “modern.”

Both pages are reproduced from William Dana Orcutt, *In Quest of the Perfect Book* (New York: Little, Brown and Company, 1926); margins are not accurate.

1825;

At 10 o'Clock in the Morning:

A QUANTITY OF OL

ORDAG

Sails &c

ing the rem
ck of the Sch

[J. Soulb

FAT FACE is the name that was given to the inflated, hyper-bold type style introduced in the early nineteenth century. These faces exaggerated the polarization of letters into thick and thin components seen in the formal typography of Bodoni and Didot.

GU
hau
RIE

EGYPTIAN, or slab, typefaces transformed the serif from a refined detail to a load-bearing slab. As an independent architectural component, the slab serif asserts its own weight and mass. Introduced in 1806, this style was quickly denounced by purists as "a typographical monstrosity."

RIDE

EXTRA CONDENSED typefaces are designed to fit in narrow spaces. Nineteenth-century advertisements often combined fonts of varying style and proportion on a single page. These bombastic mixtures were typically aligned, however, in static, centered compositions.

IARE
NONE
MEN

GOTHIC is a nineteenth-century term for letters with no serifs. Such typefaces could command attention with their massive frontality. Although sans-serif fonts often served in the twentieth century to convey neutrality, flamboyantly decorated gothics were once common.

My person was hideous, my stature gigantic. What did this mean? Who was I? What was I?...
Accursed creator! Why did you create a monster so hideous that even you turned away from
me in disgust? Mary Shelley, *Frankenstein*, 1831

MONSTER FONTS

Although Bodoni and Didot fueled their designs with the calligraphic practices of their time, they created forms that collided with typographic tradition and unleashed a strange new world, where the structural attributes of the letter—serif and stem, thick and thin strokes, vertical and horizontal stress—would be subject to bizarre experiments. In search of a beauty both rational and sublime, Bodoni and Didot had created a monster: an abstract and dehumanized approach to the design of letters.

With the rise of industrialization and mass consumption in the nineteenth century came the explosion of advertising, a new form of communication demanding new kinds of typography. Big, bold faces were designed by distorting the anatomical elements of classical letters. Fonts of astonishing height, width, and depth appeared—expanded, contracted, shadowed, inlined, fattened, faceted, and floriated. Serifs abandoned their role as finishing details to become independent architectural structures, and the vertical stress of traditional letters migrated in new directions.



Type historian Rob Roy Kelly (1926–2004) studied the mechanized design strategies that served to generate a spectacular variety of display letters in the nineteenth century. This diagram shows how the basic square serif form—called Egyptian or slab—was cut, pinched, pulled, and curled to spawn new species of ornament. Serifs were transformed from calligraphic end-strokes into independent geometric elements that could be freely adjusted.

Lead, the material for casting metal type, is too soft to hold its shape at large sizes under the pressure of the printing press. In contrast, type cut from wood could be printed at gigantic scales. The introduction of the combined pantograph and router in 1834 revolutionized wood-type manufacture. The pantograph is a tracing device that, when linked to a router for carving, allows a parent drawing to spawn variants with different proportions, weights, and decorative excrescences.

This mechanized design approach treated the alphabet as a flexible system divorced from the calligraphic tradition. The search for archetypal, perfectly proportioned letterforms gave way to a view of typography as an elastic system of formal features (weight, stress, stem, crossbars, serifs, angles, curves, ascenders, descenders). The relationships among letters in a font became more important than the identity of individual characters.

For extensive analysis and examples of decorated types, see Rob Roy Kelly, *American Wood Type: 1828–1900, Notes on the Evolution of Decorated and Large Letters* (New York: Da Capo Press, 1969). See also Ruari McLean, "An Examination of Egyptians," *Texts on Type: Critical Writings on Typography*, ed. Steven Heller and Philip B. Meggs (New York: Allworth Press, 2001), 70–76.



DURYEAS' IMPORTED CORNSTARCH (LEFT)
Lithographic trade card, 1878
The rise of advertising in the nineteenth century stimulated demand for large-scale letters that could command attention in urban space. Here, a man is shown posting a bill in flagrant disregard for the law, while a police officer approaches from around the corner.

FULL MOON (RIGHT)
Letterpress poster, 1875
A dozen different fonts are used in this poster for a steamship cruise. A size and style of typeface has been chosen for each line to maximize the scale of the letters in the space allotted. Although the typefaces are exotic, the centered layout is as static and conventional as a tombstone.

FULL MOON.

ST. MICHAEL'S TEMPERANCE BAND!

Prof. V. Yeager, Leader, will give a

GRAND MOONLIGHT

EXCURSION

On the Steamer

BELLE!

To Osbrook and Watch Hill,
On Saturday Evening, July 17th,

Leaving Wharf at 7½ o'clock. Returning to Westerly
at 10½ o'clock. Kenneth will be at Osbrook.

TICKETS, - FORTY CENTS.

G. B. & J. H. Utter, Steam Printers, Westerly, R. I.

THEO VAN DOESBURG, founder and chief promoter of the Dutch De Stijl movement, designed this alphabet with perpendicular elements in 1919. Applied here to the letterhead of the Union of Revolutionary Socialists, the hand-drawn characters vary in width, allowing them to fill out the overall rectangle. The De Stijl movement called for the reduction of painting, architecture, objects, and letters to elemental units.

BOND VAN
REVOLUTIONNAIR
SOCIALISTISCHE
INTELLECTUEELEN

DE STIJL

VILMOS HUSZÁR designed this logo for the magazine De Stijl in 1917. Whereas Van Doesburg's characters are unbroken, Huszár's letters consist of pixel-like modules.

abcdefghijklmnopqr
stuvwxyz
a d d

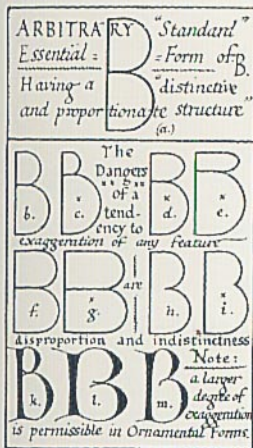
HERBERT BAYER created this typeface design, called universal, at the Bauhaus in 1925. Consisting only of lowercase letters, it is built from straight lines and circles.

FETTE FUTURA

GOETH
STOFF

PAUL RENNER designed Futura in Germany in 1927. Although it is strongly geometric, with perfectly round Os, Futura is a practical, subtly designed typeface that remains widely used today.

REFORM AND REVOLUTION



EDWARD JOHNSTON based this 1906 diagram of “essential” characters on ancient Roman inscriptions. While deriding commercial display lettering, Johnston accepted the embellishment of medieval-inspired forms.

On Futura, see Christopher Burke, *Paul Renner: The Art of Typography* (New York: Princeton Architectural Press, 1998). On the experimental typefaces of the 1920s and 1930s, see Robin Kinross, *Unjustified Texts: Perspectives on Typography* (London: Hyphen Press, 2002), 233–45.

Some designers viewed the distortion of the alphabet as gross and immoral, tied to a destructive and inhumane industrial system. Writing in 1906, Edward Johnston revived the search for an essential, standard alphabet and warned against the “dangers” of exaggeration. Johnston, inspired by the nineteenth-century Arts and Crafts movement, looked back to the Renaissance and Middle Ages for pure, uncorrupted letterforms.

Although reformers like Johnston remained romantically attached to history, they redefined the designer as an intellectual distanced from the commercial mainstream. The modern design reformer was a critic of society, striving to create objects and images that would challenge and revise dominant habits and practices.

The avant-garde artists of the early twentieth century rejected historical forms but adopted the model of the critical outsider. Members of the De Stijl group in the Netherlands reduced the alphabet to perpendicular elements. At the Bauhaus, Herbert Bayer and Josef Albers constructed alphabets from basic geometric forms—the circle, square, and triangle—which they viewed as elements of a universal language of vision.

Such experiments approached the alphabet as a system of abstract relationships. Like the popular printers of the nineteenth century, avant-garde designers abandoned the quest for an essential, perfectly shaped alphabet, but they offered austere, theoretical alternatives in place of the solicitous novelty of mainstream advertising.

Assembled, like machines, from modular components, these experimental designs emulated factory production. Yet most were produced by hand rather than as mechanical typefaces (although many are now available digitally). Futura, designed by Paul Renner in 1927, embodied the obsessions of the avant garde in a multipurpose, commercially available typeface. Although Renner rejected the active movement of calligraphy in favor of forms that are “calming” and abstract, he tempered the geometry of Futura with subtle variations in stroke, curve, and proportion. Renner designed Futura in numerous weights, viewing his font as a painterly tool for constructing a page in shades of gray.

The calming, abstract forms of those new typefaces that dispense with handwritten movement offer the typographer new shapes of tonal value that are very purely attuned. These types can be used in light, semi-bold, or in saturated black forms. Paul Renner, 1931

NEU ALPHABET

UNE
possibilité
pour
le
nouveau
développement

EEN
mogelijkheid
voor
de
nieuwe
ontwikkeling

UNE
possibilité
pour
le
développement
nouveau

EINE
Möglichkeit
für
das
neue
Entwickeln

AN
Introduction
for
a
produced
typography

WIM CROUWEL published his designs for a "new alphabet," consisting of no diagonals or curves, in 1967. The Foundry (London) began developing and releasing digital editions of Crouwel's typefaces in 1997.

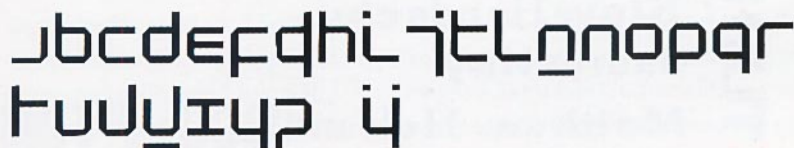
See Wim Crouwel, *New Alphabet* (Amsterdam: Wim Crouwel/Total Design, 1967); and Wim Crouwel, Kees Broos, and David Quay, *Wim Crouwel: Alphabets* (Amsterdam: BIS Publishers, 2003).

TYPE AS PROGRAM

Responding in 1967 to the rise of electronic communication, the Dutch designer Wim Crowwel published designs for a “new alphabet” constructed from straight lines. Rejecting centuries of typographic convention, he designed his letters for optimal display on a video screen (CRT), where curves and angles are rendered with horizontal scan lines. In a brochure promoting his new alphabet, subtitled “An Introduction for a Programmed Typography,” he proposed a design methodology in which decisions are rule-based and systematic.



WIM CROWWEL presented this “scanned” version of a Garamond a in contrast with his own new alphabet, whose forms accept the gridded structure of the screen.



In the mid-1980s, personal computers and low-resolution printers put the tools of typography in the hands of a broader public. In 1985 Zuzana Licko began designing typefaces that exploited the rough grain of early desktop systems. While other digital fonts imposed the coarse grid of screen displays and dot-matrix printers onto traditional typographic forms, Licko embraced the language of digital equipment. She and her husband, Rudy VanderLans, cofounders of Emigre Fonts and *Emigre* magazine, called themselves the “new primitives,” pioneers of a technological dawn.

ZUZANA LICKO created coarse-resolution fonts for desktop screens and printers in 1985. These fonts have since been integrated into Emigre’s extensive Lo-Res font family, designed for print and digital media.

Emigre Oakland Emperor

See Rudy VanderLans and Zuzana Licko, *Emigre: Graphic Design into the Digital Realm* (New York: Van Nostrand Reinhold, 1993).

By the early 1990s, with the introduction of high-resolution laser printers and outline font technologies such as PostScript, type designers were less constrained by low-resolution outputs. The rise of the Internet as well as cell phones, hand-held video games, and PDAs, have insured the continued relevance of pixel-based fonts as more and more information is designed for publication directly on screen.

Living with computers gives funny ideas. Wim Crowwel, 1967

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Linda Ferguson

Steve Handschu
James Hay

Matthew Holland **SCULPTURE**

Gary Laatsch
Brian Liljeblad

Dora Natella
Matthew Schellenberg

Richard String

Michell Thomas

Robert Wilhelm

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ED FELLA produced a body of experimental typography that strongly influenced typeface design in the 1990s. His posters for the Detroit Focus Gallery feature damaged and defective forms, drawn by hand or culled from third-generation photocopies or from sheets of transfer lettering. Collection of the Cooper-Hewitt, National Design Museum.

SCULPTURE
JUNE 8 - JULY 7, 1990

TYPE AS NARRATIVE

In the early 1990s, as digital design tools began supporting the seamless reproduction and integration of media, many designers grew dissatisfied with clean, unsullied surfaces, seeking instead to plunge the letter into the harsh and caustic world of physical processes. Letters, which for centuries had sought perfection in ever more exact technologies, became scratched, bent, bruised, and polluted.

Template Gothic: flawed technology

Barry Deck's typeface Template Gothic, designed in 1990, is based on letters drawn with a plastic stencil. The typeface thus refers to a process that is at once mechanical and manual. Deck designed Template Gothic while he was a student of Ed Fella, whose experimental posters inspired a generation of digital typographers. After Template Gothic was released commercially by Emigre Fonts, its use spread worldwide, making it an emblem of "digital typography" for the 1990s.

Dead History: feeding on the past

P. Scott Makela's typeface Dead History, also designed in 1990, is a pastiche of two existing typefaces: the traditional serif font Centennial and the Pop classic VAG Rounded. By manipulating the vectors of readymade fonts, Makela adopted the sampling strategy employed in contemporary art and music. He also referred to the importance of history and precedent, which play a role in nearly every typographic innovation.

CcDdEeFfGgHhIiJjKk

The Dutch typographers Erik von Blokland and Just van Rossum have combined the roles of designer and programmer, creating typefaces that embrace chance, change, and uncertainty. Their 1990 typeface Beowulf was the first in a series of typefaces with randomized outlines and programmed behaviors.

The industrial methods of producing typography meant that all letters had to be identical....Typography is now produced with sophisticated equipment that doesn't impose such rules. The only limitations are in our expectations. Erik van Blokland and Just van Rossum, 2000

BACK TO WORK

Although the 1990s are best remembered for images of decay, typeface designers continued to build a repertoire of general purpose fonts designed to comfortably accommodate broad bodies of text. Rather than narrate the story of their own birth, such workhorse fonts provide graphic designers with flexible palettes of letterforms coordinated within larger families.

Mrs Eaves: working woman

Zuzana Licko, fearless pioneer of the digital dawn, produced historical revivals during the 1990s alongside her experimental display faces. Her 1996 typeface Mrs Eaves, inspired by the eighteenth-century types of John Baskerville (and named after his mistress and housekeeper Sarah Eaves), became one of the most popular typefaces of its time.

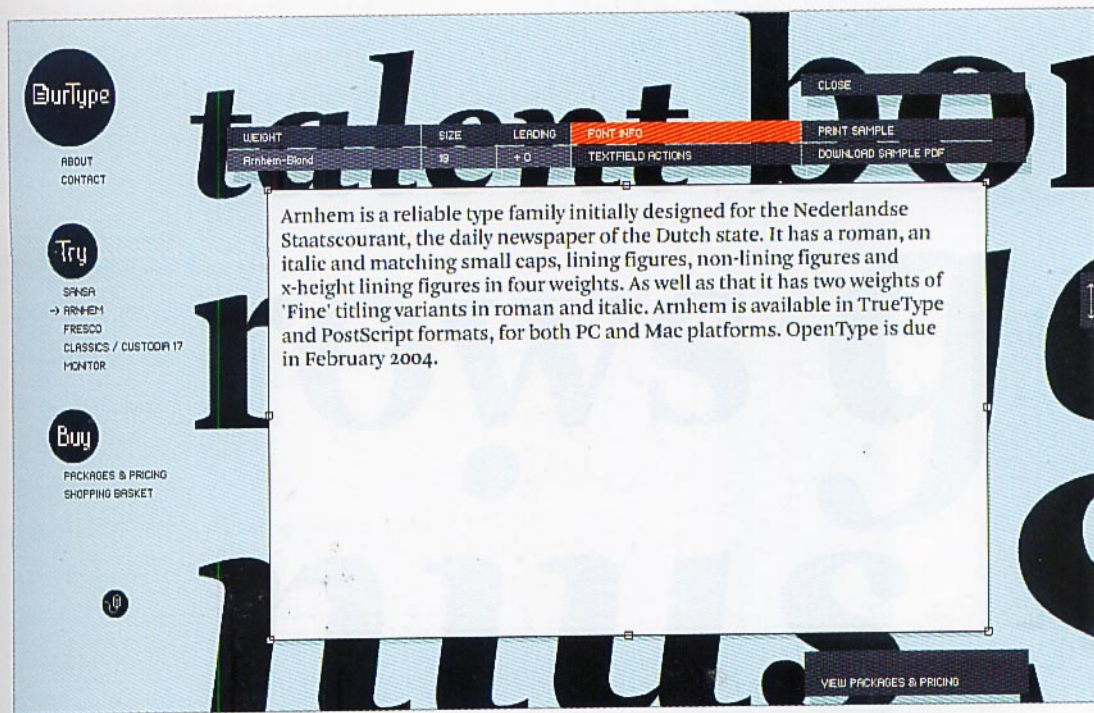
Quadraat: all-purpose Baroque

Designed in the Netherlands, typefaces such as Martin Majoor's Scala (used for the text of this book) and Fred Smeijers's Quadraat offer crisp interpretations of typographic tradition. These typefaces look back to sixteenth-century printing from a contemporary point of view, as seen in their decisively geometric serifs. Introduced in 1992, the Quadraat family has expanded to include sans-serif forms in numerous weights and styles.

Gotham: blue-collar curves

In 2000 Tobias Frere-Jones introduced Gotham, derived from letters found at the Port Authority Bus Terminal in New York City. Gotham expresses a no-nonsense, utilitarian attitude that persists today alongside the aesthetics of grunge, neofuturism, pop-culture parodies, and straight historical revivals that are all part of contemporary typography.

When choosing a font, graphic designers consider the history of typefaces and their current connotations as well as their formal qualities. The goal is to find an appropriate match between a style of letters and the specific social situation and body of content that define the project at hand. There is no playbook that assigns a fixed meaning or function to every typeface; each designer must confront the library of possibilities in light of a project's unique circumstances.



OURTYPE.COM

Web site, 2004

Designers and publishers: Fred Smeijers and Rudy Geeraerts

*This Flash-based Web site for a digital type foundry allows users to test fonts on the fly. The designers launched their own "label" after creating fonts such as *Quadrat* for FontShop International. Displayed here is the typeface *Arnhem*.*

Can we envision

1. a font that asks more questions than it answers
2. a font that has projective memory that reminds you to remember
3. a font with a limited life span
4. a font with an expiry date
5. a font that's gone bad
6. a font without temporal inflection, without the imprint of its time
7. an apolitical font, a font that doesn't care
8. a font unaffected by the force of gravity and the weight of human history
9. a font without family, without ancestry
10. a Marshall McLuhan font that stubbornly persists in bidding farewell to itself
11. a font that takes advantage of all that promised "processing power"
12. a font that does something other than sit on its ass in a digital museum
13. a font with the capacity to breed with other fonts
14. a recombinant font — every letterform the unruly child of a predictable but random process
15. a font that sounds as good as it looks
16. a font that writes its own script
17. a font that thickens the plot
18. a font that responds and reacts to the meaning it carries and conveys
19. a font that assumes the intelligence of its reader
20. a font that might sense your level of agitation, fear, or aggression
21. a font prone to sudden outbursts and tantrums
22. a font that exceeds the typographic genre
23. a font whose parents are Father Time and the Mother of Invention
24. an ambient font, a font without qualities
25. an everyday font, a font of common sense

1. a font that slows the pace of reading for the difficult passages (and skips along through easy bits)
2. a font that writes between the lines
3. a font that refuses to utter imperatives or commands
4. a karaoke font, a lip-synching font, a font without a voice of its own
5. a font that listens while it speaks
6. a font that toggles effortlessly between languages
7. a font for speaking in tongues
8. a font that speaks in dialects
9. a metropolitan font for uptown, the ghetto, and suburbia alike
10. a font that simultaneously translates
11. a font that sings the plaintive songs of lonely whales
12. a font that grows
13. a font that learns
14. an evolutionary font
15. an entropic font
16. a "live" font
17. a promiscuous font, a font that fucks fonts, a font-fucking-font
18. a font that emerges, unfolds, performs, evolves, and passes away
19. a font of youth
20. twin fonts, identical but distinct
21. a generative font that renders itself according to behavioral tendencies
22. a font that is something other than a recording
23. a font that is different every time you "play" it
24. a font with the metabolism of a fly
25. a font with a demographic algorithm that projects itself onto you, the average reader

311

LIFE STYLE

Book, 2000

Designer and author: Bruce Mau

Publisher: Phaidon

Photograph: Dan Meyers

In this post-industrial manifesto, graphic designer Bruce Mau imagines a typeface that comes alive with simulated intelligence.



Some elements may extend slightly above the cap height.

CAP HEIGHT

is the distance from the baseline to the top of capital letter. The cap height of a typeface determines its point size.

skin, Bones

X-HEIGHT is the height of the main body of the lowercase letter (or the height of a lowercase x), excluding its ascenders and descenders.

THE BASELINE is where all the letters sit. This is the most stable axis along a line of text, and it is a crucial edge for aligning text with images or with other text.

The curves at the bottom of letters such as o or e hang slightly below the baseline. Commas and semicolons also cross the baseline. If a typeface were not positioned this way, it would appear to teeter precariously, lacking a sense of physical grounding.

body

Although kids learn to write using ruled paper that divides letters exactly in half, most typefaces are not designed that way. The x-height usually occupies slightly more than half of the cap height. The bigger the x-height is in relation to the cap height, the bigger the letters will look. In a field of text, the greatest density occurs between the baseline and the top of the x-height.

Hey, look!
They supersized
my x-height.

Two blocks of text are often aligned along a shared baseline. Here, 14/18 Scala (14-pt. type with 18 pts of line spacing) is paired with 7/9 Scala.

12 points
equal 1 pica

6 picas
(72 points)
equal 1 inch

**60-POINT SCALE**

A typeface is measured from the top of the capital letter to the bottom of the lowest descender, plus a small buffer space.



In metal type, the point size is the height of the type slug.

WIDE LOAD**INTERSTATE BLACK**

The set width is the body of the letter plus the space beside it.

TIGHT WAD**INTERSTATE BLACK COMPRESSED**

The letters in the condensed version of the typeface have a narrower set width.

WIDE LOAD**TIGHT WAD****TYPE CRIME:****HORIZONTAL & VERTICAL SCALING**

The proportions of the letters have been digitally distorted in order to create wider or narrower letters.

HEIGHT Attempts to standardize the measurement of type began in the eighteenth century. The *point system*, used to measure the height of a letter as well as the distance between lines (*leading*), is the standard used today. One *point* equals 1/72 inch or .35 millimeters. Twelve points equal one *pica*, the unit commonly used to measure column widths.

Typography also can be measured in inches, millimeters, or pixels. Most software applications let the designer choose a preferred unit of measure; picas and points are a standard default.

ABBREVIATING PICAS AND POINTS

8 picas = 8p

8 points = p8, 8 pts

8 picas, 4 points = 8p4

8-point Helvetica with 9 points of line spacing = 8/9 Helvetica

WIDTH A letter also has a horizontal measure, called its *set width*. The set width is the body of the letter plus a sliver of space that protects it from other letters. The width of a letter is intrinsic to the proportion of the typeface. Some typefaces have a narrow set width, and some have a wide one.

You can change the set width of a typeface by fiddling with its horizontal or vertical scale. This distorts the proportion of the letters, forcing heavy elements to become thin, and thin elements to become thick. Instead of torturing a letterform, choose a typeface with the proportions you need, such as condensed, compressed, or extended.

32-PT SCALA

32-PT INTERSTATE REGULAR

32-PT BODONI

32-PT MRS EAVES

Do I look fat in this paragraph?

These letters are all the same point size, but they have different x-heights, line weights, and proportions.

When two typefaces are set in the same point size, one often looks bigger than the other. Differences in x-height, line weight, and character width affect the letters' apparent scale.

Mrs Eaves, designed by Zuzana Licko in 1996, rejects the twentieth-century appetite for supersized x-heights. The font, inspired by the eighteenth-century designs of John Baskerville, is named after Sarah Eaves, Baskerville's mistress, housekeeper, and collaborator. The couple lived together for sixteen years before marrying in 1764.

nice x-height

48-PT HELVETICA

48-PT MRS EAVES

Bigger x-heights, introduced in the twentieth century, make fonts look larger by maximizing the area within the overall point size.

Every typeface wants to know, "Do I look fat in this paragraph?" It's all a matter of context. A font could look perfectly sleek on screen, yet appear bulky and out of shape in print. Some typefaces are drawn with heavier lines than others, or they have taller x-heights. Helvetica isn't fat. She has big bones.

9/12 HELVETICA

Every typeface wants to know, "Do I look fat in this paragraph?" It's all a matter of context. A font could look perfectly sleek on screen, yet appear bulky and out of shape in print.

12/14 HELVETICA

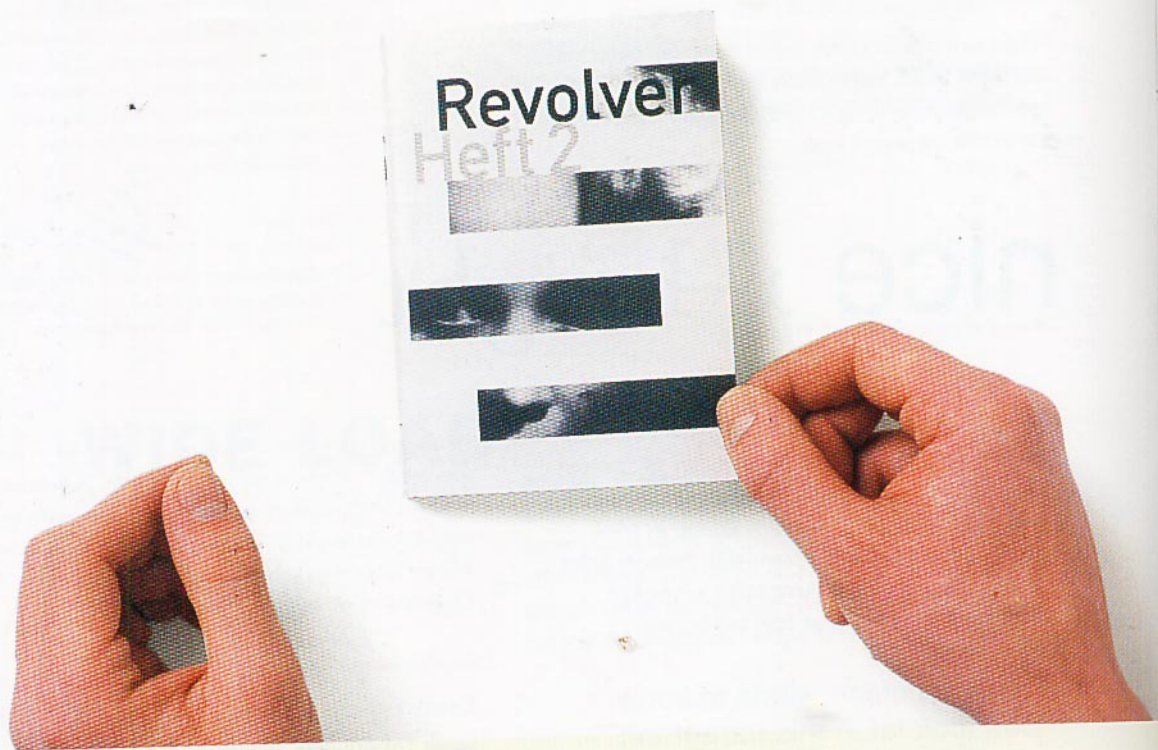
Every typeface wants to know, "Do I look fat in this paragraph?" It's all a matter of context. A font could look perfectly sleek on screen, yet appear bulky and out of shape in print. Some typefaces are drawn with heavier lines than others or have taller x-heights. Mrs Eaves has a low waist and a small body.

9/12 MRS EAVES

Every typeface wants to know: "Do I look fat in this paragraph?" It's all a matter of context. A font could look perfectly sleek on screen, yet appear bulky and out of shape in print. Mrs. Eaves has a low waist and a small body.

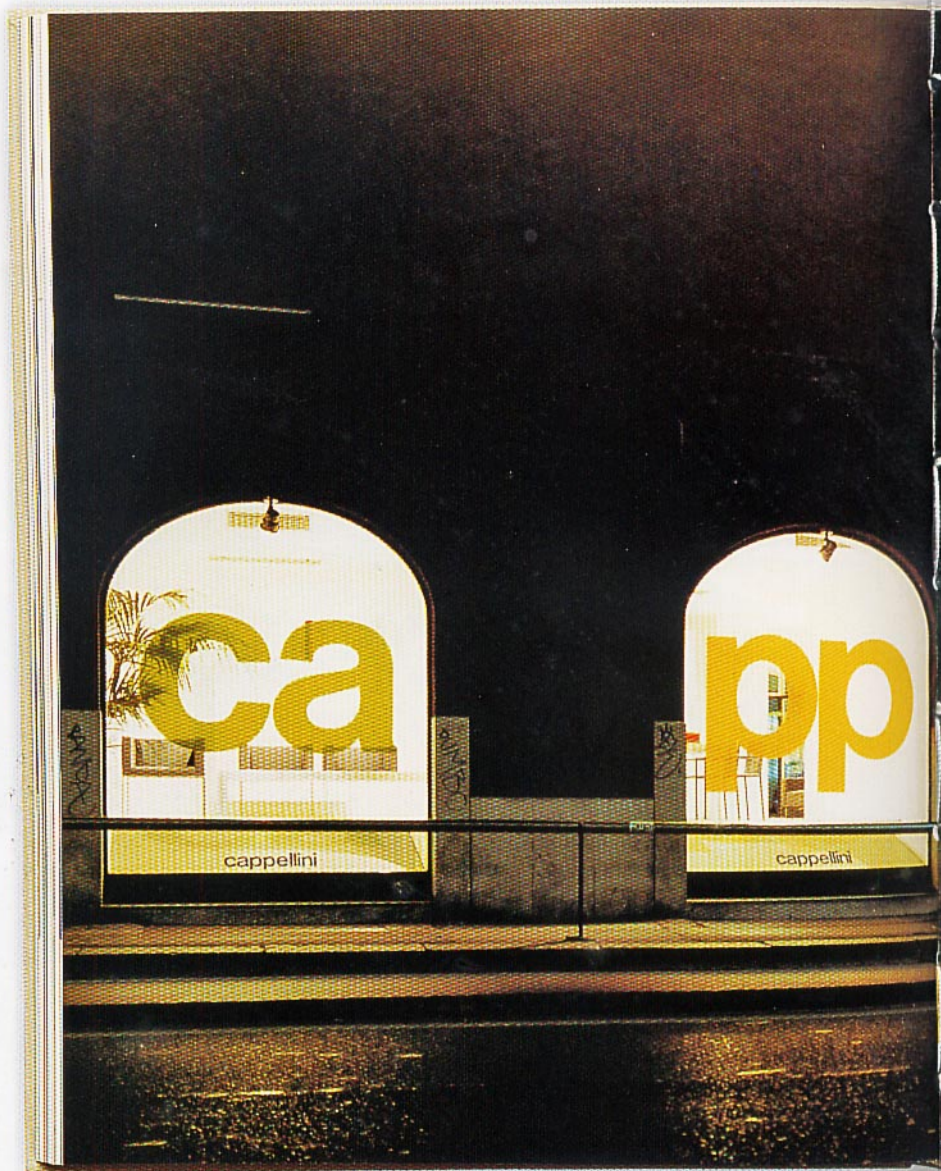
12/14 MRS EAVES

The default type size in many software applications is 12 pts. Although this generally creates readable type on screen displays, 12-pt text type usually looks big and horsey on a printed page. (12 pts is a good size for children's books.) Sizes between 9 and 11 pts are common for printed text. This caption is 7.5 pts.





REVOLVER:
ZEITSCHRIFT FÜR FILM
(MAGAZINE FOR FILM)
Magazine, 1998–2003
Designer: Gerwin Schmidt
*This magazine is created by and
for film directors. The contrast
between the big type and the small
pages creates drama and surprise.*





JASPER MORRISON:
EVERYTHING BUT THE WALLS
Book, 2002
Book designers: Jasper
Morrison, Lars Müller,
Matilda Plöjel
Publisher: Lars Müller
Cappellini store windows
designed by Jasper Morrison
Photograph: Dan Meyers
*Typography is realized at an
urban scale in this storefront
created by the industrial designer
Jasper Morrison. The existing
architecture determines the size
and pacing of the monumental
letters.*

SABON

Aa

HUMANIST OR OLD STYLE

The roman typefaces of the fifteenth and sixteenth centuries emulated classical calligraphy. Sabon was designed by Jan Tschichold in 1966, based on the sixteenth-century typefaces of Claude Garamond.

BASKERVILLE

Aa

TRANSITIONAL

These typefaces have sharper serifs and a more vertical axis than humanist letters. When the fonts of John Baskerville were introduced in the mid-eighteenth century, their sharp forms and high contrast were considered shocking.

BODONI

Aa

MODERN

The typefaces designed by Giambattista Bodoni in the late eighteenth and early nineteenth centuries are radically abstract. Note the thin, straight serifs; vertical axis; and sharp contrast from thick to thin strokes.

TYPE CLASSIFICATION A basic system for classifying typefaces was devised in the nineteenth century, when printers sought to identify a heritage for their own craft analogous to that of art history. *Humanist* letterforms are closely connected to calligraphy and the movement of the hand. *Transitional* and *modern* typefaces are more abstract and less organic. These three main groups correspond roughly to the Renaissance, Baroque, and Enlightenment periods in art and literature. Historians and critics of typography have since proposed more finely grained schemes that attempt to better capture the diversity of letterforms. Designers in the twentieth and twenty-first centuries have continued to create new typefaces based on historic characteristics.

CLARENDON

Aa

EGYPTIAN OR SLAB SERIF

Numerous bold and decorative typefaces were introduced in the nineteenth century for use in advertising. Egyptian fonts have heavy, slablike serifs.

GILL SANS

Aa

HUMANIST SANS SERIF

Sans-serif typefaces became common in the twentieth century. Gill Sans, designed by Eric Gill in 1928, has humanist characteristics. Note the small, tilting counter in the letter a, and the calligraphic variations in line weight.

HELVETICA

Aa

TRANSITIONAL SANS SERIF

Helvetica, designed by Max Miedinger in 1957, is one of the world's most widely used typefaces. Its uniform, upright character makes it similar to transitional serif letters. These fonts are also referred to as "anonymous sans serif."

FUTURA

Aa

GEOMETRIC SANS SERIF

Some sans-serif types are built around geometric forms. In Futura, designed by Paul Renner in 1927, the Os are perfect circles, and the peaks of the A and M are sharp triangles.

Sabon

14-PT SABON

This is not a book about fonts. It is a book about how to use them. Typefaces are essential resources for the graphic designer, just as glass, stone, steel, and other materials are employed by the architect.

9/12 SABON

Selecting type with wit and wisdom requires knowledge of how and why letterforms evolved.

7/9

Baskerville

14-PT BASKERVILLE

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9/12 BASKERVILLE

Selecting type with wit and wisdom requires knowledge of how and why letterforms evolved.

7/9

Bodoni

14-PT BODONI

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9.5/12 BODONI BOOK

Selecting type with wit and wisdom requires knowledge of how and why letterforms evolved.

7.5/9

Clarendon

14-PT CLARENDON

LIGHT

This is not a book about fonts. It is a book about how to use them. Typefaces are essential resources for the graphic designer, just as glass, stone, steel, and other materials are employed by the architect.

8/12 CLARENDON LIGHT

Selecting type with wit and wisdom requires knowledge of how and why letterforms evolved.

6/9

Gill Sans

14-PT GILL SANS

This is not a book about fonts. It is a book about how to use them. Typefaces are essential resources for the graphic designer, just as glass, stone, steel, and other materials are employed by the architect.

9/12 GILL SANS REGULAR

Selecting type with wit and wisdom requires knowledge of how and why letterforms evolved.

7/9

Helvetica

14-PT HELVETICA

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8/12 HELVETICA REGULAR

Selecting type with wit and wisdom requires knowledge of how and why letterforms evolved.

6/9

Futura

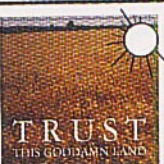
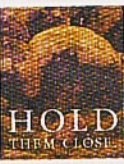

14-PT FUTURA

This is not a book about fonts. It is a book about how to use them. Typefaces are essential resources for the graphic designer, just as glass, stone, steel, and other materials are employed by the architect.

8.5/12 FUTURA BOOK

Selecting type with wit and wisdom requires knowledge of how and why letterforms evolved.

6.5/9

| | | | | | |
|---|----------------------|---|--|---|-----------|
| THANKFUL | <h1>MCSWEENEY'S</h1> | | | | EMPOWERED |
| FULL TO BURSTING! FULL TO BURSTING! FULL! BLOOD OF US ALL! | | | | | |
| & TROT-BLOODED | | PERPETUAL | | & | |
| <h2>THE PRESUMPTION OF GOOD WILL</h2> | | | | | |
| LIFE-SAVING | | NO. 9 | | IRRATIONAL (OR MORE LIKELY, IRREDUCIBLY RATIONAL) | |
| DOUG DORST <small>Good Last The burden of being colorful is mine</small> | | GABE HUDSON <small>Wanted? The greater of little Here it be?</small> | | NATHANIEL MINTON <small>Being here About here Answer Most Experience</small> | |
| JEFF GREENWALD <small>Conduct in other words is words. This is the truth.</small> | | DENIS JOHNSON <small>Thirteen The center of a new vision For a time</small> | | ELLEN MOORE <small>Learning to read, a 10th grade student in the front row here.</small> | |
| A. M. HOMES <small>A new creation with A slight case of heartache</small> | | ROY KESEY <small>The foundation of justice of man Rules?</small> | | VAL VINOKUROV <small>Business looking Business looking Business looking</small> | |
| PROMPTLY | | K. KVASHAY-BOYLE <small>Flashes Watches The responsibility of education</small> | | WITH GUSTO | |
|  <p>TRUST THIS GODDAMN LAND</p> | | <p>TAKE: <i>your aggression.</i> QUESTION: <i>your aggression.</i> REMOVE IT: <i>from the company of others.</i> WALK WITH IT: <i>to a faraway place.</i> ALONE? <i>Yes, alone.</i> LEAVE IT: <i>under a great wide sky, exposed, apart.</i> DO NOT: <i>bury it.</i> DO NOT: <i>live with it.</i> NEVER: <i>in your home.</i> NOT: <i>in your life.</i> IT IS: <i>viral.</i> IT GROWS: <i>like a shadow.</i> WE MUST: <i>carry it away.</i></p> | |  <p>HOLD THEM CLOSE</p> | |
| KNOW THEM. | | CANNOT. | | REMEMBERING! | |
| KNOW THEM. | | WILL NOT. | | WRAP YOUR ARMS! <small>TINY AND WEAK & RUBBERY ATROPHYYING BUT YOURS</small> | |
| THEY CAN TALK! THEY CAN TALK! | | CANNOT. | | REMEMBERING! | |
| CARRY IT. CARRY THEM. | | WILL NOT. | | YOU MUST — | |
| KEEP IT SWEET. | | CANNOT. | | REMEMBERING! | |
| DO NO HARM. | | WILL NOT. | | MORE FOR YOUR SAKE THAN THEIRS | |
| And yet: | | CANNOT. | | REMEMBERING! | |
| HARM IS HARM IS HARM | | LIVE THAT WAY AGAIN | | REMEMBERING! | |
| YOUR HARM IS OUR HARM. | | LIVE THAT WAY AGAIN | | REMEMBERING! | |
| <h1>EFFLORESCENCE</h1> | | | | | |
| BLOOMING (OR RASH) | | THE HIGHEST POINT, OR SOMETHING THAT ITCHES! | | HE IS GONE! | |
| GEG | | Do you sense it? | | Do you sense it? | |
| ENSCH | | \$15.00 U.S. \$22 CANADA | | LATE SUMMER | |
| HEIN | | ISBN 0-9719047-5-8 | | EARLY FALL | |
| HEIN | | 9 780971 904750 | | 2002 | |
| HEIN | | 90000 | | WE WILL | |
| HEIN | | 90000 | | DO FOUR THIS YEAR | |
| HEIN | | 90000 | |  <p>FRIDAY</p> | |

MCSWEENEY'S Magazine cover, 2002
 Designer and editor: Dave Eggers
 This magazine cover uses the Garamond 3 typeface family in various sizes. Although the typeface is classical and conservative, the obsessive, slightly deranged layout is distinctly contemporary.

Adobe Garamond was designed by Robert Slimbach in 1988.

The idea of organizing typefaces into matched families dates back to the sixteenth century, when printers began coordinating roman and italic faces. The concept was formalized at the turn of the twentieth century.

The roman font is the core or spine from which a family of typefaces derives.

ADOBE GARAMOND REGULAR

The roman form, also called "plain" or "regular," is the standard, upright version of a typeface. It is typically conceived as the parent of a larger family.

Italic fonts, which are based on cursive writing, have forms distinct from roman.

ADOBE GARAMOND ITALIC

The italic form is not simply a mechanically slanted version of the roman; it is a separate typeface. Note that the letter a has a different shape in the roman and italic variants of Adobe Garamond.

SMALL CAPS HAVE A HEIGHT THAT IS SIMILAR TO *the lowercase* X-HEIGHT.

ADOBE GARAMOND EXPERT (SMALL CAPS)

Small caps (capitals) are designed to integrate with a line of text, where full-size capitals would stand out awkwardly. Small capitals are slightly taller than the x-height of lowercase letters.

Bold (and semibold) typefaces are used for emphasis within a hierarchy.

ADOBE GARAMOND BOLD AND SEMIBOLD

Bold versions of traditional text fonts were added in the twentieth century to meet the need for emphatic forms. Sans-serif families often include a broad range of weights (thin, bold, black, etc.).

Bold (and semibold) typefaces each need to include an italic version, too.

ADOBE GARAMOND BOLD AND SEMIBOLD ITALIC

The typeface designer tries to make the bold versions feel similar in contrast to the roman, without making the overall form too heavy. The counters need to stay clear and open at small sizes.

A full type family has two sets of numerals: *lining* (123) and *non-lining* (123).

ADOBE GARAMOND REGULAR AND EXPERT NUMERALS

Lining numerals occupy uniform units of horizontal space, so that the numbers line up when used in tabulated columns. Non-lining numerals, also called "text" or "old style" numerals, have a small body size plus ascenders and descenders, so that they mix well on a line with lowercase letters.

A *type family* CAN BE faked by *slanting*, or **inflating**, or SHRINKING letters.

ITALIC

BOLD

SMALL CAPS

TYPE CRIME:

PSEUDO ITALICS

The wide, ungainly forms of these skewed letters look forced and unnatural.

TYPE CRIME:

PSEUDO BOLD

Padded around the edges, these letters feel blunt and dull.

TYPE CRIME:

PSEUDO SMALL CAPS

These shrunken versions of full-size caps are puny and starved.

THESIS FAMILY

*Designed by Lucas de Groot, LucasFonts, 1994
This is one of the world's largest type families.*

This is not a book about fonts. It is a book about how to use them. Typefaces

THESIS SERIF MEDIUM ROMAN

are essential resources for the graphic designer, just as glass, stone, steel, and

THESIS SERIF MEDIUM ITALIC

OTHER MATERIALS ARE EMPLOYED BY THE ARCHITECT. SOME DESIGNERS CREATE

THESIS SERIF MEDIUM SMALL CAPS

their own custom fonts. But most

THESIS SERIF BLACK ROMAN

graphic designers will tap the vast

THESIS SERIF EXTRA BOLD ROMAN

store of already existing typefaces,

THESIS SERIF BOLD ROMAN

choosing and combining each with

THESIS SERIF SEMI BOLD ROMAN

regard to the audience or situation.

THESIS SERIF MEDIUM ROMAN

Selecting type with wit and wisdom

THESIS SERIF SEMI LIGHT

requires knowledge of how and why

THESIS SERIF LIGHT ROMAN

letterforms have evolved. The history

THESIS SERIF EXTRA LIGHT ROMAN

of typography reflects a continual tension between the hand and machine, the

THESIS SANS MEDIUM ROMAN

organic and geometric, the human body and the abstract system. These tensions

THESIS SANS MEDIUM ITALIC

MARKED THE BIRTH OF PRINTED LETTERS FIVE CENTURIES AGO, AND THEY CONTINUE TO

THESIS SANS MEDIUM SMALL CAPS

energize typography today. Writing

THESIS SANS BLACK ROMAN

in the West was revolutionized early

THESIS SANS EXTRA BOLD ROMAN

in the Renaissance, when Johannes

THESIS SANS BOLD ROMAN

Gutenberg introduced moveable type

THESIS SANS SEMI BOLD ROMAN

in Germany. Whereas documents and

THESIS SANS MEDIUM ROMAN

books had previously been written by

THESIS SANS SEMI LIGHT ROMAN

hand, printing with type mobilized all

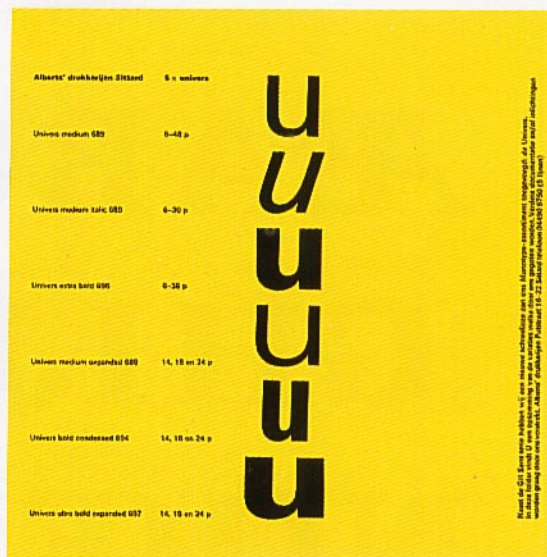
THESIS SANS LIGHT ROMAN

of the techniques of mass production.

THESIS SANS EXTRA LIGHT ROMAN

Interstate Light
 Interstate Light Compressed
 Interstate Light Condensed
 Interstate Regular
 Interstate Regular Compressed
 Interstate Regular Condensed
Interstate Bold
 Interstate Bold Compressed
 Interstate Bold Condensed
Interstate Black
 Interstate Black Compressed
Interstate Black Condensed

Designed by Tobias Frere-Jones, Font Bureau, 1993



UNIVERS was designed by the Swiss typographer Adrian Frutiger in 1957. He designed 21 versions of Univers, in five weights and five widths. Whereas many typographic families grow over time as they become popular, Univers was conceived as a total system from its inception.

n n n p p p

Scala

Scala Italic

SCALA CAPS

Scala Bold

Martin Majoor's *Scala*, used throughout this book, began as a serif typeface. Majoor later added a sans-serif sub-family as well as an ornamental "jewel" set. Majoor's diagram above shows how the serif and sans-serif forms have a common spine.

Scala Sans

Scala Sans Italic

SCALA SANS CAPS

Scala Sans Bold

Scala Sans Bold

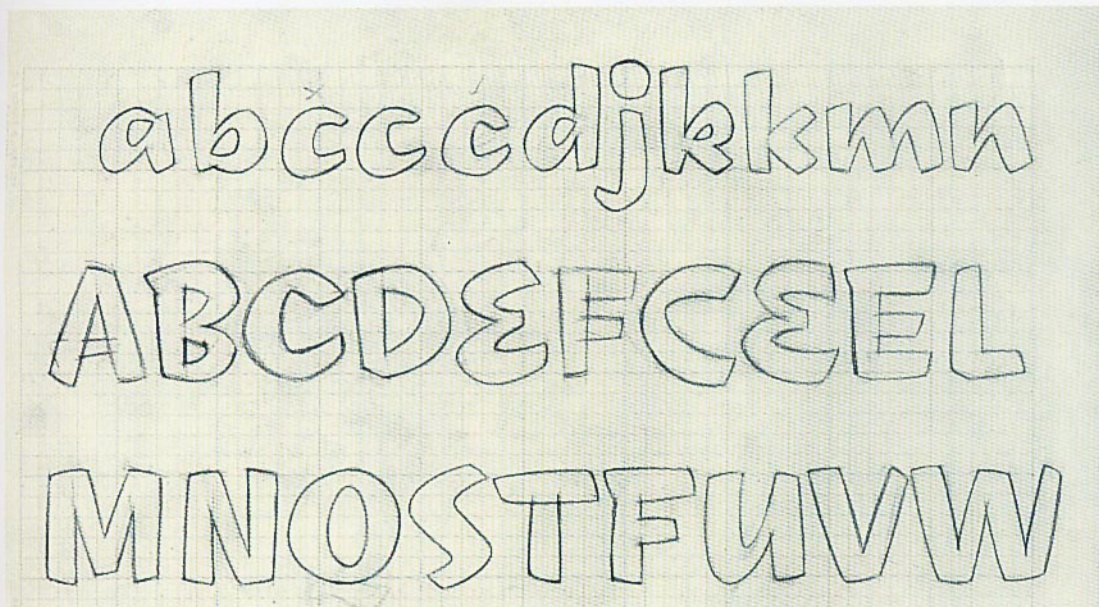
SCALA JEWEL CRYSTAL

SCALA JEWEL DIAMOND

SCALA JEWEL PEARL

SCALA JEWEL SAPHYR

A traditional roman book face typically has a small family—a "nuclear" group consisting of roman, italic, small caps, and possibly bold and semibold (each with an italic variant). Sans-serif families often come in many more weights and sizes, such as thin, light, black, compressed, and condensed. In the 1990s, many type designers created families that include both serif and sans-serif versions. Small capitals and non-lining numerals (a courtesy traditionally reserved for serif fonts) are included in the sans-serif versions of Thesis, Scala, and many other big contemporary families.



Castaways

LAS VEGAS: CASTAWAYS

Drawing and finished type, 2001

Art and type direction: Andy Cruz

Typeface design: Ken Barber

Font engineering: Rich Roat

House Industries

Castaways is from a series of digital fonts based on commercial signs in Las Vegas. The original signs were created by lettering artists who worked by hand to make custom graphics and logos. House Industries is a digital type foundry that creates typefaces inspired by popular culture and design history. Designer Ken Barber makes pencil drawings by hand and then digitizes the outlines.

For more than five hundred years, typeface production was an industrial process. Most type was cast from lead until the rise of photo typesetting in the 1960s and 1970s; early digital typefaces (also created in that period) still required specialized equipment for design and production. It was not until the introduction of desktop computers that typeface design became a widely accessible field. By the end of the twentieth century, digital “type foundries” had appeared around the globe, often run by one or two designers.

Producing a complete typeface remains, however, an enormous task. Even a relatively small type family has hundreds of distinct characters, each requiring many phases of refinement. The typeface designer must also determine how a font is to be spaced, what software platforms it will use, and how it will function in different sizes, media, and languages.



THE LOCUST (LEFT) AND
MELT BANANA (RIGHT)
Screenprint posters, 2002
Designer: Nolen Strals
*Not all letters are typographic.
Hand lettering remains a
vibrant force in graphic design,
as seen in these posters
for Baltimore music events.
Hand lettering is also the basis
of many digital typefaces, but
there is nothing quite as potent
as the real thing.*

Photo: www.robstock.com

Poster designed and written by Nolen Strals, nolenstrals.com

MONOZINE PRESENTS

MELT BANANA
STARTS
OF THE DOGON
AND DOUBLE
DAGGER
ST TO
BAR



めると
はなま

すたず
あふ
とこ

いあず

すたず
あふ
とこ

YOU DON'T LOVE ME YOU JUST LOVE MY DOGS STUFF

TICKETS: MISSIONMEDIA.NET
WWW.MONOZINE.COM

PHOTO: HOLLEN STRELS - FLASHUP PICTURES NATIONAL.COM

Johannes Hübner



Hübner

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Funktechnik

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mail@johannes-huebner.de

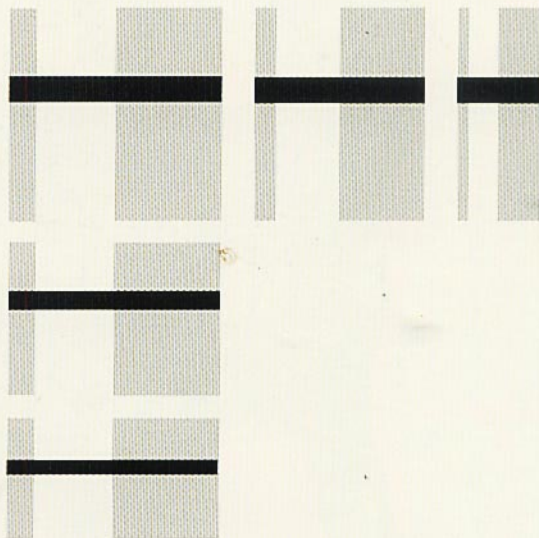
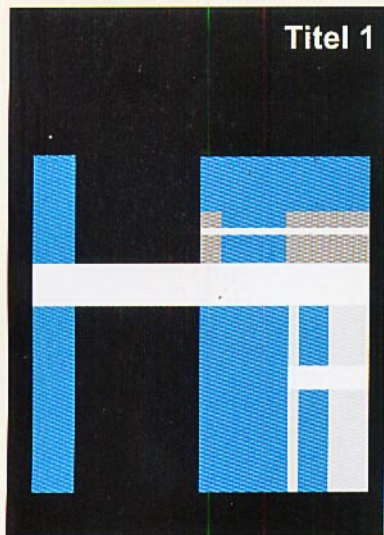
HÜBNER

Identity program, 1998

Designer: Jochen Stankowski

*This identity for an engineering firm
uses the letter H as a trademark.*

*The proportions of the mark change
in different contexts.*



LOGOTYPES use typography or lettering to depict the name of an organization in a memorable way. Whereas some trademarks consist of an abstract symbol or a pictorial icon, a *logotype* uses letters to create a distinctive visual image.

Logotypes can be built with existing fonts or with custom-drawn letterforms. Modern logotypes are often designed in different versions for use in different situations. A logotype is part of an overall identity program, which the designer conceives as a “language” that lives (and changes) in various circumstances.



RACHEL COMEY
Logotypes, 2003
Designer: Anton Ginzburg
These logotypes for a fashion designer use traditional letterforms in a contemporary manner. Writing the designer's name in lowercase letters softens the formality of the classic script characters, while the capital letter M in “coMey” injects the name with an element of surprise.

the **noguchi** museum

THE NOGUCHI MUSEUM

Logotype, 2004

Designers: Abbott Miller and
Jeremy Hoffman, Pentagram

The sides of a square have been gently contoured in reference to the work of Isamu Noguchi, namesake of the Noguchi Museum. The concave square coordinates with the typeface Balance, used in the logotype, which also has softly curved elements.

Bitmap fonts are designed for digital display.

Bitmap fonts are designed for digital display at a specific size.

Bitmap fonts are designed for digital display.

Bitmap fonts are designed for digital display.

Bitmap fonts are designed for digital display at a specific size.

Bitmap fonts are designed for digital display at a specific size.

LO-RES FAMILY Designed by Zuzana Licko for Emigre, 1985

These bitmap fonts incorporate Licko's earlier Emigre, Emperor, Oakland, and Universal font families.

Bitmap fonts are designed for digital display at a specific size.

Bitmap fonts are designed for digital display at specific size.

Bitmap fonts are designed for digital display at specific size.

Bitmap fonts are designed for digital display at a specific size.

8-POT PIXELLA REGULAR, ITALIC, BOLD, AND BOLD ITALIC

Designed by Chester for Thirstype, 2003

Bitmap fonts are designed for digital display at a specific size.

Bitmap fonts are designed for digital display at a specific size.

Bitmap fonts are designed for digital display at a specific size.

Bitmap fonts are designed for digital display at a specific size.

Bitmap fonts are designed for digital display at a specific size.

Bitmap fonts are designed for digital display at a specific size.

Bitmap fonts are designed for digital display at a specific size.

8-PT FFF CORPORATE Designed by Walter Apai for Fonts for Flash, 2003

These fonts are designed specifically to work with the Macromedia Flash multimedia authoring application.

BITMAP FONTS are built out of the *pixels* (picture elements) that structure a screen display. Whereas a PostScript letter consists of a vectorized outline, a bitmap character contains a fixed number of rectilinear units that are either "on" or "off."

Outline fonts are *scalable*, meaning that they can be reproduced in a high-resolution medium such as print at nearly any size. Outline fonts are often hard to read on screen at small sizes, however, where all characters are translated into pixels. (Anti-aliasing can make legibility even worse for small text.) In a bitmap font, the pixels do not melt away as the letters get bigger. Some designers like to exploit this effect, which calls attention to the letters' digital geometry. Pixel fonts are widely used in both print and digital media.

8 px Corporate

16 px Corporate

24 px Corporate

32 px Corporate

A bitmap font is designed to be used at a specific size, such as 8 pixels, because its body is precisely constructed out of screen units. A bitmap font should be displayed on screen in even multiples of its root size (enlarge 8-px type to 16, 24, 32, and so on).

BOEKHANDEL NIJHOF & LEE
STAALSTRAAT 13-A
1011 JK AMSTERDAM

22/05/03 13:12 01
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| | |
|--------------|--------|
| VERZENDKOST. | 42.50 |
| TYPOGRAFIE | 6.00 |
| TYPOGRAFIE | 16.50 |
| TYPOGRAFIE | 19.50 |
| TYPOGRAFIE | 33.95 |
| TYPOGRAFIE | 55.35 |
| TYPOGRAFIE | 32.00 |
| TYPOGRAFIE | 59.00 |
| TYPOGRAFIE | 40.00 |
| TYPOGRAFIE | 50.40 |
| TYPOGRAFIE | 47.25 |
| TYPOGRAFIE | 80.00 |
| TYPOGRAFIE | 37.70 |
| SUBTOTAL | 520.15 |
| BTW LAAG | 29.44 |

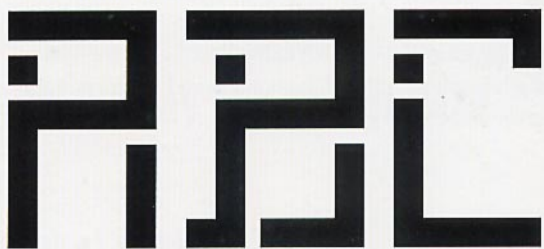
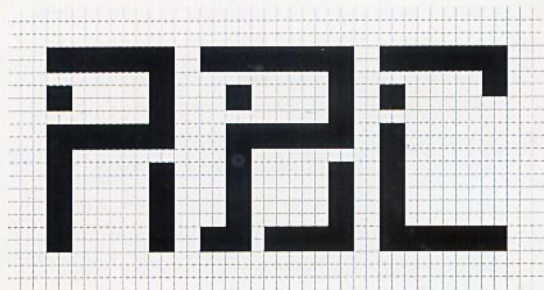
STUKS 130
CREDIT 520.15

BOEK ANTIQUARIAAT
TEL: 020-6203980
FAX: 020-6393294

NIJHOF & LEE
Receipt, 2003
This cash register receipt, printed with a bitmap font, is from a design and typography bookstore in Amsterdam. (The author is still in debt from this transaction.)

Create a prototype for a bitmap font by designing letters on a grid of squares. Substitute the curves and diagonals of traditional letterforms with rectilinear elements. Avoid making detailed “staircases,” which are just curves and diagonals in disguise. This exercise looks back to the 1910s and 1920s, when avant-garde designers made experimental typefaces out of simple geometric parts. The project also reflects the structure of digital technologies, from cash register receipts and LED signs to on-screen font display, showing how a typeface functions as a system of elements.

*Examples of student work from
Maryland Institute College of Art*



WENDY NEESE



JAMES ALVAREZ

A B C

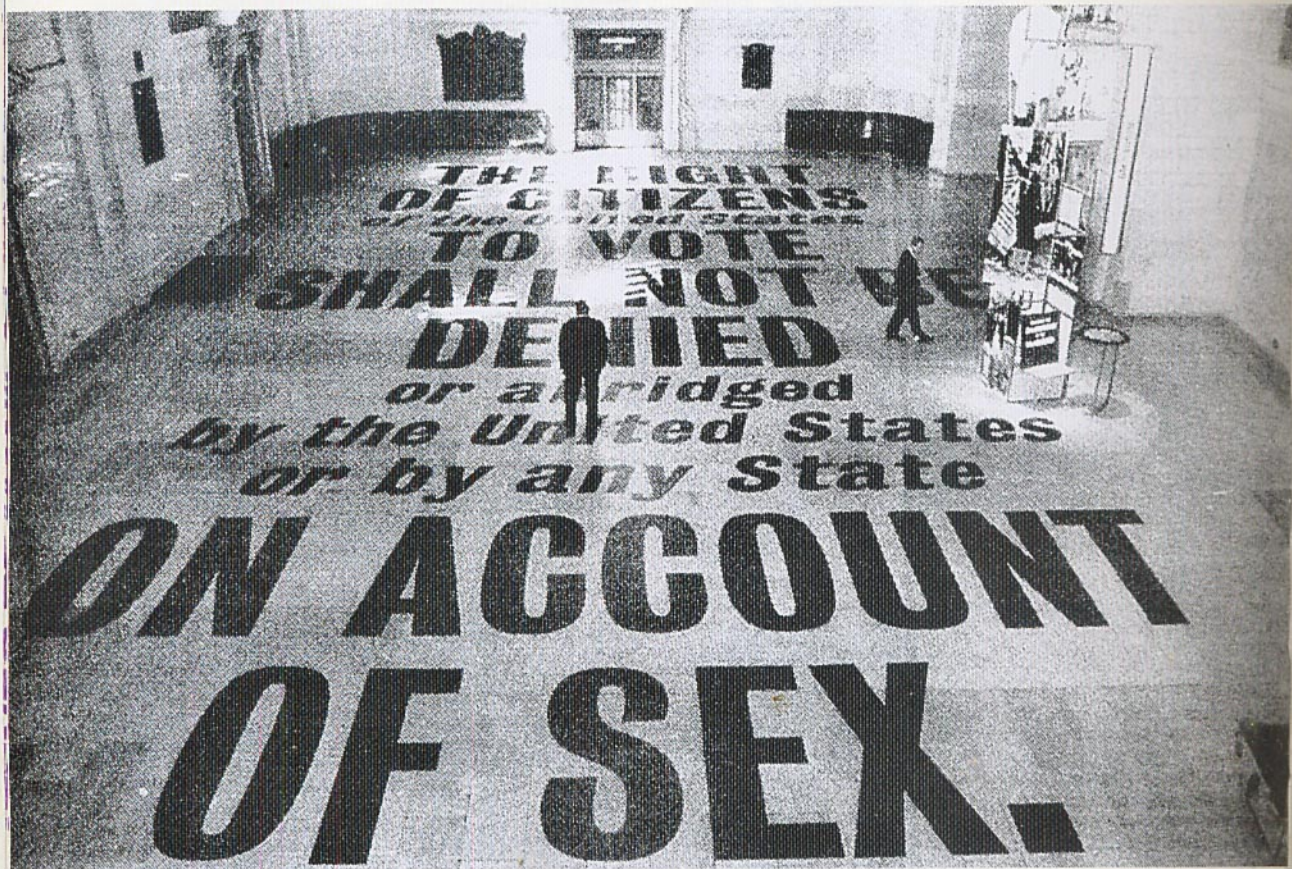
JOEY POTTS

A B C

BRUCE WILLEN

A B C

BRENDON MCCLEAN



THE XIX AMENDMENT

Typographic installation in Grand Central Station,
New York City, 1995

Designer: Stephen Doyle

Client: The New York State Division of Women

Sponsors: The New York State Division of Women,
the Metropolitan Transportation Authority, Revlon,
and Merrill Lynch

TEXT



CYBERSPACE AND CIVIL SOCIETY
LEASING SOCIETY
FEBRUARY 25, 1996
HOSTED BY CONNOR, JIM HUNT
SPEAKERS: G. DUBOIS, ANDREW J. JOHNSON, JOHN PERRY BARLOW
MODERATED BY TED LEONIS
AMERICA'S FORUM
FOR THE 21ST CENTURY
FOR INFORMATION: 755-5788

CYBERSPACE AND CIVIL SOCIETY

Poster, 1996

Designer: Hayes Henderson
Rather than represent cyberspace as an ethereal grid, the designer has used blotches of overlapping text to build an ominous, looming body.

TEXT

LETTERS GATHER INTO WORDS, WORDS BUILD INTO SENTENCES.

In typography, “text” is defined as an ongoing sequence of words, distinct from shorter headlines or captions. The main block is often called the “body,” comprising the principal mass of content. Also known as “running text,” it can flow from one page, column, or box to another. Text can be viewed as a thing—a sound and sturdy object—or a fluid poured into the containers of page or screen. Text can be solid or liquid, body or blood.

As body, text has more integrity and wholeness than the elements that surround it, from pictures, captions, and page numbers to banners, buttons, and menus. Designers generally treat a body of text consistently, letting it appear as a coherent substance that is distributed across the spaces of a document. In digital media, long texts are typically broken into chunks that can be accessed by search engines or hypertext links. Contemporary designers and writers produce content for various contexts, from the pages of print to an array of software environments, screen conditions, and digital devices, each posing its own limits and opportunities.

Designers provide ways into—and out of—the flood of words by breaking up text into pieces and offering shortcuts and alternate routes through masses of information. From a simple indent (signaling the entrance to a new idea) to a [highlighted link](#) (announcing a jump to another location), typography helps readers navigate the flow of content. The user could be searching for a specific piece of data or struggling to quickly process a volume of content in order to extract elements for immediate use. Although many books define the purpose of typography as enhancing the readability of the written word, one of design’s most humane functions is, in actuality, to help readers *avoid* reading.

PSALTER-HOURS

English, thirteenth century
Walters Ms. W.102, fol. 33v
Collection of the Walters Art
Museum, Baltimore

The monk is climbing up the
side of the page to replace a
piece of faulty text with the
corrected line in the bottom
margin.

Sicut sagitte in manu potentis: ita filii
excussorum.

Beatuſ uir qui impleuit desiderium
ſuum ex iſtis: non confundetur cum
loquetur inimicis ſuis in porta.

Beani omnes qui timent dominum:
qui ambulant in uſis eius.

Labores manuum tuarum quoniam
ducabis: beatus es ⁊ bene tibi erit.

Quoniaſ ſicut uitis habundans: in
lateribus domus tue.

Gracie ſic benedicetur homo: qui timet
dominum.

Benedicat tibi dominus ex ſyon: ut
uideas bona ieruſalem omnibus diebus
uite tue.

Et uideas filios filiorum tuorum: pacem

Quia ſuper iſrael.
Reſpugnauerunt me a iuuentute

Aſu tu ſicut nouelle oliuaz: in circuitu me
ſe tue.

ERRORS AND OWNERSHIP

Typography helped seal the literary notion of “the text” as a complete, original work, a stable body of ideas expressed in an essential form. Before the invention of printing, handwritten documents were riddled with errors. Copies were copied from copies, each with its own glitches and gaps. Scribes devised inventive ways to insert missing lines into manuscripts in order to salvage and repair these laboriously crafted objects.

Printing with movable type was the first system of mass production, replacing the hand-copied manuscript. As in other forms of mass production, the cost of setting type, insuring its correctness, and running a press drops for each unit as the size of the print run increases. Labor and capital are invested in tooling and preparing the technology, rather than in making the individual unit. The printing system allows editors and authors to correct a work as it passes from handwritten manuscript to typographic galley. “Proofs” are test copies made before final production begins. The proofreader’s craft ensures the faithfulness of the printed text to the author’s handwritten original.

Yet even the text that has passed through the castle gates of print is inconstant. Each edition of a book represents one fossil record of a text, a record that changes every time the work is translated, quoted, revised, interpreted, or taught. Since the rise of digital tools for writing and publishing, manuscript originals have all but vanished. **Electronic redlining is replacing the hieroglyphics of the editor.** On-line texts can be downloaded by users and reformatted, repurposed, and recombined.

Print helped establish the figure of the author as the owner of a text, and copyright laws were written in the early eighteenth century to protect the author’s rights to this property. The digital age is riven by battles between those who argue, on the one hand, for the fundamental liberty of data and ideas, and those who hope to protect—sometimes indefinitely—the investment made in publishing and authoring content.

A classic typographic page emphasizes the completeness and closure of a work, its authority as a finished product. Alternative design strategies in the twentieth and twenty-first centuries reflect the contested nature of authorship by revealing the openness of texts to the flow of information and the corrosiveness of history.

Marshall McLuhan,
The Gutenberg Galaxy
(Toronto: University of
Toronto Press, 1962).

On the future of
intellectual property, see
Lawrence Lessig, *Free
Culture: How Big Media
Uses Technology and the Law
to Lock Down Culture and
Control Creativity* (New
York: Penguin, 2004).

Typography tended to alter language from a means of perception and exploration to a portable commodity. Marshall McLuhan, 1962

THE TELEPHONE BOOK:
TECHNOLOGY, SCHIZOPHRENIA, ELECTRIC SPEECH
Book, 1989
Designer: Richard Eckersley
Author: Avital Ronell
Composer: Michael Jensen
Publisher: University of
Nebraska Press
Photograph: Dan Meyers
This book, a philosophical study of writing as a material technology, uses typography to emphasize the rhetorical argument of the text. This spread, for example, is fractured by typographic "rivers," spaces that connect vertically through the page. Rivers violate the even, unified texture that is a sacred goal within traditional typographic design.

"How indeed could I aim my argument at some singular destination, at one or another among you whose proper name I might for example know? And then, is knowing a proper name tantamount to knowing someone?" (MC, 2). Derrida demonstrates for his part that the most general structure of the mark participates in a speech destined in advance to addressees (*destinataires*) who are not easily determinable or who, as far as any possible calculation is concerned, in any case command a great reserve of indetermination. This involves a language operating as a system of marks: "Language, however, is only one among those systems of marks that claim this curious tendency as their property: they *simultaneously* incline towards increasing the reserves of random indetermination *as well as* the capacity for coding and over-coding or, in other words, for control and self-regulation" (MC, 2). We begin to discern how the simultaneity of determining, coding, and even supercoding forms a deep cooperation with the inclination in language toward anticoding, or what Derrida sees as the inflated reserves of random indeterminateness. This double-edged coding, we must remember, regards, as it were, nonschizophrenic language, if such a thing there be. "Such competition between randomness and code disrupts the very systematicity of the system while it also, however, regulates the restless, unstable interplay of the system. Whatever its singularity in this respect, the linguistic system of these traces or marks would merely be, it seems to me, just a particular example of the law of destabilization" (MC, 2). It may be useful to note that Derrida understands language in terms primarily of traces and marks, where Laing concerns signs in the first place, and in particular the broken rapport of that which is signifying to what ostensibly lies hidden behind it, or the disconnection between signs and signs or signs and referents. Laing is led to assume the latency of a single, unique, localizable but timid presence—rather than trace or residual mark—from where it could be securely determined who speaks, and to whom. This all too brief excursion into "My Chances," which may unwittingly reproduce the effect and trauma of a chance encounter, means to engage a dialogue between the question of address raised by Laing and the ones raised in turn by Derrida. For it now appears that Laing places his bets on the sustained systematicity of the system which Derrida shows always already to fall under a law of destabilization.⁸⁹ Moreover, Derrida does not suggest lan-

guage to be
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whose destination
the case with their
muteness was
guage were
release-controls
structurally mar
ratus. The Other
fully retrievable
is there to be given,
agement begins with
or alive, traversing
forz slashing into the
as self or Other
telephone to raise
the telephone speaks
sound waves: "she'
tem as though it was
be hallucinated" (DS,
"Anything she wanted
one time. Reality did
or fear. Every wish
and every dread
tom way. Thus
203). He reads the
The case history
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SPACING

Design is as much an act of spacing as an act of marking. The typographer's art concerns not only the positive grain of letterforms, but the negative gaps between and around them. In letterpress printing, every space is constructed by a physical object, a blank piece of metal or wood with no raised image. The faceless slugs of lead and slivers of copper inserted as spaces between words or letters are as physical as the relief characters around them. Thin strips of lead (called "leading") divide the horizontal lines of type; wider blocks of "furniture" hold the margins of the page.

Although we take the breaks between words for granted, spoken language is perceived as a continuous flow, with no audible gaps. Spacing has become crucial, however, to alphabetic writing, which translates the sounds of speech into multiple characters. Spaces were introduced after the invention of the Greek alphabet to make words intelligible as distinct units. Try reading a line of text without spacing to see how important it has become.

With the invention of typography, spacing and punctuation ossified from gap and gesture to physical artifact. Punctuation marks, which were used differently from one scribe to another in the manuscript era, became part of the standardized, rule-bound apparatus of the printed page. The communications scholar Walter Ong has shown how printing converted the word into a visual object precisely located in space: "Alphabet letterpress

printing, in which each letter was cast on a separate piece of metal, or type, marked a psychological breakthrough of the first order....Print situates words in space more relentlessly than writing ever did. Writing moves words from the sound world to the world of visual space, but print locks words into position in this space." Typography made text into a thing, a material object with known dimensions and fixed locations.

Walter Ong, *Orality and Literacy: The Technologizing of the Word* (London and New York: Methuen, 1981). See also Jacques Derrida, *Of Grammatology*, trans. Gayatri Chakravorty Spivak (Baltimore: Johns Hopkins University Press, 1976).

The French philosopher Jacques Derrida, who devised the theory of deconstruction in the 1960s, wrote that although the alphabet represents sound, it cannot function without silent marks and spaces. Typography manipulates the silent dimensions of the alphabet, employing habits and techniques—such as spacing and punctuation—that are seen but not heard. The alphabet, rather than evolve into a transparent code for recording speech, developed its own visual resources, becoming a more powerful technology as it left behind its connections to the spoken word.

That a speech supposedly alive can lend itself to spacing in its own writing is what relates to its own death. Jacques Derrida, 1976

LINEARITY

In his essay "From Work to Text," the French critic Roland Barthes presented two opposing models of writing: the closed, fixed "work" versus the open, unstable "text." In Barthes's view, the work is a tidy, neatly packaged object, proofread and copyrighted, made perfect and complete by the art of printing. The text, in contrast, is impossible to contain, operating across a dispersed web of standard plots and received ideas. Barthes pictured the text as "woven entirely with citations, references, echoes, cultural languages (what language is not?), antecedent and contemporary, which cut across and through in a vast stereophony....The metaphor of the Text is that of the network."

Writing in the 1960s and 1970s, Barthes anticipated the Internet as a decentralized web of connections.

Barthes was describing literature, yet his ideas resonate for typography, the visual manifestation of language. The singular "body" of the traditional text page has long been supported by the navigational features of the book, from page numbers and headings that mark a reader's location to such tools as the index, appendix, abstract, footnote, and table of contents. These devices were able to emerge because the typographic book is a fixed sequence of pages, a body lodged in a grid of known coordinates.

All such devices are attacks on linearity, providing means of entrance and escape from the one-way stream of discourse. Whereas talking flows in a single direction, writing occupies space as well as time. Tapping that spatial dimension—and thus liberating readers from the bonds of linearity—is among typography's most urgent tasks.

Although digital media are commonly celebrated for their potential as nonlinear potential communication, linearity nonetheless thrives in the electronic realm, from the "CNN crawl" that marches along the bottom of the television screen to the ticker-style LED signs that loop through the urban environment. Film titles—the celebrated convergence of typography and cinema—serve to distract the audience from the inescapable tedium of a contractually decreed, top-down disclosure of ownership and authorship.

Linearity dominates many of the commercial software applications that have claimed to revolutionize everyday writing and communication. Word processing programs, for example, treat documents as a linear stream. (In contrast, page layout programs such as Quark XPress and Adobe InDesign allow users to work spatially, breaking up text into columns and

Roland Barthes, "From Work to Text," *Image/Music/Text*, trans. Stephen Heath (New York: Hill and Wang, 1977), 155-64.

A text...is a multi-dimensional space in which a variety of writings, none of them original, blend and clash. Roland Barthes, 1971

On the linearity of word processing, see Nancy Kaplan, "Blake's Problem and Ours: Some Reflections on the Image and the Word." *Readerly/Writerly Texts*, 3.2 (Spring/Summer 1996), 125. On PowerPoint, see Edward R. Tufte, "The Cognitive Style of PowerPoint," (Cheshire, Conn.: Graphics Press, 2003).

On the aesthetics of the database, see Lev Manovich, *The Language of New Media* (Cambridge: MIT Press, 2002).

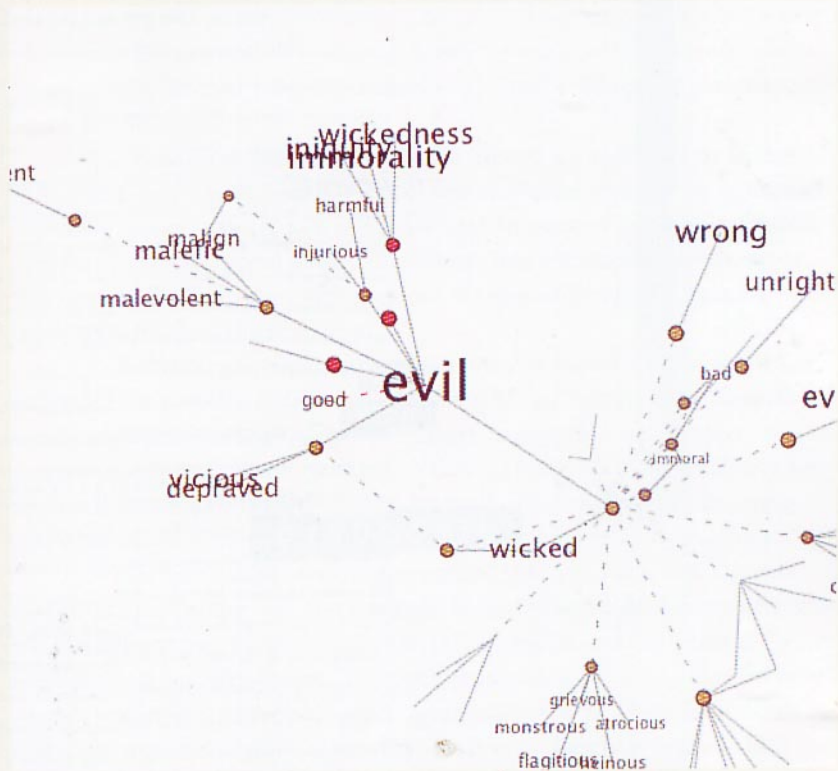
pages that can be anchored and landmarked.) PowerPoint and other presentation software programs are supposed to illuminate the spoken word by guiding the audience through the linear unfolding of an oral address. Typically, however, PowerPoint enforces the one-way flow of speech rather than alleviating it. While a single sheet of paper could provide a map or summary of an oral presentation, a PowerPoint show drags out in time across numerous screens.

Not all digital media favor linear flow over spatial arrangement, however. The database, one of the defining information structures of our time, is an essentially nonlinear form. Providing readers and writers with a simultaneous menu of options, a database is a system of elements that can be arranged in countless sequences. Page layouts are built on the fly from freestanding chunks of information, assembled in response to user feedback. The Web is pushing authors, editors, and designers to work inventively with new modes of "microcontent" (page titles, key words, alt tags) that allow data to be searched, indexed, bookmarked, translated into audio, or otherwise marked for recall.

Databases are the structure behind electronic games, magazines, and catalogues, genres that create an information *space* rather than a linear *sequence*. Physical stores and libraries are databases of tangible objects found in the built environment. Media critic Lev Manovich has described language itself as a kind of database, an archive of elements from which people assemble the linear utterances of speech. Many design projects call for the emphasis of space over sequence, system over utterance, simultaneous structure over linear narrative. Contemporary design often combines aspects of architecture, typography, film, wayfinding, branding, and other modes of address. By dramatizing the spatial quality of a project, designers can foster understanding of complex documents or environments.

The history of typography is marked by the increasingly sophisticated use of space. In the digital age, where characters are accessed by keystroke and mouse, not gathered from heavy drawers of manufactured units, space has become more liquid than concrete, and typography has evolved from a stable body of objects to a flexible system of attributes.

Database and narrative are natural enemies. Competing for the same territory of human culture, each claims an exclusive right to make meaning of the world. Lev Manovich, 2002



Succeeding the Author, the sriptor no longer bears within him passions, humours, feelings, impressions, but rather this immense dictionary from which he draws a writing that can know no halt. Roland Barthes, 1968

KATHERINE **McCoy**
MICHAEL
McCoy

ARTSCIENCE

Nothing pulls you into the territory between art and science quite so quickly as design. It is the borderline where contradictions and tensions exist between the quantifiable and the poetic. It is the field between desire and necessity. Designers thrive in those conditions, moving between land and water. A typical critique at Cranbrook can easily move in a matter of minutes between a discussion of the object as a validation of being to the precise mechanical proposal for actuating the object. The discussion moves from Heidegger to the "strange material of the week" or from Lyotard to printing technologies without missing a beat. The free flow of ideas, and the leaps from the technical to the mythical, stem from the attempt to maintain a studio platform that supports each student's search to find his or her own voice as a designer. The studio is a bothhouse that enables students

the
new

and faculty to encounter their own visions of the world and act on them — a process that is at times chaotic, conflicting, and occasionally inspiring.

Watching the process of students absorbing new ideas and

influences, and the incredible range of interpretations of those ideas into design, is an annual experience that is always amazing. In recent years, for example, the

discourse

department has had the experience of watching wood craftsmen metamorphose into high technologists, and graphic designers into software humanists. Yet it all seems consistent. They are bringing a very personal vision to an area that desperately needs it. The messiness of human experience is warming up the cold precision of technology to make it livable, and lived in.

Unlike the Bauhaus, Cranbrook never embraced a singular teaching method or philosophy, other than Saarinen's exhortation to each student to find his or her own way, in the company of other artists and designers who were engaged in the same search. The energy at Cranbrook seems to come from the fact of the mutual search, although not the mutual conclusion. If design is about life, why shouldn't it have all the complexity, variety, contradiction, and sublimity of life?

Much of the work done at Cranbrook has been dedicated to changing the status quo. It is polemical, calculated to ruffle designers' feathers. And

DANGEROUSLY RIGOROUS

BIRTH OF THE USER

Roland Barthes's model of the text as an open web of references, rather than a closed and perfect work, asserts the importance of the reader over the writer in creating meaning. The reader "plays" the text as a musician plays an instrument. The author does not control its significance: "the text itself plays (like a door, like a machine with 'play') and the reader plays twice over, playing the Text as one plays a game, looking for a practice that reproduces it" (102). Like an interpretation of a musical score, reading is a performance of the written word.

Graphic designers embraced the idea of the readerly text in the 1980s and early 1990s, using layers of text and interlocking grids to explore Barthes's theory of the "death of the author." In place of the classical model of typography as a crystal goblet for content, this alternative view assumes that content itself changes with each act of representation. Typography becomes a mode of interpretation.

Redefining typography as "discourse," designer Katherine McCoy imploded the traditional dichotomy between seeing and reading. Pictures can be read (analyzed, decoded, taken apart), and words can be seen (perceived as icons, forms, patterns). Valuing ambiguity and complexity, her approach challenged readers to produce their own meanings while trying also to elevate the status of designers within the process of authorship.

Another model, which undermined the designer's new claim to power, surfaced at the end of the 1990s, borrowed not from literary criticism but from human-computer interaction (HCI) studies and the fields of interface and usability design. The dominant subject of our age has become neither reader nor writer but *user*, a figure conceived as a bundle of needs and impairments—cognitive, physical, emotional. Like a patient or child, the user is a figure to be protected and cared for but also scrutinized and controlled, submitted to research and testing.

How texts are *used* becomes more important than what they mean. Someone clicked here to get over there. Someone who bought this also bought that. The interactive environment not only provides users with a degree of control and self-direction but also, more quietly and insidiously, it gathers data about its audiences. Barthes's image of the text as a game to be played still holds, as the user respond to signals from the system. We may play the text, but it is also playing us.

Design a human-machine interface in accordance with the abilities and foibles of humankind, and you will help the user not only get the job done, but be a happier, more productive person.

Jef Raskin, 2000

CRANBROOK DESIGN:
THE NEW DISCOURSE
Book, 1990
Designers:
Katherine McCoy,
P. Scott Makela, and
Mary Lou Kroh
Publisher: Rizzoli
Photograph: Dan Meyers
*Under the direction of
Katherine and Michael McCoy,
the graduate program in
graphic and industrial design
at Cranbrook Academy of Art
was a leading center for
experimental design from the
1970s through the early 1990s.
Katherine McCoy developed
a model of "typography as
discourse," in which the designer
and reader actively interpret
an author's text.*

Graphic designers can use theories of user interaction to revisit some of our basic assumptions about visual communication. Why, for example, are readers on the Web less patient than readers of print? It is commonly believed that digital displays are inherently more difficult to read than ink on paper. Yet HCI studies conducted in the late 1980s proved that crisp black text on a white background can be read just as efficiently from a screen as from a printed page.

The impatience of the digital reader arises from culture, not from the essential character of display technologies. Users of Web sites have different expectations than users of print. They expect to feel “productive,” not contemplative. They expect to be in search mode, not processing mode. Users also expect to be disappointed, distracted, and delayed by false leads. The cultural habits of the screen are driving changes in design for print, while at the same time affirming print’s role as a place where extended reading can still occur.

Another common assumption is that icons are a more universal mode of communication than text. Icons are central to the GUIs (graphical user interfaces) that routinely connect users with computers. Yet text can often provide a more specific and understandable cue than a picture. Icons don’t actually simplify the translation of content into multiple languages, because they require explanation in multiple languages. The endless icons of the digital desktop, often rendered with gratuitous detail and depth, function more to enforce brand identity than to support usability. In the twentieth century, modern designers hailed pictures as a “universal” language, yet in the age of code, text has become a more common denominator than images—searchable, translatable, and capable of being reformatted and restyled for alternative or future media.

Perhaps the most persistent impulse of twentieth-century art and design was to physically integrate form and content. The Dada and Futurist poets, for example, used typography to create texts whose content was inextricable from the concrete layout of specific letterforms on a page. In the twenty-first century, form and content are being pulled back apart. Style sheets, for example, compel designers to think globally and systematically instead of focusing on the fixed construction of a particular surface. This way

On screen readability, see John D. Gould *et al.*, “Reading from CRT Displays Can Be as Fast as Reading from Paper,” *Human Factors*, 29, 5 (1987): 497–517.

On the restless user, see Jakob Nielsen, *Designing Web Usability* (Indianapolis: New Riders, 2000).

On the failure of interface icons, see Jef Raskin, *The Humane Interface: New Directions for Designing Interactive Systems* (Reading, Mass.: Addison-Wesley, 2000).

Web users don’t like to read.... They want to keep moving and clicking.
Jakob Nielsen, 2000

of thinking allows content to be reformatted for different devices or users, and it also prepares for the afterlife of data as electronic storage media begin their own cycles of decay and obsolescence.

In the twentieth century, modern artists and critics asserted that each medium is specific. They defined film, for example, as a constructive language distinct from theater, and they described painting as a physical medium that refers to its own processes. Today, however, the medium is not always the message. Design has become a “transmedia” enterprise, as authors and producers create worlds of characters, places, situations, and interactions that can appear across a variety of products. A game might live in different versions on a video screen, a desktop computer, a game console, and a cell phone, as well as on t-shirts, lunch boxes, and plastic toys.

The beauty and wonder of “white space” is another modernist myth that is subject to revision in the age of the user. Modern designers discovered that open space on a page can have as much physical presence as printed areas. White space is not always a mental kindness, however. Edward Tufte, a fierce advocate of visual density, argues for maximizing the amount of data conveyed on a single page or screen. In order to help readers make connections and comparisons as well as to find information quickly, a single surface packed with well-organized information is sometimes better than multiple pages with a lot of blank space. In typography as in urban life, density invites intimate exchange among people and ideas.

In our much-fabled era of information overload, a person can still process only one message at a time. This brute fact of cognition is the secret behind magic tricks: sleights of hand occur while the attention of the audience is drawn elsewhere. Given the fierce competition for their attention, users have a chance to shape the information economy by choosing what to look at. Designers can help them make satisfying choices.

Typography is an interface to the alphabet. User theory tends to favor normative solutions over innovative ones, pushing design into the background. Readers usually ignore the typographic interface, gliding comfortably along literacy’s habitual groove. Sometimes, however, the interface should be allowed to fail. By making itself evident, typography can illuminate the construction and identity of a page, screen, place, or product.

On transmedia design thinking, see Brenda Laurel, *Utopian Entrepreneur* (Cambridge: MIT Press, 2001).

Jef Raskin talks about the scarcity of human attention as well as the myth of white space in *The Humane Interface: New Directions for Designing Interactive Systems*, cited on p. 74.

If people weren’t good at finding tiny things in long lists, the *Wall Street Journal* would have gone out of business years ago. Jef Raskin, 2000

TYPOGRAPHY, INVENTED IN THE RENAISSANCE, allowed text to become a fixed and stable form. Like the body of the letter, the body of text was transformed by print into an industrial commodity that gradually became more open and flexible.

Critics of electronic media have noted that the rise of networked communication did not lead to the much feared destruction of typography (or even to the death of print), but rather to the burgeoning of the alphabetic empire. As Peter Lunenfeld points out, the computer has revived the power and prevalence of writing: "Alphanumeric text has risen from its own ashes, a digital phoenix taking flight on monitors, across networks, and in the realms of virtual space." The computer display is more hospitable to text than the screens of film or television because it offers physical proximity, user control, and a scale appropriate to the body.

The book is no longer the chief custodian of the written word. Branding is a powerful variant of literacy that revolves around symbols, icons, and typographic standards, leaving its marks on buildings, packages, album covers, Web sites, store displays, and countless other surfaces and spaces. With the expansion of the Internet, new (and old) conventions for displaying text quickly congealed, adapting metaphors from print and architecture: window, frame, page, banner, menu. Designers working within this stream of multiple media confront text in myriad forms, giving shape to extended bodies but also to headlines, decks, captions, notes, pull quotes, logotypes, navigation bars; alt tags, and other prosthetic clumps of language that announce, support, and even eclipse the main body of text.

The dissolution of writing is most extreme in the realm of the Web, where distracted readers safeguard their time and prize function over form. This debt of restlessness is owed not to the essential nature of computer monitors, but to the new behaviors engendered by the Internet, a place of searching and finding, scanning and mining. The reader, having toppled the author's seat of power during the twentieth century, now ails and lags, replaced by the dominant subject of our own era: the *user*, a figure whose scant attention is our most coveted commodity. Do not squander it,

On electronic writing, see Peter Lunenfeld, *Snap to Grid: A User's Guide to Digital Arts, Media, and Cultures* (Cambridge: MIT Press, 2001); Jay David Bolter, *Writing Space: Computers, Hypertext, and the Remediation of Print* (Mahwah, NJ: Lawrence Erlbaum Associates, 2001), and Stuart Moulthrop, "You Say You Want a Revolution? Hypertext and the Laws of Media," *The New Media Reader*, ed. Noah Wardrip-Fruin and Nick Monfort (Cambridge: MIT Press, 2003), 691-703.

Hypertext means the end of the death of literature. Stuart Moulthrop, 1991

HEAVY BACKPACK A CREATIVE CATALOGUE
 PROFILES • PRESENTING • INC • LOGIN NEWS • TELL US • FAQs

PROFILES

RECENTLY ADDED

NEW ✓ [icon] Kam Tang

Sort...

NEW ✓ [icon] Kam Tang
 ✓ [icon] Erik Währström
 ✓ [icon] Patrik Sundqvist
 ✓ [icon] Erik Refner
 ✓ [icon] Michael Cina
 ✓ [icon] Michael Corridore
 ✓ [icon] Dave Wilson
 ✓ [icon] Edu Martin
 ✓ [icon] Basit Khan
 ✓ [icon] Ingvar Kenne
 ✓ [icon] Steven Stahlberg
 ✓ [icon] Sparth
 ✓ [icon] Jeff Soto
 ✓ [icon] Nate Van Dyke
 ✓ [icon] Manny Tan


RECENTLY UPDATED

UPD ✓ [icon] Kustaa Saksi

UPD ✓ [icon] Kustaa Saksi
 ✓ [icon] Stefan Gandi
 ✓ [icon] Craig Metzger
 ✓ [icon] Takeshi H
 ✓ [icon] Demo

PROFILES

Images



1 2 3 4 5 6

NEWS

NEWS | REFRESH NEWS | VIEW EDITORS

07:01 • September 18 • 2003
 New update at Anna Komonen's styling website. Nice!
[Anna Komonen](#)

Posted by [icon] Kustaa Saksi

16:37 • September 17 • 2003
 generative abstractions, interactive compositions & experimental interfaces @ [transphormetic](#). Thanks Paul.

Posted by [icon] Rhett Dashwood

16:25 • September 17 • 2003
[ConceptArt.org](#) has some great concept art, from some great concept artists.

Posted by [icon] Rhett Dashwood

17:47 • September 16 • 2003
[Studio Dumber](#) is a design agency established in 1977. Solid graphic design (but need a little help with site navigation)

Posted by [icon] Rhett Dashwood

16:40 • September 15 • 2003
 Sweet and lovely links since 2001. [Styleboost](#) is relaunched, redesigned, rebooted.

Posted by [icon] Rhett Dashwood

22:51 • September 14 • 2003

HEAVY BACKPACK

Web site, 2003

A celebration of visual density is seen in this site that collects and annotates links to other sites.

Do we not have hands,
organs, dimensions?



The corpse of the Australopithecus he had killed lay nude before him. Using two flat stones, he made a cradle to hold his music, the thick book of mysteries he had found in the weeds: *Grant's Anatomy and Dissector*. He knelt down beside her, a cellist about to perform. *Hold the scalpel like a cello bow*, he read, gripping a sharpened clam shell. Then—a quick check against the diagram in the book—he pressed the shell's point into the ape-woman's chest—he flesh yielded easily, blood oozing out not as from a mortal puncture but with no pressure or urgency, as though it was okay, and he continued his bow's stroke—the low opening of a requiem—gaining confidence as he lengthened the incision toward her *Mons Veneris (fig. A)*. He wiped the sweat from his eyes. Since she was more simian than a Neanderthal, he had expected her hide to be at least as thick as a callus so was surprised to find how much like himself an Australopithecus could be.



5489742

PROCESS FOR THE MANUFACTURE OF WEDDLY MICROFABRICATED BIOSENSORS

did



He took a deep breath, then began a second long cut, curving around the other breast, then the navel, duplicating the pattern in the book till her torso was dominated by a brilliant red Y?
...senses, affections, passions?—

As it said in *Grant's*, Square cut a "buttonhole" near her navel. Hooking a finger through it, he pulled the skin of her torso up and over her face. Just as quick, she was transfigured before him: a shimmering anatomical sculpture of rosy muscles, pink and red with striations of yellow fat. A scent of fresh meat wafted up, making his nostrils twitch.

In the book, transparent overlays, smooth as membranes, presented the body as layers where everything rhymed, and turning a leaf, he wished it were that easy. His thumb left a bloody smudge print on one stanza.
...divide the pleura, being careful to....

Are we not fed with the same food, hurt with the same weapons, subject to the same diseases?...

U.S. PATENT No.

5506131

TRANSGENIC ANIMAL MODELS OF INFLAMMATORY DISEASE



DE 11

VAS: AN OPERA IN FLATLAND Book, 2002

Designer: Stephen Farrell
Author: Steve Tomasula
Publisher: Station Hill Press,
In this typographic novel about post-genetic civilization, texts and images align against a series of thin rules incising the outer margins. The boldface letters along the flush edge of the text body accentuate the column structure. The book is printed throughout in three colors (flesh, blood, and black). The body of text is explored as an open system.

Takes two

SCALA, WITH KERNING SUPPRESSED

Spacing appears uneven, with gaps around the T and w.

Takes two

SCALA, WITH KERNING

Spacing seems more even, although some characters nearly touch.

nearly touch

SCALA ITALIC, WITH KERNING SUPPRESSED

A gap appears between the l and y.

nearly touch

SCALA ITALIC, WITH KERNING

The characteristic intimacy of italic requires kerning.

rub my back

rub my back

rub my back

KERNING If letters in a typeface are spaced too uniformly, they make a pattern that doesn't look uniform enough. Gaps occur, for example, around letters whose forms angle outward or frame an open space (W, Y, V, T, L). In metal type, a *kerned* letter extends past the lead slug that supports it, allowing two letters to sit more closely together. In the digital typefaces used today, the space between letters is controlled by a table of *kerning pairs*, which specify spaces between different letter combinations.

LOVE LETTERS

The VE and TT combinations make the words look mismatched.

LOVE LETTERS

Kerning has been manually adjusted for a more even appearance.

KERNING LARGER SIZES Because the space between characters expands as the type size increases, designers often fine-tune letterspacing when working with large letters. As the word "rub" gets bigger, the gap between *u* and *b* grows more obvious.

rub my back

TYPE CRIME:

TOO MUCH SPACE

Mind the gap, especially at larger sizes.

TRACKING Adjusting the overall space between letters, rather than the space between two characters, is called *tracking*, also known as letterspacing. It is common practice to letterspace capitals and small capitals, which appear more regal when standing apart. By slightly expanding the tracking across a body of text, the designer can create a more airy field. Negative tracking is rarely desirable. This device should be used sparingly, to adjust one or more lines of justified type.

Lowercase letters respond less favorably to letterspacing than do uppercase letters, because they are designed to sit together intimately on a line.

NORMAL TRACKING

Letters do love one another. However, due to their anatomical differences, some letters have a hard time achieving intimacy. Consider the letter *V*, for example, whose seductive valley makes her limbs stretch out above her base. In contrast, *L* solidly holds his ground yet harbors a certain emptiness above the waist. Automated kerning tables solve these problems in most situations, but some letters may require personal attention at larger sizes. Capital letters, being square and conservative, prefer to keep a little distance from their neighbors.

LOVE LETTERS

SCALA CAPITALS, NORMAL TRACKING

LOVE LETTERS

SCALA CAPITALS, LOOSE TRACKING

LOVE LETTERS LOVE LETTERS

SCALA SMALL CAPITALS, NORMAL VS. LOOSE TRACKING

love letters love letters

SCALA, ROMAN AND ITALIC, LOOSE TRACKING

love letters love letters

SCALA, ROMAN AND ITALIC, NORMAL TRACKING

POSITIVE TRACKING

Letters do love one another. However, due to their anatomical differences, some letters have a hard time achieving intimacy. Consider the letter *V*, for example, whose seductive valley makes her limbs stretch out above her base. In contrast, *L* who solidly holds his ground yet harbors a certain emptiness above the waist. Automated kerning tables solve these problems in most situations, but some letters may require personal attention at larger sizes. Capital letters, being square and conservative, prefer to keep a little distance from their neighbors.

NEGATIVE TRACKING

Letters do love one another. However, due to their anatomical differences, some letters have a hard time achieving intimacy. Consider the letter *V*, for example, whose seductive valley makes her limbs stretch out above her base. In contrast, *L* solidly holds his ground yet harbors a certain emptiness above the waist. Automated kerning tables solve these problems in most situations, but some letters may require additional guidance at larger sizes. Capital letters, being square and conservative, prefer to keep a little distance from their neighbors.

TYPE CRIME:

NEGATIVE TRACKING

Make the shoe fit, not the foot. Don't use negative tracking to save space.

Ancient maps of the world

An

when the world was flat

Avid

inform us, concerning the void

Dream

where America was waiting

Of

to be discovered,

Trans-

Here Be Dragons. Jacques Baldwin

for-

O to be a dragon. Marianne Moore

mation. Adrienne Kennedy, People Who Led to My Play

MARGO JEFFERSON

DANCE INK: AN AVID DREAM
OF TRANSFORMATION

Magazine page, 1992
Designer: Abbott Miller
Publisher: Patsy Tarr
*The extreme line spacing
(leading) allows two strands
of text to interweave.*

The distance from the baseline of one line of type to another is called *line spacing*. It is also called *leading*, in reference to the strips of lead used to separate lines of metal type. The default setting in most layout and imaging software is slightly greater than the cap height of the letters. Expanding this distance creates a text block with a lighter, more open color. As line spacing increases further, the lines of type become independent linear elements rather than parts of an overall texture.

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7/7 SCALA
7-pt type with
7 pts line spacing

This is called "set solid."
When lines are set this closely together, the ascenders and descenders begin to touch, an uncomfortable effect.

7/8.5 SCALA
Auto spacing; 7-pt type with
8.5 pts line spacing

In most page layout programs, the default line spacing (leading) is 120%, or slightly greater than the cap height.

7/9 SCALA
7-pt type with
9 pts line spacing

This column is set with wider line spacing (leading) than the standard default.

7/10 SCALA
7-pt type with
10 pts line spacing

As the line spacing becomes more extreme, the block of text begins to read as separate lines rather than a shade of gray.

The arrangement of text into columns with hard or soft edges is called *alignment*. Each basic style of alignment brings aesthetic qualities and potential hazards to the design of page or screen. *Justified* text, which has even edges on both left and right, has been the norm since the invention of printing with movable type, which enabled the creation of page after page of straight-edged columns. Justified type makes efficient use of space, and it also creates a clean shape on the page. Ugly gaps can occur, however, when the line length is too short in relation to the size of type used. Hyphenation breaks up long words and helps keep the lines of text tightly packed. Letterspacing can also be used to adjust a line.

JUSTIFIED

The left and right edges are both even.

When it is good: Justified text makes a clean, figural shape on the page.

Its efficient use of space makes it the norm for newspapers and books of continuous text.

When it is evil: Ugly gaps can occur as text is forced into lines of even measure. Avoid this by making sure the line length is long enough in relation to the size of type. As the font gets smaller, more words will fit on each line.

Ugly gaps appear when the designer has made the line length too short, or the author has selected words that are too

l o n g

TYPE CRIME:**FULL OF HOLES**

A column that is too narrow is full of gaps.

In *flush left/ragged right* text, the left edge is hard and the right edge is soft. Word spaces do not fluctuate, so there are never big holes inside the lines of text. This format, which was rarely used before the twentieth century, respects the flow of language rather than submitting to the law of the box. Despite its advantages, however, the flush left format is fraught with danger. Above all, the designer must work hard to control the appearance of the rag along the left edge. A good rag looks pleasantly uneven, with no lines that are excessively long or short, and with hyphenation kept to an absolute minimum. A rag is considered “bad” when it looks too even (or too uneven), or when it begins to form regular shapes, like wedges, moons, or diving boards.

FLUSH LEFT/RAGGED RIGHT

The left edge is hard, and the right edge is soft.

When it is good: Designers choose to set text flush left when they want to respect the organic flow of language and avoid the uneven spacing that plagues narrow columns of justified type.

When it is evil: The flush left column loses its organic appearance when disgraced with a “bad rag.” Strive vigilantly to create the illusion of a random, natural edge without yielding to the sin of hyphenation.

A bad rag will fall into weird shapes along the right edge, instead of looking random.

TYPE CRIME:**BAD RAG**

An ugly wedge-shape spoils the ragged edge.

Flush right/ragged left is a variant of the more familiar flush left setting. It is common wisdom among typographers that flush right text is hard to read, because it forces the reader's eye to find a new position at the start of each line. This could be true, or it could be an urban legend.

At any rate, the flush right setting is rarely employed for long bodies of text. Used in smaller blocks, however, flush right text forms effective marginal notes, sidebars, pull quotes, or other passages that comment on a main body or image.

A flush or ragged edge can suggest attraction (or repulsion) between chunks of information.

FLUSH RIGHT/RAGGED LEFT

The right edge is hard, and the left edge is soft.

When it is good: Flush right text can be a welcome departure from the familiar. It makes effective captions, sidebars, and marginal notes, suggesting affinities among elements on the page.

When it is evil: Flush right text can be an unwelcome departure from the familiar, annoying cautious readers. Bad rags can threaten flush right text just as they afflict flush left, with the added difficulty that punctuation at the ends of lines can weaken the hard right edge.

Lots of punctuation (at the ends of lines) will attack, threaten, and generally weaken the flush right edge. Watch out for this.

TYPE CRIME:
PUNCTUATION EATS THE EDGE
This is not a true crime so much as a situation of compromise.

Centered text is symmetrical, like the facade of a classical building.

Centered type is often employed on invitations, title pages, certificates, and tomb stones.

The edges of a centered column are allowed to be dramatically uneven.

Centered lines are often broken to emphasize a key phrase (such as the name of the bride or the date of her wedding)

or to allow a new thought to begin on its own line.

Breaking lines in this manner is called

breaking for sense.

CENTERED

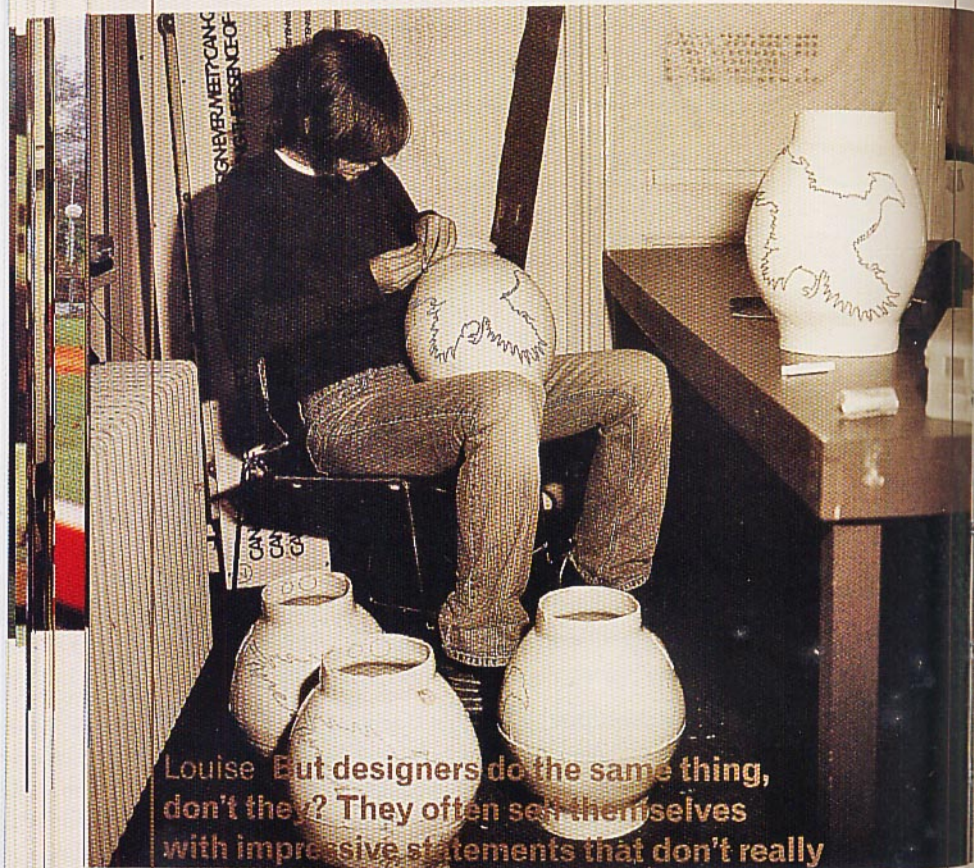
Uneven lines are centered between the left and right edges.

When it is good: Centered text is formal and classical, bearing rich associations with history and tradition. It invites the designer to break a text for sense and create an organic shape in response to the flow of content.

When it is evil: Centered text is static and conventional. Used without care, it looks stodgy, static, and mournful, like a tombstone.

REST
 IN
 PEACE

Death is not a crime, and neither is centered type. Embrace the staid formality of this setting with caution, however.



Louise But designers do the same thing, don't they? They often see themselves with impressive statements that don't really fit the facts of what they make.

BEYOND NOSTALGIA

Embroidery, woodcarving, and minutely detailed ceramic glazes are not techniques we usually associate with contemporary art and design. These age-old methods nonetheless play a prominent part in the work of several current artists and designers, including Berend Strik, Wim Delvoye, and Hella Jongerius.

Berend Strik's work resembles an amalgam of modern vulgar culture, old crafts, and new subject matter. For one of his best-known pieces (*Untitled*, 1993), Strik pasted gaping female mouths in a row, cut away a similar number of phalluses, and accentuated the lip outlines with elegant lines of cross-stitching and other ornamental embroidery. The modification tempts the spectator away from the obvious pornographic interpretation so that, suddenly, the strains of a heavenly choir seem to emerge from those unmistakably lubricious lips. The publication of French philosopher Georges Bataille's book *Les larmes d'Eros* (1986) has made us aware of just how far religious ecstasy is intertwined with sexuality, death, and violence. Strik's subject is the same. His quaint embroidery technique challenges the hypocrisy with which past

HELLA JONGERIUS

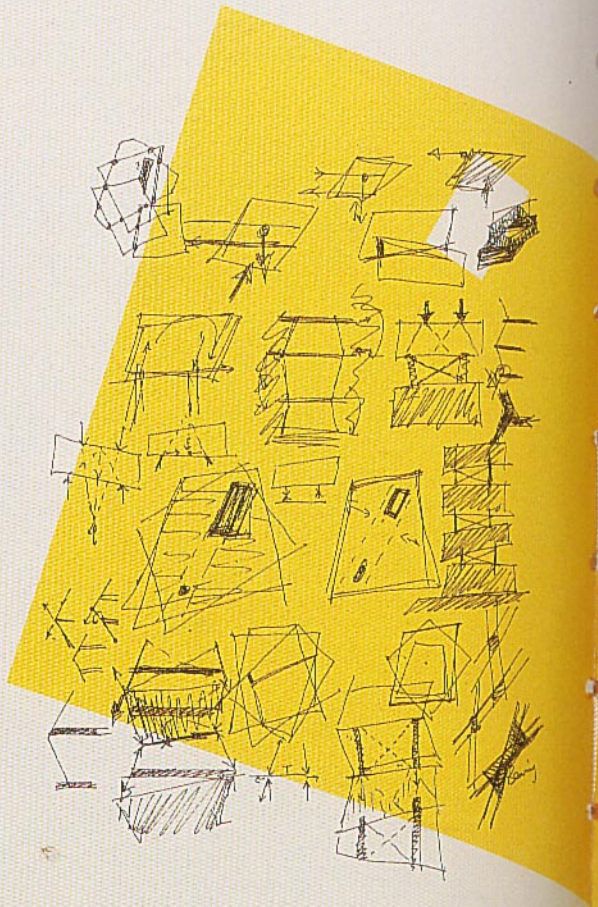
Book, 2003

Designers: COMA, Amsterdam/New York

Author: Louise Schouwenberg

Publisher: Phaidon

Photograph: Dan Meyers



THE BEGINNING

I looked into the form without really knowing it at first; I saw walls flying across space. The tilting planes climbed and cut into each other, violent, shattering any notion of building in the conventional sense.

And the dialogue began between Daniel Libeskind and myself, how could such a form be built?

Libeskind took me back to ancient times, to the Pyramids. We talked of stone and how to build a form like this from masonry – but the oblique planes and large spans would have needed huge ‘strapping’ with prestress or numerous tie devices. Attractive as the idea was in its primitive urges, I advocated concrete or steel to maintain the daring alignments.

There were two ways to consider the question:

implant a certain massiveness and celebrate a high redundancy in the configuration;

or trap the tilting planes in a modern rationale of discrete ‘framing’.

The former would give concrete as a material of tradition, used in an extreme definition; the latter would reduce the great planes to a framing buttressed by internal stiffeners and cross bracing. One method provides density, opacity, and three-dimensional surface as structure, the other lightness and openness that is then clad and windowed. The first answer leads to a labyrinth, the second to transparency.

We exchanged metaphors.

If the form were closed, it could be a mineral deposit, or if an open transparent steel framed building, it could be a lantern or a beacon. If it were heavy, could it be hacked out of granite, or was it buildable out of special masonry? The images helped loosen the thinking and inspired us to look for the radical.

INFORMAL

Book, 2002

Designer: Januzzi Smith

Author: Cecil Balmond

Publisher: Prestel

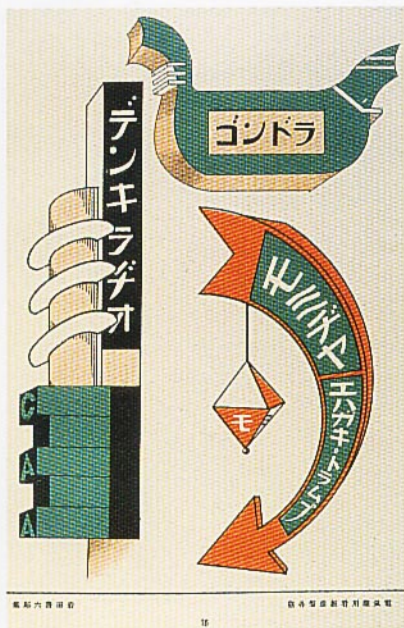
Photograph: Dan Meyers

This book is a manifesto for an “informal” approach to structural engineering and architecture. Throughout the book, the typography combines flush left and flush right alignments, creating a tiny but insistent seam or fissure inside the text column, and irregular rags on the outer edges.

This construction beautifully expresses the principle of informality, underscored by the integration of sketches with the typography of the book.

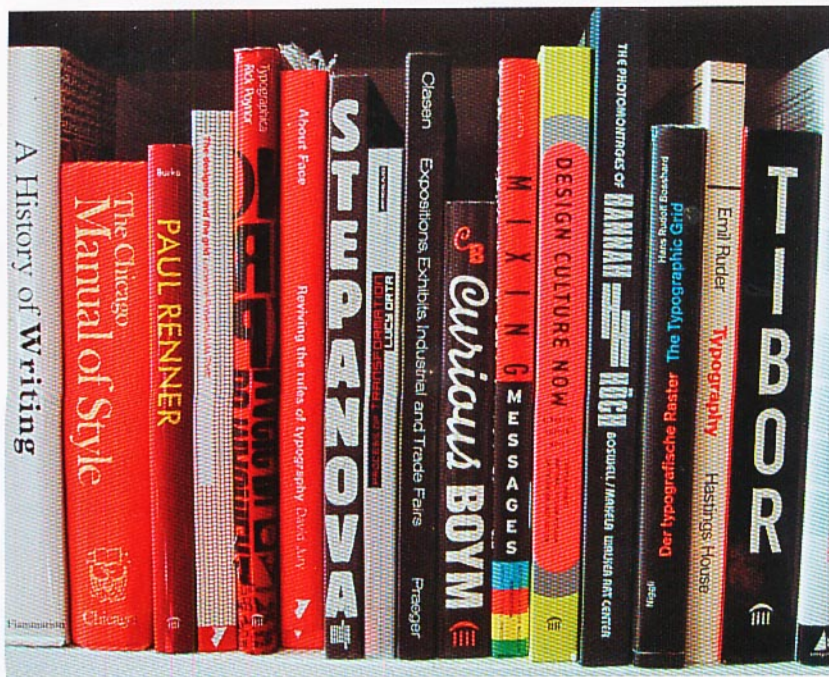


LU FRAN MOTEL
(FAR LEFT)
Wildwood, New Jersey
Photographer:
Dorothy Kresz



ILLUMINATED SIGNS
(LEFT)
Japan, 1924

Commercial signs often employ stacks of characters.



SHELF OF SPINES
Stacked letters sometimes appear on the spines of books, but vertical baselines are more common. Starting from the top and reading down is the predominant direction, especially in the U.S.

| | | | |
|---|---|---|---|
| V | V | V | v |
| E | E | e | e |
| R | R | r | r |
| T | T | t | t |
| I | I | i | i |
| G | G | g | g |
| O | O | o | o |

SMALL CAPS, STACKED

TYPE CRIME:

STACKED LOWERCASE

STACKED CAPITALS

Roman letters are designed to sit side by side, not on top of one another. Uppercase letters form more stable stacks than lowercase letters. Centering the column helps to even out the differences in width. (The letter *I* is a perennial problem.)

STACKED LOWERCASE

Stacks of lowercase letters are especially awkward because the ascenders and descenders make the vertical spacing appear uneven, and the varied width of the characters makes the stacks look precarious.

A film by Alfred Hitchcock
vertigo

vertigo
A film by Alfred Hitchcock

vertigo
A film by Alfred Hitchcock

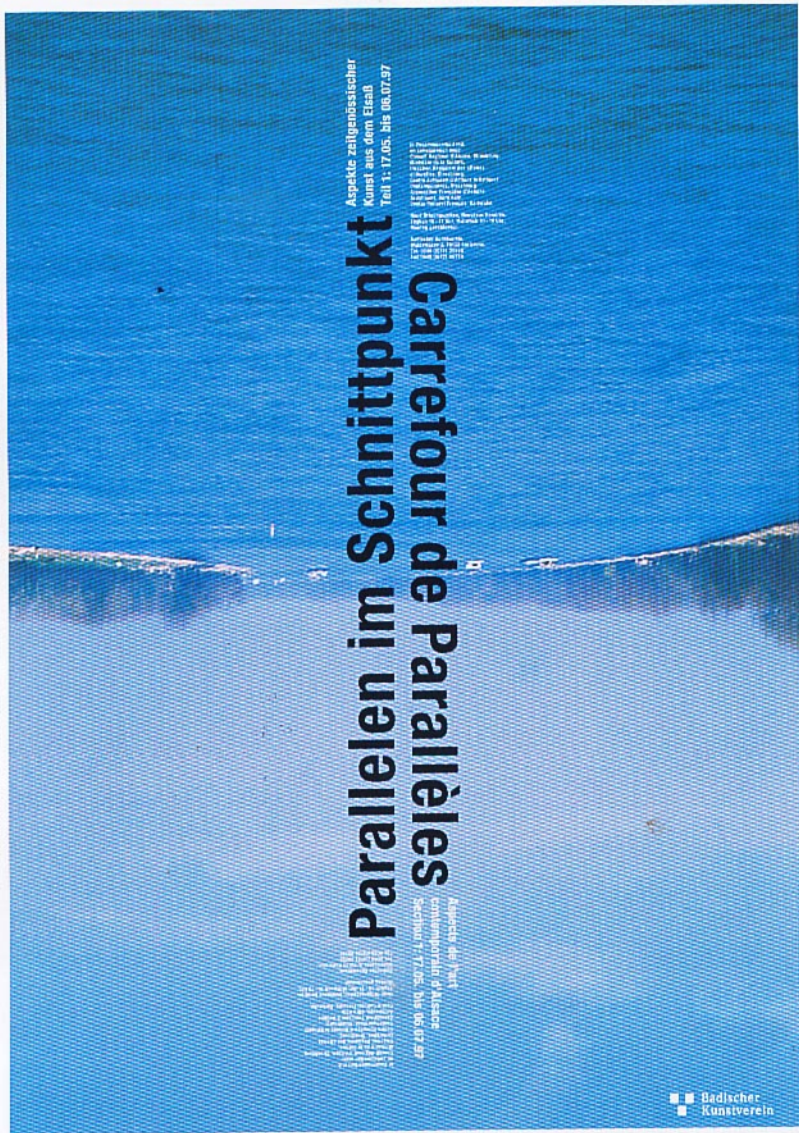
vertigo
A film by Alfred Hitchcock

SCALA LOWERCASE, VERTICAL BASELINES
top to bottom bottom to top both directions

VERTICAL BASELINES

The simplest way to make a line of text form a vertical line is to change the orientation of the baseline from horizontal to vertical. This preserves the natural affinity among letters sitting on a line.

There is no fixed rule determining whether type should run from top to bottom or from bottom to top. It is more common, however, especially in the U.S., to run text on the spines of books from top to bottom. (You can also run text up and down simultaneously.)



Aspekte zeitgenössischer
Kunst aus dem Eisele
Teil 1: 17.05. bis 06.07.97

Parallelen im Schnittpunkt Carrefour de Parallèles

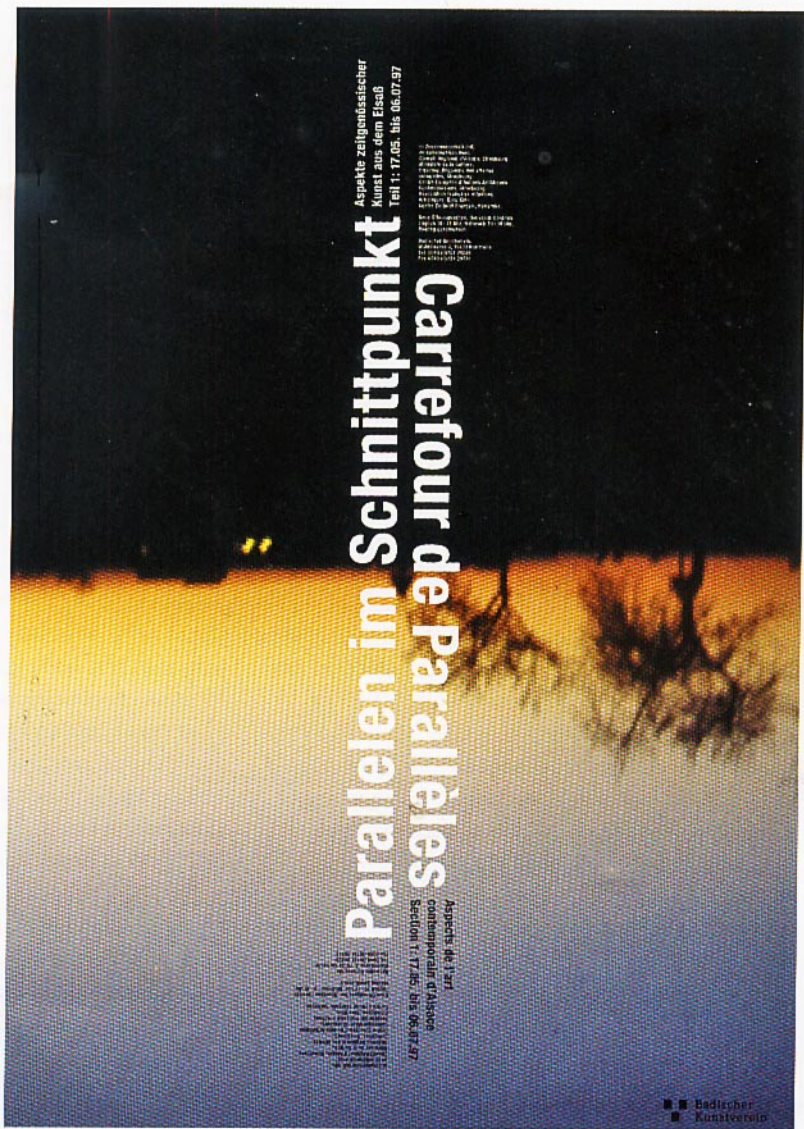
Aspekte der Kunst
contemporaine à Maseo
Schnittpunkt 1: 17.05. bis 06.07.97

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Badischer
Kunstverein

PARALLELEN IM
SCHNITTPUNKT
(CROSSING PARALLELS)
Posters, 1997
Designer: Gerwin Schmidt
Publisher: Art-Club Karlsruhe
*The axes of type and landscape
intersect to create these posters
that are simple, powerful, and
direct. The type is mirrored in
German and French.*



| | | | |
|---|--|--|--|
| <p>HIERARCHY</p> <p>I Division of angels</p> <p>A. Angel</p> <p>B. Archangel</p> <p>C. Cherubim</p> <p>D. Seraphim</p> <p>II Ruling body of clergy</p> <p>A. Pope</p> <p>B. Cardinal</p> <p>C. Archbishop</p> <p>D. Bishop</p> <p>III Parts of a text</p> <p>A. Work</p> <p>B. Chapter</p> <p>C. Section</p> <p>D. Subsection</p> | <p>Hierarchy</p> <p>Division of angels</p> <p>Angel</p> <p>Archangel</p> <p>Cherubim</p> <p>Seraphim</p> <p>Ruling body of clergy</p> <p>Pope</p> <p>Cardinal</p> <p>Archbishop</p> <p>Bishop</p> <p>Parts of a text</p> <p>Work</p> <p>Chapter</p> <p>Section</p> <p>Subsection</p> | <p>HIERARCHY</p> <p>DIVISION OF ANGELS</p> <p>Angel</p> <p>Archangel</p> <p>Cherubim</p> <p>Seraphim</p> <p>RULING BODY OF CLERGY</p> <p>Pope</p> <p>Cardinal</p> <p>Archbishop</p> <p>Bishop</p> <p>PARTS OF A TEXT</p> <p>Work</p> <p>Chapter</p> <p>Section</p> <p>Subsection</p> | <p>HIERARCHY</p> <p>angel</p> <p>archangel</p> <p>cherubim</p> <p>seraphim</p> <p>cardinal</p> <p>archbishop</p> <p>bishop</p> <p>chapter</p> <p>section</p> <p>subsection</p> |
|---|--|--|--|

**SYMBOLS, INDENTS,
AND LINE BREAKS**

**INDENTS AND
LINE BREAKS ONLY**

**FONT CHANGE, INDENTS,
AND LINE BREAKS**

**ALIGNMENT, FONT
CHANGE, AND LINE BREAKS**

HIERARCHY A typographic *hierarchy* expresses an organizational system for content, emphasizing some data and diminishing others. A hierarchy helps readers scan a text, knowing where to enter and exit and how to pick and choose among its offerings. Each level of the hierarchy should be signaled by one or more cues, applied consistently across a body of text. A cue can be spatial (indent, line spacing, placement on page) or graphic (size, style, color of typeface). Infinite variations are possible.

REDUNDANCY Writers are generally trained to avoid redundancy, as in the expressions “future plans” or “past history.” In typography, some redundancy is acceptable, even recommended. For example, paragraphs are traditionally marked with a line break *and* an indent, a redundancy that has proven quite practical, as each signal provides backup for the other. To create an elegant economy of signals, try using no more than three cues for each level or break in a document.

BOLD, ITALIC,
UNDERLINED
CAPS!

TYPE CRIME:
TOO MANY SIGNALS
*Emphasis can be created
with just one shift.*

CREATING EMPHASIS WITHIN RUNNING TEXT
Emphasizing a word or phrase within a body of text usually requires only one signal. *Italic* is the standard form of emphasis. There are many alternatives, however, including **boldface**, **SMALL CAPS**, or a **change in color**. You can also create emphasis with a **different font**; a full-range type family such as *Scala* has many font variations designed to work together. If you want to mix font families, such as *Scala* and **Futura**, adjust the sizes so that the x-heights align.

MAIN HEAD

COMMON TYPOGRAPHIC DISEASES

MAIN TEXT

Various forms of dysfunction appear among populations exposed to typography for long periods of time. Listed here are a number of frequently observed afflictions.

TYPOPHILIA An excessive attachment to and fascination with the shape of letters, often to the exclusion of other interests and object choices. Typophiliacs usually die penniless and alone.

TYPOPHOBIA The irrational dislike of letterforms, often marked by a preference for icons, dingbats, and—in fatal cases—bullets and daggers. The fears of the typophobe can often be quieted (but not cured) by steady doses of Helvetica and Times Roman.

SUBSECTIONS

TYPOCHONDRIA A persistent anxiety that one has selected the wrong typeface. This condition is often paired with **OKD** (optical kerning disorder), the need to constantly adjust and readjust the spaces between letters.

TYPOTHERMIA The promiscuous refusal to make a lifelong commitment to a single typeface—or even to five or six, as some doctors recommend. The *typothermiac* is constantly tempted to test drive “hot” new fonts, often without a proper license.

COMMON TYPOGRAPHIC DISEASES

Various forms of dysfunction appear among populations exposed to typography for long periods of time. Listed here are a number of frequently observed afflictions.

Typophilia An excessive attachment to and fascination with the shape of letters, often to the exclusion of other interests and object choices. Typophiliacs usually die penniless and alone.

Typophobia The irrational dislike of letterforms, often marked by a preference for icons, dingbats, and—in fatal cases—bullets and daggers. The fears of the typophobe can often be quieted (but not cured) by steady doses of Helvetica and Times Roman.

Typochondria A persistent anxiety that one has selected the wrong typeface. This condition is often paired with **OKD** (optical kerning disorder), the need to constantly adjust and readjust the spaces between letters.

Typothermia The promiscuous refusal to make a lifelong commitment to a single typeface—or even to five or six, as some doctors recommend. The *typothermiac* is constantly tempted to test drive “hot” new fonts, often without a proper license.

There are endless ways to express the hierarchy of a document.

zur Huldigung des Kaisers
abgebildet:

„Ich habe es nicht gewollt.“

Bei Solifons wurden die feindlichen Heer'n
Von den tapfern Deutschen geschlagen,
Da stellt nach der Schlacht Kaiser Wilhelm sich ein,
Um den Helden ein Dankwort zu sagen.

Und wo der geliebte Herrscher erscheint,
Erhoben sich glücklich die Hände,
Aus tausend freudigen Stimmen vereint
Gab's ein Jubelgeschrei ohne Ende.

Nachdem schritt der Kaiser, der sichlich bewegt,
Auf das Feld, wo vor wenigen Stunden
Die Helden zur ewigen Ruh ruhen zogen,
Die den Tod auf dem Schlachtfeld gefunden.

Am Grab eines Jünglings stand der Kaiser auf zum
Kamm „Stolzgehn“ — im Grab der alten —
Der Herrscher von Wehmut jetzt übermannt
Kannst' die Tränen sich nicht mehr enthalten.

Er betete Worte ferndeutlich — trenn' ich Geld,
Vor denen ein Weltall Ruh bringe:
„Gott Dank im Himmel — Ich hab's
nicht gewollt.“
Du weißt es — Du bist mein Zeuge.“

Paul Hindemith
Symphonie 2

III. Überleitung des Gesamttextes.

Karl Kraus zählt Wilhelm II.
zu „den Schwerverbrechern
auf dem Thron“ mit der
„Beteuerung, daß sie es nicht
gewollt haben, woran sie,
da sie es taten, doch schuldig
sind“ [F 595.2].

- 1920; F 531,52f.
- gemeinsames **Vorgehen**
 - etwas zum **Vortrag** bringen
 - in die **Falle** gehen
 - ich habe alles reiflich **erwogen**
 - im **Lauf** des Abends
 - ein **Laut** auf den Lippen
 - zum **Schluß**
 - zu **Mantua** in Banden Der treue
Hofer war
 - **Gesellschaft** mit beschränkter
Haftung / G.m. b. H.
 - **vorlieb** nehmen

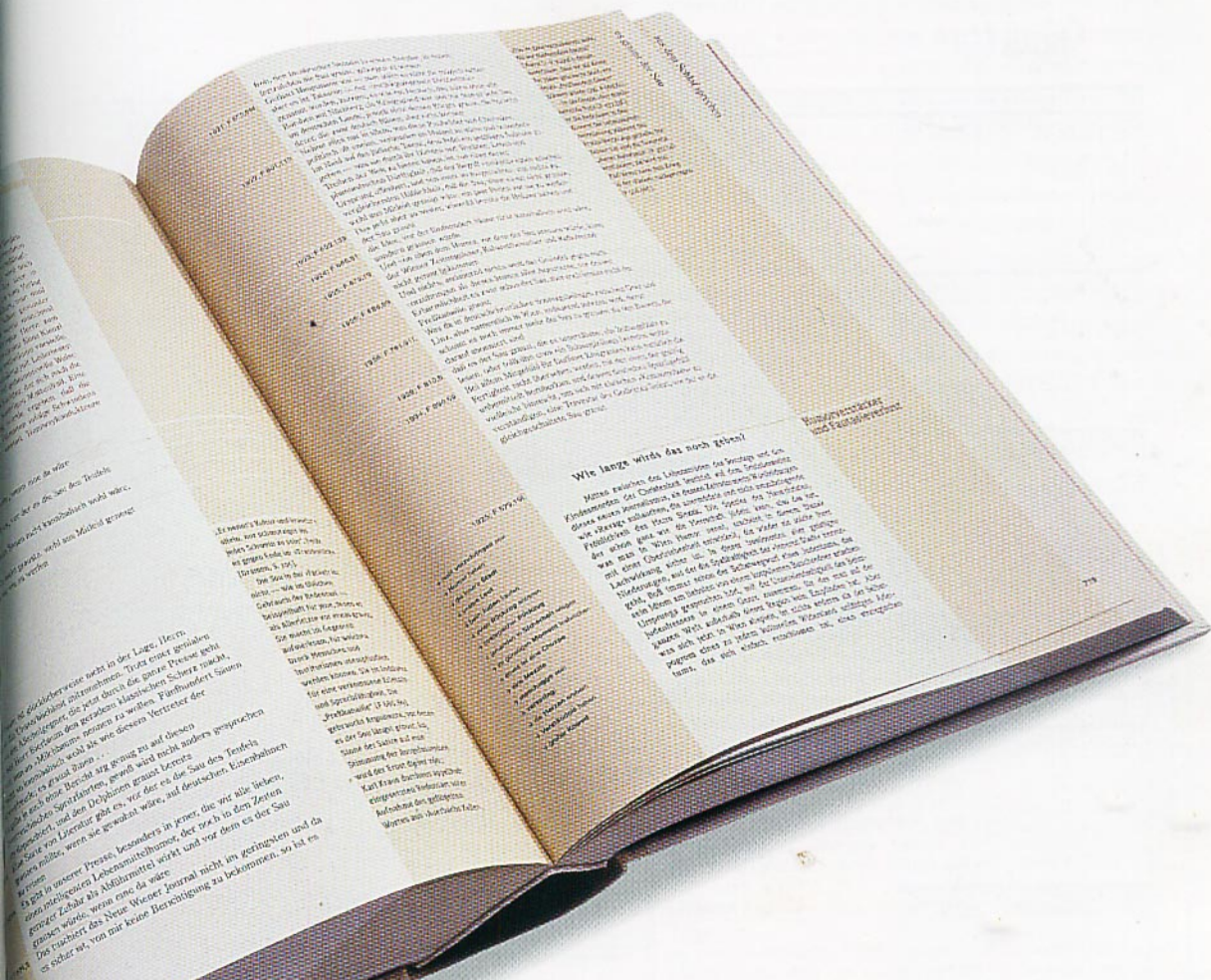
— — (Momentan sind wir z. B. bei der
seit der Thronbesteigung!) — —

— — So erlebte ich, daß er einen doch in
Major, den Adjutanten des Kronprinzen, gar
Ohrzog, ihm einen tüchtigen Schlag
gab und sagte: — —

— — empfing er in Tempelhof im Sab
minister und den Chef des Militärkabinettes mit
alten Esel glaubt, daß ihr alles besser wif

*) Deutsche Verlagsanstalt, Stuttgart, 192

Und daß das »gemeinsame Vorgehen« für der
war, »sobald Kraus die Satire auf Kaiser Wilhelm
werde«, beweist eine Vertrautheit der Inns
Programm, die ich selbst am Nachmittag noch n
ihnen in die Falle gegangen! Aber wenn einer
Innsbruck auf Demonstrationen ausgehen, bis
Abends eine Ahnung von dem Vorhandensein
will ich dem Wilhelm glauben, daß er es nicht ge
Josef, daß er alles reiflich erwogen hat. Die Wal
einer vagen Kenntnis meiner Gesinnung, aber v
die ihre auszuleben, in den Saal geführten Im
Abends ein Dutzend weit besserer Anlässe — e
zwei Diebsgenerale — hatten vorübergehen lass
der Laut auf den Lippen erstarb, und erst zum
über die eigene Unregsamkeit ihnen Bewußts
ihre Anwesenheit legitimierten, indem sie



WÖRTERBUCH DER REDENSARTEN/
KARL KRAUS, DIE FACKEL

Book, 1999

Designer: Anne Burdick

Publisher: Österreichischen Akademie der Wissenschaften
 This book presents essays from the journal Die Fackel, published by the Viennese writer Karl Kraus from 1899 to 1936. The journal's text appears in the center of each page. This text is sometimes represented with an image of the original publication and sometimes filtered through the modern typography of the new edition. In the beige-colored margins, different styles and sizes of type indicate different modes of editorial commentary.

Speak Up

UPDATES, NEWS & ANNOUNCEMENTS

New Business Article: Pro-Bono or No-Bono | Three new Word Its

A DIVISION OF UNDER CONSIDERATION

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¿Es el Diseño Gráfico Universal?

Discussion

Is graphic design a universal language? As the face of the United States changes, how do designers fit into the growing language challenges? For instance, the new light rail system in Minneapolis has ticket machines that have instructions in four languages: English, Spanish, Somali and Hmong.

Continue reading this entry

By brook on Feb.20.2004 • Link • Comments [12]

Andrew Blauvelt Speaks Up

Interview

Can graphic design save itself? What exactly do we need to save ourselves from? Questions like these plagued me after reading Andrew Blauvelt's essay in *Emigre #64 Towards Critical Autonomy or Can Graphic Design Save Itself?* This wasn't the first time Blauvelt's writing had incited me. *Building Bridges: A Research Agenda for Education and Practice* called for a refinement of graduate study and practice in graphic design. We should push beyond the limits already experienced. And that's where his *Emigre* article put a bigger fire under me. Change what we do, not how we do it. It's more about point of view than visualizing your point, with a great opportunity for revolutionary work. Obvious? For me it wasn't.

> Read the interview.

By Jason on Feb.19.2004 • Link • Comments [3]

Are There Too Many Of Us?

Discussion

Going to a bar or a coffee shop these days, it seems like the city is overrun by art directors, designers and other creative professionals. It used to be that when you stated to be a graphic designer, it was perceived as exotic and even special and people looked at you with the "ah, that explains it" type of look. Now everyone seems to be in the creative field. And I don't think I frequent spots that are considered designer-hang-outs. However, I live and work in Los Angeles and what happens here might not be the norm for the rest of the country, but I noticed the same in Switzerland, where I grew up and went through art school. Maybe not to the extent as here in southern California, but still, the shift is significant.

Continue reading this entry

By Peter Scherrer on Feb.18.2004 • Link • Comments [112]

Recent Comments

- > ¿Es el Diseño Gráfico Universal? [12]
- > Are There Too Many Of Us? [112]
- > A Rewarding Experience [9]
- > Andrew Blauvelt Speaks Up [3]
- > The Icky Mouse Club [35]
- > My Name is Font: Ultra Pixel Font. [36]
- > Design: Alive and Well, and Living in the Midwest [27]
- > A Branded Education [28]

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Enter Keywords

go find it!

Word It Tease

SEE ALL



by: Kiran Max Heber

Most Recent

- > Tease
- > Empty
- > Virtue

Archive

By Category

By Month

Submit an Idea for Discussion

E-mail (Required)

SPEAK UP (LEFT)

Web site, 2004

Designer: Armin Vit; logo by Michael Clark

This on-line design forum presents readers with a dense menu of content articulated into a clear hierarchy. Each type of content is labeled (interview, discussion, essay). Featured threads are presented at the center of the screen, where a substantial passage of text allows readers to decide whether to proceed further. Titles are given drama and importance through placement, color, and font choice. Site branding is kept to a minimum, allowing the content to dominate.

Most Web sites are controlled by hierarchies in an even more systematic way than print documents. A site's file structure proceeds from a root down to directories holding various levels of content. An HTML page contains a hierarchy of elements that can be nested one inside the other. The site's organization is reflected in its interface—from navigation to the formatting of content. Typography helps elucidate the hierarchies governing all these features.

Dynamic Web sites use databases to build pages on the fly as users search for specific content. Databases cut across the planned hierarchy of a site, bringing up links from different levels and content areas—or from other Web sites. Typographic style sheets are used to weight the information gathered, helping users find what they need.

The screenshot shows the A9 search engine interface. At the top left is the A9 logo with the word 'beta' to its left. A search bar contains the text 'Ellen Lupton' and a 'GO' button. To the right of the search bar are links for 'Home' and 'Sign In'. Below the search bar, a greeting says 'Hello, [sign in](#) to enable site features.'

The main content area is divided into two columns of search results. The left column is titled 'Web Results [close]' and shows 'Showing 1 - 10 of about 7,270'. The right column is titled 'Book Results [close]' and shows 'Showing 1 - 10 of about 470'. A vertical sidebar on the far right is labeled 'Open Search History'.

Web Results [close] Showing 1 - 10 of about 7,270

Ellen Lupton: New Home Page
Think more, design less. Announcements. Archive. This site is an informal archive and design resource drawn from the work of **Ellen Lupton** and Abbott Miller. ...
<http://www.designwritingresearch.org/> - 4k Cached
[Site Info](#)

Design Writing Research: Ellen Lupton
About us, **Ellen Lupton** is a writer, curator, and graphic designer. She is director of the MFA program in graphic design at Maryland ...
http://www.designwritingresearch.org/lupton_page.html
- 5k: Cached [Site Info](#)

:: Speak Up > Ellen Lupton > "Thinking With Design" ::
... **Ellen Lupton** > "Thinking With Design". **Ellen Lupton** To Present "Thinking With Design". **Ellen Lupton**, curator, graphic designer ...
<http://www.underconsideration.com/speakup/archives/>

Book Results [close] Showing 1 - 10 of about 470

Design Writing Research
by Ellen Lupton (10 June, 1999)

Skin: Surface, Substance, and Design
by Ellen Lupton, Jennifer Tobias, Alicia Imperiale, Grace Jeffers, and Randi Mates (March, 2002)

Design Culture Now: The National Design Triennial
by Donald Albrecht, Ellen Lupton, Steven Holt, and Steven Skov Holt (15 March, 2000)

Mixing Messages: Graphic Design in Contemporary Culture
by Ellen Lupton (September, 1996)

Letters from the Avant-Garde: Modern Graphic Design
by Ellen Lupton and Elaine Lustig Cohen (March, 1996)

www.A9.COM, Search engine, 2004
A search engine applies a typographic hierarchy to the results it calls up, using color, size, weight, and underlining to differentiate its parts.

Many designers are passionately committed to building accessible sites for the Web. This medium was invented in order to provide universal access to information, a goal it may some day achieve, regardless of a user's physical abilities or access to specialized software.

Cascading Style Sheets (CSS) allow designers to plan alternate layouts depending on the user's software and hardware. For example, cell phones and personal digital assistants display Web sites in a text-only format, while some users have outdated browsers or lack the software "plug-ins" required for displaying certain kinds of files. Style sheets can also be used to design print-friendly versions of interactive documents.



BRICK-BY-BRICK.ORG

Web site, 2001

Designers: Red Canoe

Publisher: Kavanagh

Productions

This Flash-enabled site was created for a documentary film about desegregation. It includes a text-based, HTML version, designed for users without access to Flash. The HTML version is also easy to print and is useful to journalists or researchers desiring direct access to the text.

Brick by Brick: a civil rights story is a documentary by Bill Kavanagh. It tells the story of one of contemporary America's most important battles for fair housing and civil rights.

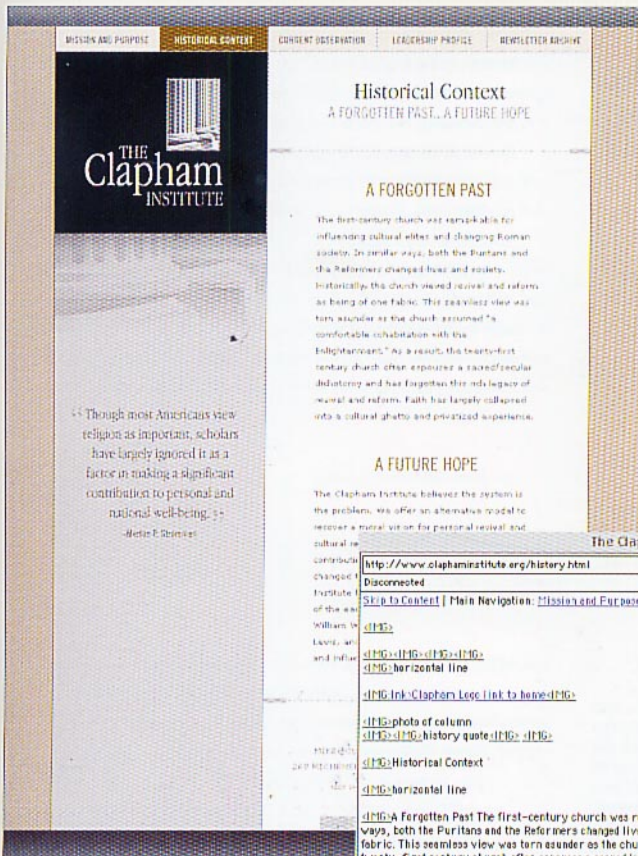
[This Web site is the text-only version of Brick-by-Brick.com. Use this page for easy reading and printing. Please visit the [graphics menu](#) if your browser supports graphics and the [Microprint Page](#). We recommend that you upgrade your browser to view the graphics-rich site and meet other modern Web content. You can upgrade your browser's at either [Microsoft \(Internet Explorer\)](#) or [Netscape](#).]

ABOUT THE FILM

Synopsis

Bill Kavanagh's *Brick by Brick: A Civil Rights Story* is a feature-length documentary that follows three families in Yonkers, NY through a winding path as they confront city politics of racial division and work to change their hometown. The film follows a decade-long struggle over desegregation in a contemporary northern locale.

The film deals with the isolation of people of color in an institutionally created public housing ghetto, and the segregated schools in this community. *Brick by Brick: A Civil Rights Story* goes on to document the progress of community action to improve schools and finally a federal suit filed to force the city to act.



Visually impaired users employ automated screen readers that “linearize” Web pages into a continuous text that can be read aloud by a machine. Techniques for achieving accessibility include the captioning of all layout tables (or, better yet, the avoidance of tables altogether), the consistent use of “alt tags” (which identify image files), and the placement of page anchors in front of repeated navigation elements that enable users to go directly to the main content. Various software programs allow designers to test the linearization of their pages.

CLAPHAMINSTITUTE.ORG

Web site, 2003

Designer: Colin Day, Exclamation Communications

Publisher: The Clapham Institute

This site was designed to be accessible to sighted and non-sighted users. At right is a linearized version of the page above.



One of the defining principles of the Web is that it should provide all people, regardless of physical or technological readiness, with access to information. Patrick Lynch and Sarah Horton, 2001

PARAGRAPHS do not occur in nature. Whereas sentences are grammatical elements intrinsic to the spoken language, paragraphs are a wholly literary convention designed to divide content into portions that are more appetizing to readers (and writers) than an endless stream of discourse. In the seventeenth century, it became standard to mark the beginning of a new paragraph with an indent, and to mark its close with a line break. Before then, typographers sometimes left extra space between paragraphs or sentences (without a line break), preserving the clean edges of the text block. Despite the ubiquity of the indent/line break convention today, numerous alternatives can be used in its place. Inventing new ones is an intriguing typographic exercise.

This exercise indebted to George Sadek and William Bevington at the Cooper Union

For the glorye of the sayntes whiche shal be yeuen at the last comyng shal neuer ende ne fynysse. And to this signifye sence the first responce of the first weke of aduent hath iiii verse to rekene ¶ Gloria patri & filio for one to the reporte of the iiii wekis, and how be it that there be iiii comynges of our lord, yet the chirche maketh mencion in especial but of tweyne, that is to wete, of that he came in humayne nature to the world, and of that he cometh to the Jugement & dome, as it apperith in thoffyce of the chirche of this tyme. And therfor the fastynges that ben in this tyme, ben of gladnes and of joye in one partie, & that other partie is in bitternesse of herte. By cause of the comyng of ourlorde in our nature humayne, they ben of joye and gladnes. And by cause of the comyng at the day of Jugement they be of bitternes and heuynes.

BIBLIA INNOCENTIIUM

Page detail, 1892

Designer: William Morris

Publisher: Kelmscott Press

William Morris admired the

dense pages of the early

Renaissance. Here, he has used

a paragraph symbol in place

of line breaks and indents.

The table is covered with a table cloth which itself is protected by a plastic table cloth. Drapes and double drapes are at the windows. We have carpets, slipcovers, coasters, wainscoting, lampshades. Each trinket sits on a doily, each flower in its pot, and each pot in its saucer.

Everything is protected and surrounded. Even in the garden, each cluster is encircled with wire netting, each path is outlined by bricks, mosaics, or flagstones.

This could be analyzed as an anxious sequestration, as an obsessional symbolism: the obsession of the cottage owner and small capitalist not only to possess, but to underline what he possesses two or three times. There, as other places, the unconscious speaks in the redundancy of signs, in their connotations and overworking.

— Jean Baudrillard, 1969

INDENT AND LINE BREAK

The table is covered with a table cloth which itself is protected by a plastic table cloth. Drapes and double drapes are at the windows. We have carpets, slipcovers, coasters, wainscoting, lampshades. Each trinket sits on a doily, each flower in its pot, and each pot in its saucer.

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— Jean Baudrillard, 1969

OUTDENT, OR HANGING INDENTATION

The table is covered with a table cloth which itself is protected by a plastic table cloth. Drapes and double drapes are at the windows. We have carpets, slipcovers, coasters, wainscoting, lampshades. Each trinket sits on a doily, each flower in its pot, and each pot in its saucer.

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— Jean Baudrillard, 1969

LINE BREAK ONLY, WITHOUT INDENT

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— Jean Baudrillard, 1969

LINE BREAK AND 1/2 LINE SPACE

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— Jean Baudrillard, 1969

EXTRA SPACE INSIDE LINE, WITHOUT LINE BREAK

The table is covered with a table cloth which itself is protected by a plastic table cloth. Drapes and double drapes are at the windows. We have carpets, slipcovers, coasters, wainscoting, lampshades. Each trinket sits on a doily, each flower in its pot, and each pot in its saucer. ■ Everything is protected and surrounded. Even in the garden, each cluster is encircled with wire netting, each path is outlined by bricks, mosaics, or flagstones. ■ This could be analyzed as an anxious sequestration, as an obsessional symbolism: the obsession of the cottage owner and small capitalist not only to possess, but to underline what he possesses two or three times. There, as other places, the unconscious speaks in the redundancy of signs, in their connotations and overworking.

— Jean Baudrillard, 1969

SYMBOL; NO INDENT OR LINE BREAK

The first word of the first line is *the* critical word of that particular body of text. Let it start flush, at least. W. A. Dwiggins

You can express the meaning of a word or an idea through the spacing, sizing, and placement of letters on the page. Designers often think this way when creating logotypes, posters, or editorial headlines. In this project, physical processes such as disruption, expansion, and migration are expressed through the spacing and arrangement of letters. The round Os in Futura make it a fun typeface to use for this project.

*Examples of student work from
Maryland Institute College of Art*

sition transiti

JOHNSCHEN KUDOS

dis^ruption

JOHNSCHEN KUDOS

c o m p r e s s i o n

JOHNSCHEN KUDOS



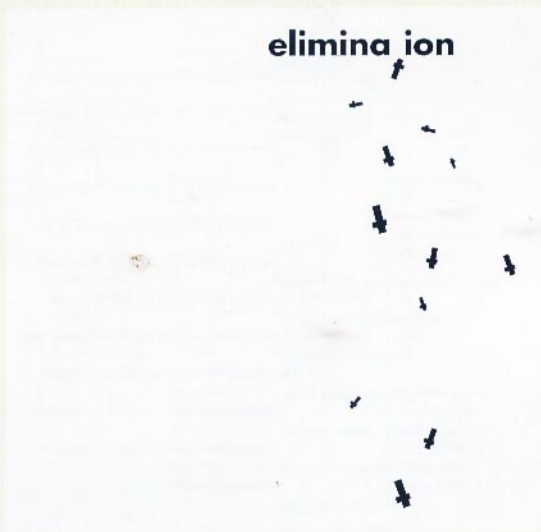
MARCOS KOLLTHAR



JASON HOGG



HEATHER WILLIAMS



HEATHER WILLIAMS

Use modes of alignment (flush left, flush right, justified, and centered) to actively interpret a passage of text. The passage here, from Walter Ong's book *Orality and Literacy: The Technologizing of the Word*, explains how the invention of printing with movable type imposed a new spatial order on the written word, in contrast with the more organic pages of the manuscript era. Each project comments on the conflicts between hard and soft, industrial and natural, planning and randomness, that underlie all typographic composition.

*Examples of student work from
Maryland Institute College of Art*

PRINT
situates words in space more relentlessly than writing ever did. Control of position is everything in print. Printed texts look machine-made, as they are. Typographic control typically impresses most by its tidiness and invisibility: the lines perfectly regular, all justified on the right side, everything coming out even visually, and without the aid of guidelines or ruled borders that often occur in manuscripts. This is an insistent world of cold, non-human, facts.

WRITING
moves words from the sound world to a world of visual space, but print locks words into position in this space. In handwriting, control of space tends to be ornamental, ornate, as in calligraphy.

Passages of flush left and flush right text hinge from a central axis.
JOHNSCHEN KUDOS

PRINT SITUATES WORDS IN SPACE MORE RELENTLESSLY THAN WRITING EVER DID. WRITING MOVES WORDS FROM BUT PRINT LOCKS WORDS INTO POSITION IN THIS SPACE. CONTROL OF POSITION IS EVERYTHING IN PRINT. PRINTED TEXTS LOOK MACHINE-MADE, AS THEY ARE. IN HANDWRITING, CONTROL OF SPACE TYPOGRAPHIC CONTROL TYPICALLY IMPRESSES MOST BY ITS TIDINESS AND INVISIBILITY: THE LINES PERFECTLY REGULAR, ALL JUSTIFIED ON THE RIGHT SIDE, EVERYTHING COMING OUT EVEN VISUALLY, AND WITHOUT THE AID OF GUIDELINES OR RULED BORDERS THAT OFTEN OCCUR IN MANUSCRIPTS. THIS IS AN INSISTENT WORLD OF COLD, NON-HUMAN, FACTS.

the sound world
to a world of visual space,
tends to be ornamental,
ornate, as in calligraphy.

Randomly spaced words break free from a rigidly justified column.
LU ZHANG

Print situates words in space more relentlessly than writing ever did. Writing moves words from the sound world to a world of visual space, but print locks words into position in this space. Control of position is everything in print. Printed texts look machine-made, as they are. In handwriting, control of space tends to be ornamental, ornate.

Typographic control typically impresses most by its tidiness and invisibility: the lines perfectly regular, all justified on the right side, everything coming out even visually, and without the aid of guidelines or ruled borders that often occur in manuscripts. This is an insistent world of cold, non-human, facts.

Long, centered lines are bridges between narrow, ragged columns.
BENJAMIN LUTZ

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relentlessly than writing ever did. Writing moves words from the sound world to a world of visual space, but print locks words into position in this space.

Control of position is everything in print.

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THIS IS AN INSISTENT WORLD OF COLD, NON-HUMAN, FACTS.

The beginning of the paragraph is moved to the end.

DANIEL ARBELLO

A single line slides out of a justified block.

KAPILA CHASE

*Writing moves words
from the sound world
to a world of*

V I S U A L S P A C E

Print situates words in space more relentlessly than writing ever did.

but print locks words into position in this space. Control of position is everything in print. Printed texts look machine-made, as they are.

*In handwriting, control of
space tends to be ornamental,
ornate, as in calligraphy.*

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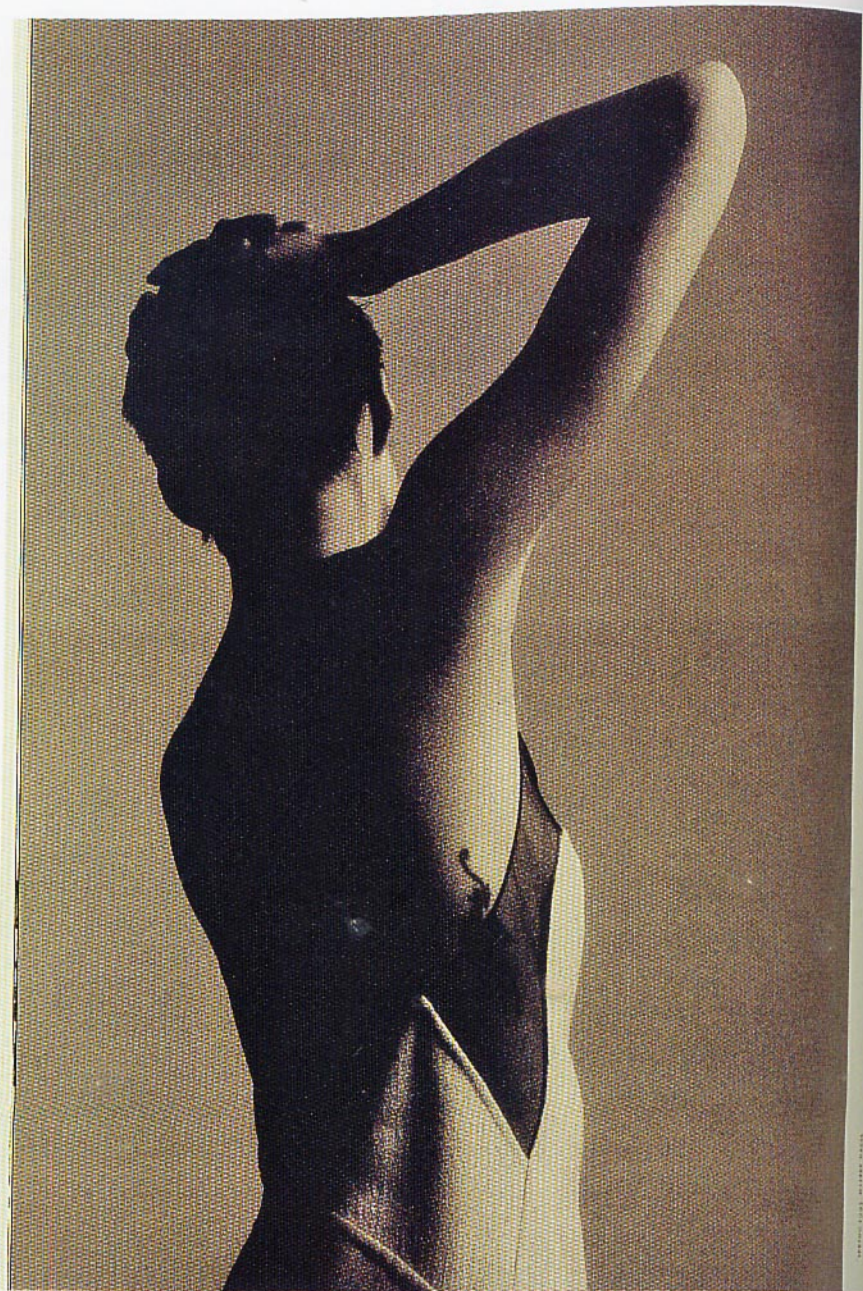
that often occur in manuscripts. This is an insistent world of cold, non-human, facts.

Elements break away from a justified column.

EFRAAT LEVUSH

Text is forced into a grid of ragged squares.

KIM BENDER

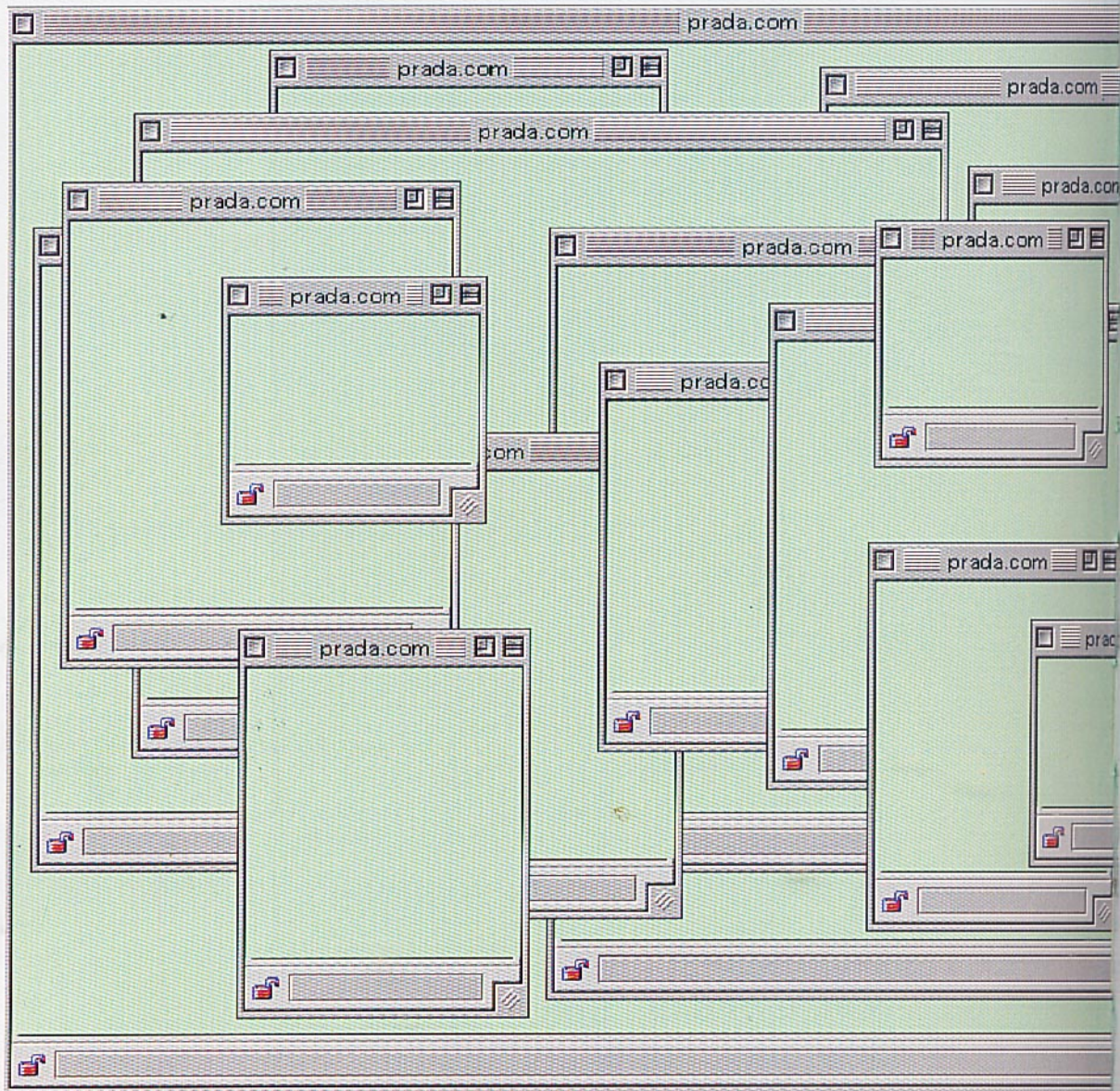


Second Skin

NANCY DALVA DISSECTS
GEOFFREY BEENE

There are fundamental structural decisions to make, and the first one is where to put the zipper. — Thomas Harris, *The Silence of the Lambs*

DANCE INK: SECOND SKIN
Magazine, 1996
Designer: Abbott Miller
Photographer: Jack Deutsch
Publisher: Patsy Tarr
Like a diagram from an
anatomy book, the typography
maps the body seen through
the skin of the page.



PRADA PROTOTYPE
Concept for Web site
Design: 2x4, New York

GRID

HISTORIA NATURALIS
Book, 1472; printed by
Nicolas Jenson, Venice
Collection of the Walters Art
Museum, Baltimore
*During the first century of
printing, the French-born
printer Nicolas Jenson
established a printing business
in Venice, a thriving commercial
center. This book features an
elegant, unbroken text block set
in one of the first roman
typefaces. The page has no line
breaks or indents.*

Plauti fabulae sunt iudicio. Sanguine canino contra toxica nihil perstantius putatur.
Vomitiones quoque hoc animal mouisse uidetur. Et alios usus ex eo mire laudatos
referemus suis locis. Nunc ad statum ordinem pergemus. Aduersus serpentium ichus
efficacia habentur sumum pecudis recens in uino decoctum illi namque. Mures disiecti
et impositi quoque natura non est spernenda praecipue in ascensu syderum ut diximus:
cum lumine lunae fibratum numero crescente atque decrecente. T radit magi nocere
muri dato potus in fico sequi dantem id animal. In homine quoque similiter ualere.
sed resolui cyatho olei potio. Mustelari duo genera. Alterum siluestre. Distat magni-
tudine. Graeci uocant ichides. I haru sel contra aspidas dicitur efficax: cetero uentem.
Hae autem quae in domibus nostris obrantur et catalos suos (ut auctor est Cicero) quon-
die trahuntur: sedem serpentes prosequuntur. Ex ea inueterata sale denari podus
in cyatho tribus datur percussus: aut uentemulus coriandro farrus inueteratuq; et in
uino potus. Et castulus mustelae ena efficax. Quaedam pudenda dicti tanta aucto-
ritate asseruatore commendantur: ut praesente fas non sit. Siquidem illa concredita
rerum aut repugnanti medicinae giuntur. Veluti omium animalis feudissimi: et
dicti quoque falsi diuina natura contra serpentium morsus et praecipue aspidum ualere
dicitur. Item contra uenena omnia. Argumento q; dicit gallinae quo die id edidit no-
stertibi ab aspide. Carnes quoque caru percussa plenum prodesse. Ex his quae tradunt
humanissimum illi uere morsibus cum sanguine testudinis. Item suffitu coru abigere
sanguisugae adherentes: hausta q; ab animalibus restinguere in potu datos. Quiaq;
et oculos quidam is unguunt tuis cum sale et lacte mulierum. Aureq; cum melle
et rosaceo ammittit. Bos qui a gressis sintet in malua nascantur crematos cinere p-
mieno rosaceo insundunt auribus. Cetera quae de his traduntur uomice et quartanaru
remedia: alioruq; morboru quiaq; ouo aut cera aut faba inclusos censent deos ados
falsa nec referenda arbitror. Lethargi tamen medicinae cum argumento adhibenti
quoniam uncatu aspidum somnifera us. septenos cyatho aquae dantes puerilibus
annus quateros. Et strangulae fistulae q; inposuere adeo nihil illa rerum omnium
patens sine ingentibus caulis genuit. Quim et adalgatas leuo brachio binos lana
fibrepta palatibus resistere nocturnis febribus prodiderunt: edimus in rosaceo panno.
Rursum aduersus facie scolopendri suffituq; necat. Aspides percussos corpore & som-
no necant: omnium serpentium minime sanabis. Sed et uentem earum si sanguis
attingatur recens uulnus statim sanant. Inueteratu ulcus tardius. De cetero potu
quantalibet copia non nocet. Non enim est rabifica uis: itaq; occisa morsu earum
animalia obis innoxia sunt. Contra in profuendo exiis remedia nisi. M. Varrone
forem. Iccoxa. uix anno prodidisse aspidu ichus efficacissime curari hausta a passis
iporum urina. Basaltes quem etiam serpentes ipsi fugunt alius olfactu necantem:
qui hominem uel si aspiciat tantum dicitur interuenere sanguinem magi miris laudib;
bus celebrant coenentem pice modo et colore diluam cinnabari clariorum fieri. Tri-
buunt et et successus pettoorum a potestantibus: a die etiam precum: morborum
remedia beneficiorum munere. Quia uel Sanitum sanguinem appellant. Draco no-
habet uenena. Caput eius linitu amaranthi subditum propitiatu oratione diei formi/
natam domum facere prominentur. Oculis eius sueratus et cum melle tritu iunctis
non pauescere ad nocturnas imagines etiam pauidos cordis. Pingue in pelle dorcardu
neris tenuis adaligatum in lacerto censere iudiciorum uisionem. Demit spedy
lum aditus potestatum muliere. Dentes eius illigatos pellibus caprarum certum
nerus imites pestilare dominos: potestatesq; e uolabiles. Sed super omnia est copos-
tio quo inuictos faciunt magorum mendacia. Cauda draconis et capite uilis leonis
e fronte et medulla uulsi equi uictoris spuma canis unguibus adalligatis certum
conuenerit q; cerui alternatis et dorcardis. Quae arguisse non minus referri: contra
serpentes remedia demonstrasse quoniam hae morborum beneficia sunt. Draconis

GRID

A GRID BREAKS SPACE OR TIME INTO REGULAR UNITS. A grid can be simple or complex, specific or generic, tightly defined or loosely interpreted. Typographic grids are all about control. They establish a system for arranging content within the space of page, screen, or built environment. Designed in response to the internal pressures of content (text, image, data) and the outer edge or frame (page, screen, window), an effective grid is not a rigid formula but a flexible and resilient structure, a skeleton that moves in concert with the muscular mass of information.

Grids belong to the technological framework of typography, from the concrete modularity of letterpress to the ubiquitous rulers, guides, and coordinate systems of graphics applications. Although software generates illusions of smooth curves and continuous tones, every digital image or mark is constructed—ultimately—from a grid of neatly bounded blocks. The ubiquitous language of the GUI (graphical user interface) creates a gridded space in which windows overlay windows in a haphazard way.

In addition to their place in the background of design production, grids have become explicit theoretical tools. Avant-garde designers in the 1910s and 1920s exposed the mechanical grid of letterpress, bringing it to the polemical surface of the page. In Switzerland after World War II, graphic designers built a total design methodology around the typographic grid, hoping to construct with it a new and rational social order.

The grid has evolved across centuries of typographic development. For graphic designers, grids are carefully honed intellectual devices, infused with ideology and ambition, and they are the inescapable mesh that filters, at some level of resolution, nearly every system of writing and reproduction.

capillis. Inq̄ manus charte nodosaq̄ venit harundo.
Purpureus. l. color purpureo picturatis. purpura aut
by sanguis est color. Finalibz. l. capitulibz. i. grossi lit
teris. sicut solent fieri in finibus librorz i. dō. p̄p̄ grossitatem
l̄te possunt onera q̄ codicis. Et vncialibz. l. vnciā auri

libros v̄l in mēb̄anis pur
purtis auro argētoq̄ de
scriptos: vel vncialibus vt
vulgo aiunt. s̄is onera ma
gis exarata q̄ codices: dū
mō mihi meliq̄ permittat
paupes habere scdulas z
nō t̄mpulcros codices q̄
emendatos. Ultraq̄ autez
editio et septuaginta iuxta
grecos: et mea iuxta hebre
os: in latinum meo labore
trāsllata ē. Ligat v̄nūq̄sq̄
q̄ vult z studiosū me ma
gis q̄ maluolum probet.

Incipit argumentum in
librum Job.

In terra q̄dem bitasse
iob v̄sudu i finibz? idu
meez arabie: et erat ei
ante nomen iobabl. Et acce
pit v̄rorē arabissam: et ge
nuit filium quez vocauit en
nō. Erat autē ip̄e filius iū
de zareth de esau filius iū
de matreho dostra: ita vt sit
quintus ab abraham. Et hi
sunt reges qui regnauerūt
in edom. in q̄ et ip̄e regna
uit: sed p̄m? ica regnauit
balach filius beoz: z nomē
ciusdez ciuitatis nachaba.
Post hunc autem balach.
Post eum iob ab: qui voca
tur iob. Post iob autez cuf
ram qui erat dux ex thēma
nouz regione. Et post illū
regnauit adar filius beath
qui exiit iudiam in cam
pō moab: et nomen ciuita
tis eius cetheauith.

Explicit argumentum.

Explicit qualicumq̄ expositio istius prologi.

Postilla Nicolai de lyra super Job incipit.

Attentiā habet in me z omnia reddā nōi Marbet
p̄ v̄nū. q̄ntis verbū. postū seruibā serui ad dñm
tū p̄r accipi ecōuerso: vt sit v̄bū dei ad sanctuz
iob seruū suū. q̄. p̄r cōtētiōē fidelitū ad deū tū
q̄ membroz: ad caput suū. q̄ dicit de v̄no p̄r intellit d̄ ad
tēro z ecōuerso. sicut dicit. it. ois dixit. saule saule q̄d me p̄
sequeris: ita q̄ p̄secutiōē fidelitū dixit suū: z ecōuerso pau
lus ap̄s ad Gal. ij. dixit d. hūmo p̄ncipis sajz cruci passiōē
sū capitis suū dicitō p̄ passiōē z imitationē. Sic iḡl̄ vt
bū passūm p̄ncipit potest accipi: vt sit verbus dei ad
sanctū iob sibi p̄ fidē in corp̄. in q̄ quidē verbo duo no
tānt in q̄bus p̄ccūsus iustitū z materia p̄nitent. s̄mū est
sancti iob stabilitas in aduersitate dicit. P̄nitentiā habe
scundū ē dei liberalitas in p̄mis reddēdis: cui d̄. Et ois
reddā tibi. v̄n d̄. j. v̄l. ca. Dñs autē b̄t dicit nouissimū iob
magis q̄ p̄ncipio q̄. z de v̄no s̄mō p̄r accipi illud. Ec
cl̄ast. j. ca. Esq̄ ip̄s sustinebit panēs z postea reddēto iō
cūditatis. q̄s autē sustinēdū patēt ē v̄sū ad terminū dñi
n̄ b̄i placitū q̄d fecit iob. vt parit̄ ex decursu libri z secūda
ē reditio locūditatis. q̄ de? sibi v̄p̄lucitū p̄nt bona ter
rena. z in futuro sibi restituit celestia. de p̄ autē. de patē
tia iob in aduerso agit in b̄ libro a p̄ncipio v̄sū ad v̄nū
ca. excludit. de sebo. s̄c de v̄tina remūeratione agit v̄l. ca.
sic magis videb̄ inferi in lib̄a d̄uisione dñi concedēte.
Dicit autē v̄sū d̄am? ad litterā exponēdā v̄no sunt p̄
nitēdā. p̄mū ē v̄rū illud q̄ in hoc libro ē tractatū sūt
parabola v̄l res gesta. Ad q̄ dicitur aliq̄ iudex q̄ ē para
bola: z q̄ moyses scripsit libz istū: v̄r habet in libro q̄ ap̄d
hebreos ē babababā. z ad declarandā conditiōē v̄rū
tis patētē z et? retributiōē sicut hōiem noie Job multū
p̄sēt flagellatū. z amicos et? ad p̄solandū eum venerūt
numeros ad oppositū. ad ostēdendū q̄ iniquū. z p̄ peccā
tū p̄nitens a deo merito flagellatū. s̄m q̄ iob respondēt
tandē obsecratiōibz? eoz subindiget. sicut auctoz libellū quē
incipit. Et iob p̄ tertas ē. ad declarandū antitēdā sacre
scripturē z et? veritatē respectu fictionū: p̄ora p̄nitēt v̄nā
v̄sū ḡnē noie at̄ba q̄d nomen iū greco veritatē signat
in latino: z quēdā pastorē cui? nomē p̄tū d̄s. i. salus v̄l sal
sitas in greco adiuuatē v̄sū p̄tū de sacre scripturē hysto
rijs z p̄ortatū fabulis. Sed b̄ dicit nō videt sacre scripturē
re p̄sonā. p̄mō. q̄ in p̄ncipio hūi? v̄sū exp̄m̄tū eius pa
triamotes: possessiōes. et proles tāq̄ d̄e res gesta exp̄m̄s
cōditiones z s̄r loquit. i. de amicis iob. Item Eccl̄. xij.
dicit ex p̄sona dei. S̄i fuerint treas v̄i isti in medio et? noē
daniel: iob: isti iusticia sua liberabūt aias suas. certū ē au
tē noē z danielē fuisse hoies veros in rerū natura. Et quo
p̄clud? idē fuisse de iob a deo cis cōnumerato. Item Jaco.
v. Ecce beatū cam? eoz q̄ sustinuerūt. sufficientiā iob audē
tia. z h̄nē d̄i viditū. et. ex? i credēdū ē iob fuisse verū
hōiē in rerū natura: sicut ip̄s verus hō passus ē in na
tura hūana secūdū aū p̄nitendū ē de inenitēte ē in na
tura. q̄ et hoc dependet intellectū? hūi? libz. Ad q̄ plenū
intelligendū. sciendū q̄ aliq̄ antiquū p̄i dei p̄nitentiā
negauerūt: sicut democritus z ep̄curi nēces mundi esse
factū a calu. ali? v̄o licet v̄tē eum in corruptibilia z super
ora regi diuina. p̄uditā ab h̄rū excluderunt inferioza cor
ruptibilia. ex quo? p̄sona d̄. j. xvi. z. ubi lotibulū eius
z circa cardines celi pambulat: nec nostra p̄siderat. ali? v̄o
corruptibilia q̄ eius natura p̄sentur. dicit regi diuina
p̄udentia tū ab hoc excepit actus hūanos ex libro ar
bitrio. p̄cedētes. de q̄bus d̄ null? fuisse z b̄ inter alia mo
uebat ad hoc. q̄ nō videb̄t qualiter in fallibilia diuine
p̄udentie staret cum liberi arbitrii veritūitate. Item q̄s
videbant vt frequētē malos hominē p̄p̄erāt z bonos
tribularē: quod nō videbant conueniē. p̄nitentiē tū in q̄
tū persona dicit Boetius. j. de cōsolatione. loquens ad do
minū. Omnia certo hinc gubernas: hominū solos respis
actus. Sed hoc tēctum est fidet moribus contrariū: quia
tollit penas z p̄mia a deo. p̄ demeritis et meritis reddēdis
z p̄ pio timōe dei patit̄ z amōre. p̄pter q̄ dicit b̄t. fā.

Alte.

Scilicet.

Scilicet.

Num.

Alte.

LATIN BIBLE (LEFT)
Book page, 1497
Printed by
Anton Koberger
A two-column grid engulfs
a second set of columns.
Each page is a dense mass
incised with narrow gutters
and open spaces where
illuminated capitals would
have been added by hand.
The layout changes from
page to page.

GRID AS FRAME

Alphabetic writing, like most writing systems, is organized into columns and rows of characters. Whereas handwriting flows into connected lines, the mechanics of metal type impose a stricter order. Each letter occupies its own block, and the letters congregate in orderly rectangles. Stored in gridded cases, the characters become an archive of elements, a matrix of existing forms from which each page is composed.

Until the twentieth century, grids served as frames for fields of text. The margins of a classical book page create a pristine barrier around a flush, solid block of text. A page dominated by a solitary field of type remains today's most common book format, although that perfect rectangle is now broken with indents and line breaks, and the margins are peppered with page numbers and running heads (text indicating the book or chapter title).

In addition to the classical norm of the single-column page, various alternative layouts existed during the first centuries of printing, from the two-column grid of Gutenberg's Bible to more elaborate layouts derived from the medieval scribal tradition, where passages of scripture are surrounded by scholarly commentary. Polyglot (multilingual) books display a text in several languages simultaneously, demanding complex divisions of the surface.

Such formats permit multiple streams of text to coexist while defending the sovereignty of the page-as-frame. The philosopher Jacques Derrida has described the frame in Western art as a form that seems to be separate from the work yet is necessary for marking its difference from everyday life. A frame or pedestal elevates the work, removing it from the realm of the ordinary. The work thus depends on the frame for its status and visibility.

Typography is, by and large, an art of framing, a form designed to melt away as it yields itself to content. Designers focus much of their energy on margins, edges, and empty spaces, elements that oscillate between present and absent, visible and invisible. With print's ascent, margins became the user interface of the book, providing space for page numbers, running heads, commentary, notes, and ornaments.

The frame...disappears, buries itself, effaces itself, melts away at the moment it deploys its greatest energy. The frame is in no way a background...but neither is its thickness as margin a figure. Or at least it is a figure that comes away of its own accord. Jacques Derrida, 1987

CHAPITRE SECOND.

I. La colonne de Pompée. II. On ne convient pas sur ses mesures. III. Colonne d'Alexandre Severe.

LA fameuse colonne de Pompée est auprès d'Alexandrie : on ne fait pour quelle raison elle porte le nom de Pompée ; je croirois volontiers que c'est par quelque erreur populaire. Plusieurs voyageurs en ont parlé, tous conviennent qu'elle est d'une grandeur énorme. Deux des plus modernes en ont donné le dessin & les mesures ; mais ils diffèrent considérablement entre eux sur la hauteur du piedestal, de la colonne & du chapiteau : cependant tous deux disent qu'ils l'ont mesurée.

„ Pour ce qui est de la colonne, dit l'un, (c'est Corneille Brun p. 241.)
 „ elle est sur un piedestal quarté, haut de sept ou huit pieds & large de qua-
 „ torze à chacune de ses faces. Ce piedestal est posé sur une base carrée,
 „ haute d'environ un demi pied, & large de vingt, faite de plusieurs pierres
 „ maçonnées ensemble. Le corps de la colonne même n'est que d'une seule
 „ pierre, que quelques-uns croient être de granit ; d'autres disent que c'est
 „ une espèce de pâte ou de ciment, qui avec le tems a pris la forme de pierre.
 „ Pour moi je croi que c'est une vraie pierre de taille, du moins autant que
 „ j'ai pu le reconnoître par l'épreuve que j'en ai faite. Et si cela est vrai, com-
 „ me personne presque n'en doute, il y a sujet de s'étonner comment on a
 „ pu dresser une pierre de cette grandeur : car après l'avoir mesurée, j'ai trou-
 „ vé qu'elle a quatre-vingt-dix pieds de haut, & que sa grosseur est telle, que
 „ six hommes peuvent à peine l'embrasser ; ce qui revient, selon la mesure
 „ que j'en ai prise, à trente-huit pieds. Au haut il y a un beau chapiteau pro-
 „ portionné à la grosseur de la colonne, mais fait d'une pièce séparée.

L'autre, qui est M. Paul Lucas, en parle en cette manière : „ Un de mes
 „ premiers soins fut d'aller examiner la colonne de Pompée, qui est près d'A-
 „ lexandrie du côté du couchant, & je croi qu'il seroit difficile de rien ajou-

CAPUT SECUNDUM.

I. Columna Pompeii. II. De ejus mensuris non conveniunt inter eos qui hæc loca allerunt. III. Columna Alexandri Severi.

Celeberrima est illa Pompeii columna prope Alexandriam erigitur. Cui Pompeii columnam vocent, ignoratur. Libenter crederem hujusmodi denominationem ex populari errore mansisse. Ex peregrinationibus nostris enotatis magnitudinis esse narravi. Dum recentiores et figuram & mensuras desiderant, ad inter illos non convenit de stylobate, columnæ & capitelli magnitudine. Atamen arithmetici se mensuras excepisse.

Quantum ad columnam, inquit Corneilius Brunus p. 241, ea inscripta est quadrato stylobate ne cujus altitudo est licet octavo pedum, latera vero singulis in facibus sunt quadrato pedum. Stylobates autem ille quadrato basi in-

„ ponitur, altitudine dimidii pedis, ex lapidibus
 „ plurimis structa basis est, longitudinis circumscribitur
 „ equaque viginti pedes habens. Columna ex uno
 „ lapide est, plurimi putant ex marmore quibus
 „ esse, alii vero quasi carmentum & confectum
 „ munitum esse, que procedente tempore, latera
 „ lapidis sumunt. Puto ego esse lapidem quantum
 „ saltem experiri licuit. Quod si ita sit, id autem
 „ nemo hodie in ducibus vocat; plane mirum
 „ quo pacto tantum lapidem erigere poterant.
 „ Nam cum mensuram dassetis, nonnulla pedes
 „ altitudinis habere compertum, tantaque ejus est spi-
 „ rando, ut sex viri simul vix illum amplecti pos-
 „ sent, id quod ad menturam a me summas redu-
 „ citur, circuitus enim ejus est triginta & octo
 „ pedum. In columnæ capitellum est ex uno lapide
 „ levatur columnæ proportionem.

Alius, nempe Paulus Lucas, columnam sic describit, „ Ubi præsumunt ponti columnam Pompeii adiri, que prope Alexandriam est vestis occidentem. Difficile autem est ejus mensuras

SUPPLEMENT AU LIVRE DE L'ANTIQUITÉ (LEFT) Book, Paris, 1724

The two-column grid devised for this bilingual book provides a large, single-column block for the French text, with two columns below for the Latin. The quotation marks serve as a frame along the left edge of the quoted passage.

THE ILLUSTRATED LONDON NEWS (RIGHT) Newspaper page, 1861

Early newspaper advertisements were designed by the paper's printer, not supplied by the client or an advertising agency. This dense field of entries occupies a four-column grid, with ruled lines to create order.

DIVIDING SPACE

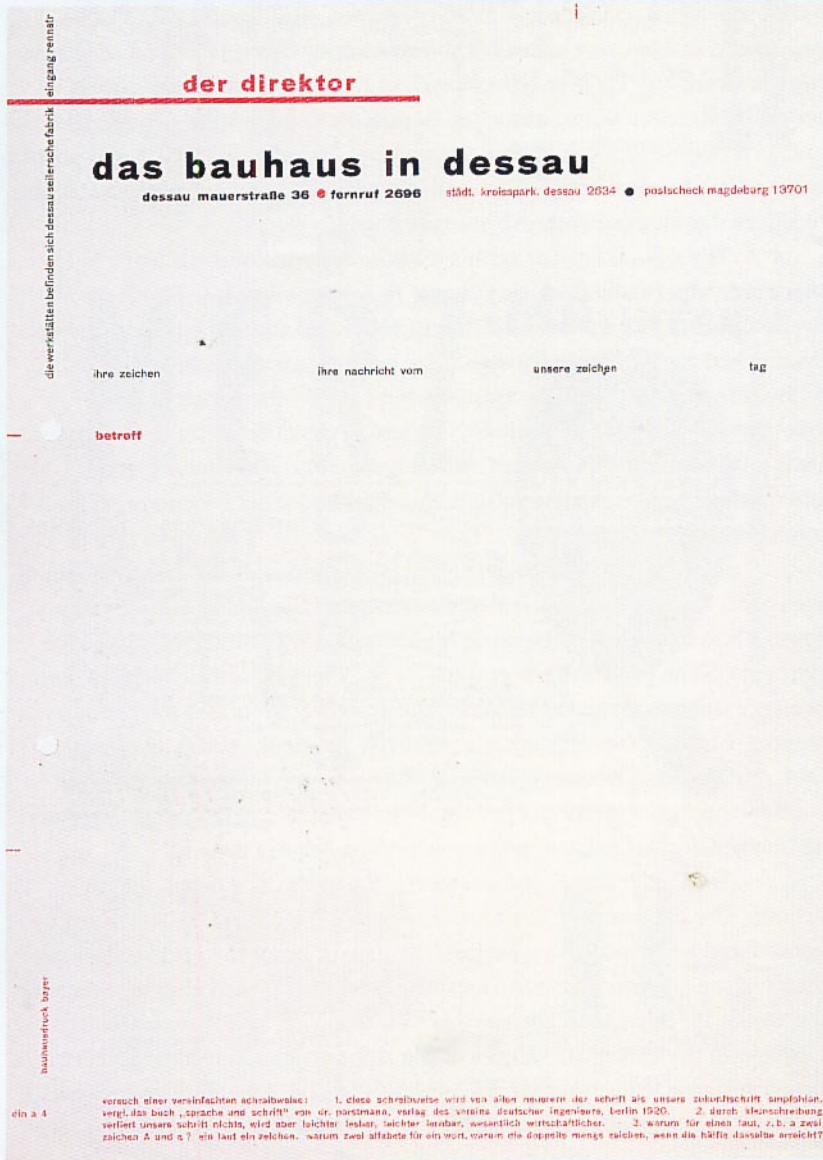
In the nineteenth century, the multi-columned, multimedia pages of newspapers and magazines challenged the supremacy of the book and its insular edge, making way for new typologies of the grid. By questioning the protective function of the frame, modern artists and designers unleashed the grid as a flexible, critical, and systematic tool. Avant-garde artists and poets attacked the barriers between art and everyday life, creating new objects and practices that merged with urban experience.

The assault against print's traditional syntax was led by F. T. Marinetti, who established the Futurist movement in 1909. Marinetti devised poems that combined different styles and sizes of type and allowed lines of text to span multiple rows. Marinetti's ingenious manipulations of the printing process work against—but inside—the constraints of letterpress, exposing the technological grid even while trying to overturn it. Dada artists and poets performed similar typographic experiments, using letterpress printing as well as collage, montage, and various forms of photo-mechanical reproduction.

Constructivism, which originated in the Soviet Union at the end of the 1910s, built on Futurist and Dada typography, bringing a more rational approach to the attack on typographic tradition. El Lissitzky employed the elements of the print shop to emphasize the mechanics of letterpress, using printer's rules to make the technological matrix actively and physically present. Constructivism used rules to divide space, throwing its symmetry into a new kind of balance. The page was no longer a fixed, hierarchical window through which content might be viewed, but an expanse that could be mapped and articulated, a space extending beyond the edge.

For Dutch artists and designers, the grid was a gateway to the infinite. The paintings of Piet Mondrian, their abstract surfaces crossed by vertical and horizontal lines, suggest the expansion of the grid beyond the limits of the canvas. Theo van Doesburg, Piet Zwart, and other members of the Dutch De Stijl group applied this idea to design and typography. Converting the curves and angles of the alphabet into perpendicular systems, they forced the letter through the mesh of the grid. Like the Constructivists, they used vertical and horizontal bars to structure the surface of the page.

Typography is mostly an act of dividing a limited surface. Willi Baumeister, 1923



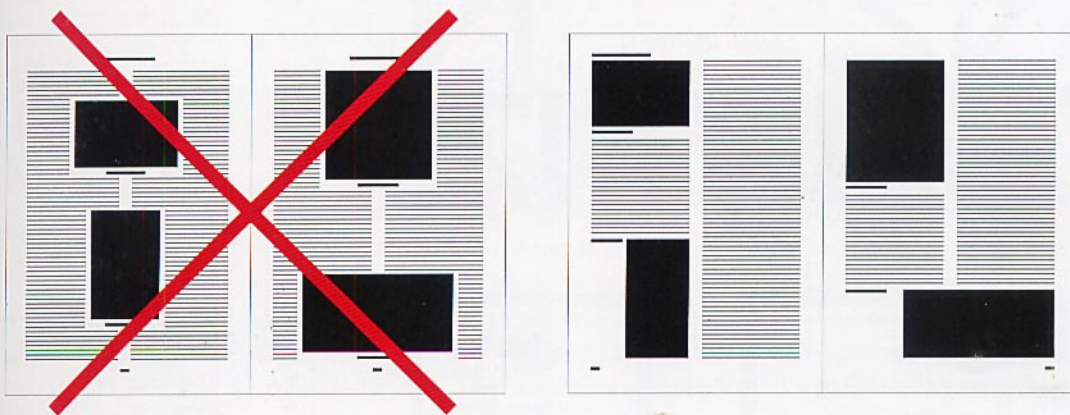
DAS BAUHAUS IN DESSAU
Letterhead, 1924
Designer: Herbert Bayer
Collection of Elaine Lustig
Cohen

Herbert Bayer's letterheads for the Bauhaus are manifestos for a new typographic order. Rather than provide a decorative frame or a centered title, Bayer treated the entire page as a surface to be divided. Points, short hatches, and lines of type indicate axes for folding the sheet and positioning text. This letterhead also promotes Bayer's idea that all letters should be lowercase, a point expounded in small print across the bottom.

The new typography not only contests the classical “framework” but also the whole principle of symmetry. Paul Renner, 1931

Jan Tschichold's book *The New Typography*, published in Germany in 1928, took ideas from Futurism, Constructivism, and De Stijl and conveyed them as practical advice for commercial printers and designers. Functionally zoned letterheads using standard paper sizes were central to Tschichold's practical application of modernism. Whereas Futurism and Dada had aggressively attacked convention, Tschichold advocated design as a means of discipline and order, and he began to theorize the grid as a modular system based on standard measures.

By describing the expansion of space in all directions, the modern grid slipped past the classical frame of the page. Similarly, modern architecture had displaced the centered facades of classical building with broken planes, modular elements, and continuous ribbons of windows.

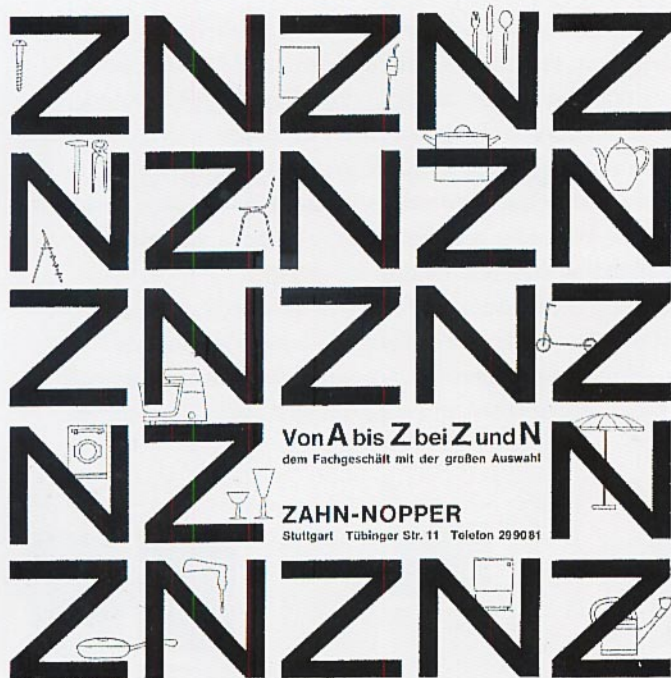


THE NEW TYPOGRAPHY
Diagram, 1928
(redrawn)
Designer and author:
Jan Tschichold

Tschichold's diagram of good and bad magazine design advocates staggering images in relation to content instead of forcing text to wrap around blocks moored at the center of the page. Explaining this experiment, Tschichold wrote that his redesigned pages would be even more effective if the photographic halftones (called "blocks") were produced in fixed rather than arbitrary sizes.

I have intentionally shown blocks of different and "accidental" widths, since this is what usually has to be contended with (although in the future, with standard block-sizes, it will happen less often).

Jan Tschichold, 1928



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ZAHN-NOPPER
Store identity, 1961-63
Designer: Jochen Stankowski
This identity system demonstrates a programmatic approach to design, using a limited set of elements to construct diverse yet genetically linked solutions. The system is not grounded is governed by flexible rules for construction rather than a fixed logotype.

GRID AS PROGRAM

Classics of Swiss design theory include Josef Müller-Brockmann, *Grid Systems in Graphic Design* (Switzerland: Ram Publications, 1996; first published in 1961) and *The Graphic Artist and his Design Problems* (Switzerland: Arthur Niggli Ltd., 1961); and Karl Gerstner, *Designing Programmes* (Switzerland: Arthur Niggli, 1964). See also Emil Ruder, *Typography* (New York: Hastings House, 1981, first published in 1967).

During the post–World War II period, graphic designers in Switzerland honed ideas from the New Typography into a total design methodology. It was at this time that the term “grid” (*raster*) became commonly applied to page layout. Max Bill, Karl Gerstner, Josef Müller-Brockmann, Emil Ruder, and others were practitioners and theorists of a new rationalism that aimed to catalyze an honest and democratic society. Rejecting the artistic clichés of self expression and raw intuition, they aspired to what Ruder called “a cool and fascinating beauty.”

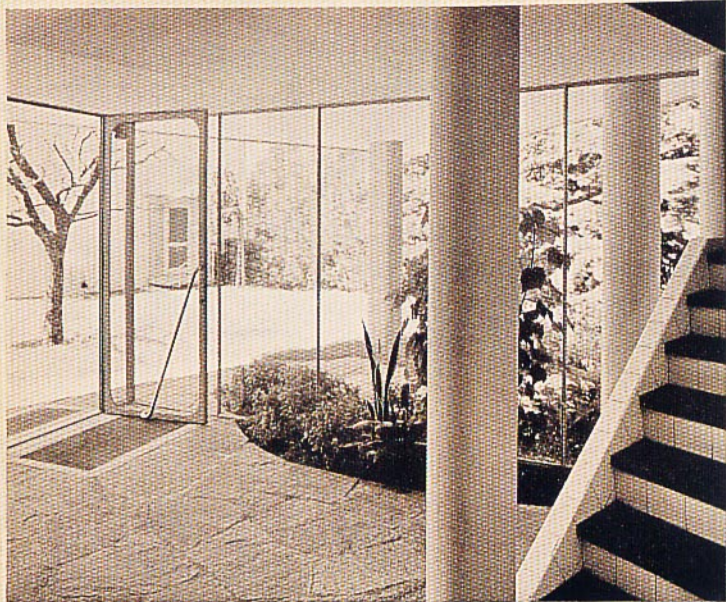
— Karl Gerstner’s book *Designing Programmes* (1964) is a manifesto for systems-oriented design. Gerstner defined a design “programme” as a set of rules for constructing a range of visual solutions. Connecting his methodology with the new field of computer programming, Gerstner presented examples of computer-generated patterns that were made by mathematically describing visual elements and combining them according to simple rules.

Expanding on the pioneering ideas of Bayer, Tschichold, Renner, and other designers of the avant garde, the Swiss rationalists rejected the centuries-old model of the page-as-frame in favor of a continuous architectural space. Whereas a traditional book would have placed captions, commentary, and folios within a protective margin, the rationalist grid cut the page into multiple columns, each bearing equal weight within the whole, suggesting an indefinite progression outward. Pictures were cropped to fit the modules of the grid, yielding shapes of unusual proportion. Constructing ever more elaborate grids, the Swiss designers used the confines of a repeated structure to generate variation and surprise. Such grids could be activated in numerous ways within a single publication, always referring back to the root structure.

This approach, which quickly became known as “Swiss design,” found adherents (and detractors) around the world. Many American designers dismissed Swiss rationalism as irrelevant to a society driven by pop culture and hungry for rapidly transforming styles. Programmatic thinking is now being revived, however, as designers today confront large-scale information projects. The need is greater than ever for flexible “programs” accommodating dynamic bodies of content.

The typographic grid is a proportional regulator for composition, tables, pictures, etc.... The difficulty is: to find the balance, the maximum of conformity to a rule with the maximum of freedom. Or: the maximum of constants with the greatest possible variability.

Karl Gerstner, 1961



14. Eingangshalle

2 Mehrfamilienhäuser im Doldertal Zürich

Räumliche Organisation

Situation: Die beiden Mehrfamilienhäuser liegen im Villenviertel, auf halber Höhe des westwärts abfallenden „Zürichberg“ [4]. Längs dem Grundstück verläuft auf der Nordwestseite eine öffentliche Parkanlage mit einem dichten Baumbestand. Die Zufahrtsstrasse genannt „Doldertal“ hat ein Gefälle von 10% und ist nicht durchgehend. Die Schräglage der Blöcke zur Baulinie ergibt eine verbesserte Südlage für die Wohnräume, eine Abdehnung der Schlafräume von der Strasse und eine lockere Gesamtanlage, ohne gegenüberliegende Schmalsteilen. [5] (Siehe auch baugesetzliche Sonderheiten.)

Raumprogramm: Es ist versucht worden, die Vorzüge des Einfamilienhauses soweit als möglich auf die Eigenwohnung zu übertragen (freies, schallreduziertes Wohnen, Einbeziehung der Landschaft, grosse Wohlerassen, weitgehende innere Ausstattung). Im Untergeschoss: gedeckter Vorplatz mit zwei Garagen, Eingangshalle mit Treppenaufgang, Abstellräume, Vorratskeller, Waschküche und Trockenraum, die beiden letzteren nur im unteren Haus. Unter der Eingangshalle mit besonderem Eingang [8] liegen Heizung und Kohlenraum. Im Parterre: eine vierzimmerige Wohnung mit Mädchenzimmer und ein Einzimmer-Apartment mit direktem Eingang vom Garten. Im Obergeschoss: eine 5/0-Zimmerwohnung mit Mädchenzimmer. Zu dieser

2 Mehrfamilienhäuser im Doldertal Zürich

Wohnung gehört noch ein auf Höhe Dachgeschoss liegendes Sonnenbad [12] (16), durch eine Eisentreppe von der Terrasse erreichbar. In beiden Wohnungen liegen Treppe und Küche ausserhalb der eigentlichen Wohnfläche (Schallsolotrennung); dennoch hat die Küche eine betriebstechnisch zentrale Lage (Verbindung mit der Terrasse, je eine Durchreiche nach Essplatz und Treppenhaus). Im Dachgeschoss ein grosses und ein kleines Atelier, Abstellräume im Treppenbau.

Technische Durchbildung

(vgl. Technische Details)

Konstruktionsprinzip: Eisenskelet, Eisenbeton-Zwischendecken, Fassadenausmauerung mit gebrannten Hohlsteinen, hintermauert mit Gipsdämmen. Die Fassaden sind konstruktiv von den Zwischendecken getrennt. Das zurückgesetzte Dachgeschoss besteht aus Holz mit einer äusseren Eierkuchenabdichtung. Zur Fertigstellung des Aussen sind ausschliesslich Materialien mit unterhaltsloser Oberfläche verwendet worden: Edelputz (wulstiger Zement, Natursteinputz), ohne Farbgebung; Eternit für Rolllädenkasten, Brüllungen, Sonnen-Storen-Vordach und Dachgeschoßüberbau; lackiertes Holz für Rollläden und Gorgentiere; Kupfer für sämtliche Sprinklerarmaturen; feuerverzinktes Eisen für Fensterbleche, Geländer. Getrichlen sind lediglich die Fenster und gewisse Metallteile aus architektonischen Gründen. Fensterflächen: Horizontal-Schiebefenster in Föhrenholz in den Woh-

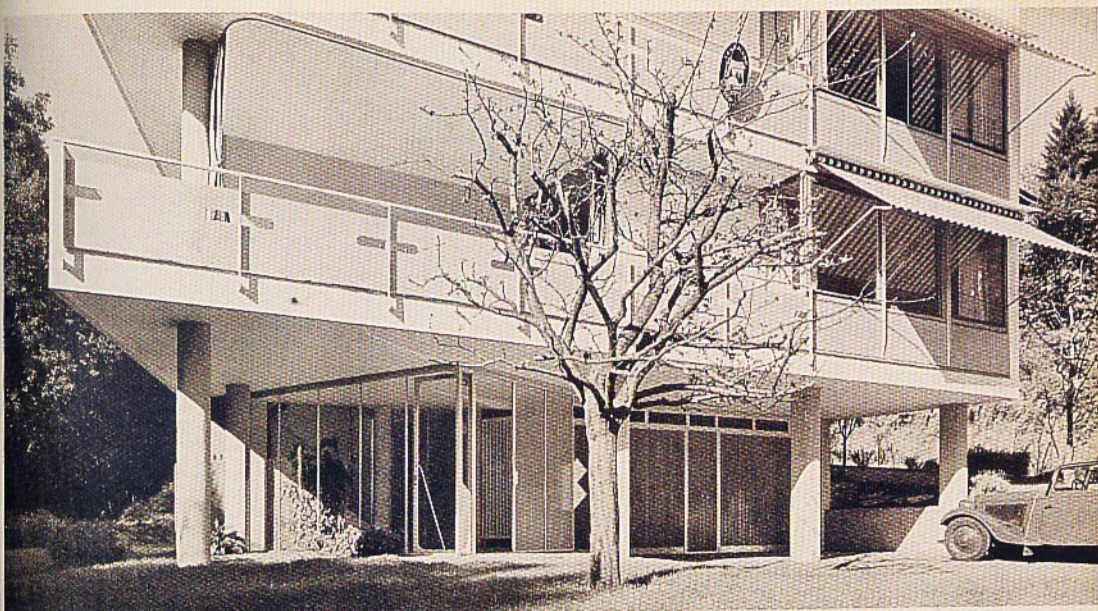
52



15. Treppe

nungen. Grösse des Normalfensters 210 x 120 cm, zusammengebaut mit dem Rolllädenkasten; fester Teil einwärts klappbar zum Putzputz. Die Schieberfenster des Wohnraumes sind mit der Brüstung zusammengebaut (vgl. [21], [22], [23]). Die Küchenfenster sind doppelt, die übrigen Fenster am Bau sind einfach verglast. Die Alueller haben durchgehende 45 cm hohe Oberlichter unter der Decke mit Lüftungslappen, sowie gewisse fest verglaste Fenster mit normaler Brüstung. Verglasung: Wohnraumfenster Spiegelglas 477 mm, Atelier-Studiofenster Rohglas, Treppenhausefenster Drehtglas. Sonnenschutz: für die Wohnzimmerfenster vor die Fassade gefaltete Sonnenrollläden [21] (11), für die Schlafzimmer Rollläden. Heizung: Jedes Haus hat seine eigene Warmwasserheizung für Kleinkaliberkessel, die gleichzeitig für die Warmwasserbereitung benutzt wird. Pro Haus ein Warmwasserboiler mit 2000 Liter Inhalt.

Wohnungsausstattung: Die beiden Häuser sind für anspruchsvolle Mieter, jedoch ohne Luxus ausgestattet. Die Zimmer sind dementsprechend geräumig dimensioniert (Wohnraum 35,00 m², Terrasse 20,00 m²). Die Skelettkonstruktion erlaubt jederzeit eine den Wünschen der Mieter entsprechende Variabilität des Grundrisses. Im Wohnraum befindet sich ein offener Kamin und ein breites Fensterbrett für Blumen. Eingebaute Schränke im Korridor, in den Zimmern, kleiner Abstellraum. Fussböden: In den Wohnungen Holzbohlen (Esche im Wohnraum, Eiche in den übrigen Räumen und im Korridor).



16. Teilansicht von Südwest mit Eingang und Garagen

In den Küchen sind Steinzeugplatten, verschwammschale Linoleum; in den Bädern Terrazzo, schwarz, mit weissen Karmarksteinen. Die Treppentritte und Podeste bestehen ebenfalls aus Terrazzo (Tritte fertige Platten, Podeste im Bau gegossen und geschliffen). Die Stufen der Tritte und die Sockel sind mit weissen, hartglänzenden Platten belegt. Wandbehandlung: Gipsverputz in sämtlichen Räumen, Kalk- oder Leinwand gestrichen, mit Ausnahme derselben in den Wohnräumen und Gängen (abgedeckt mit Grundpapier und Leinwandanstrich, oder Ölmalanstrich auf Stoffbespannung). In den Ateliers Verkleidung der Wände in Holzkonstruktion mit Sperrplatten (gewachsene finnische Birke).

In Treppenhäusern: Aussenwand stoffbespannt, mit Ölfarbe gestrichen, innere Brüstungswand geschnitten und Hochglanz mit Ripolin gestrichen; der Handlauf in Eisen, im Feuer wetter emalliert. Fenstersimsen: Diese bestehen in allen Räumen der Wohnungen aus perforierten, 3 cm starken Schieferplatten. Ausstattung der Bäder und Küchen: Grösse des Bades in den Wohnungen 6 m² mit Badwanne, Bidet und zwei Lavabos, W.C. Der Spiegel über den Lavabos ist gegen die falsche Färbung geschützt (Licht auf das Gesicht). Die Küchen sind vollständig ausgestattet, die Durchreiche ins Treppenhäuser und in den Wohn-Essraum, zweifelhafte Aufwaschtisch in Chrom-

nickel-Stahlblech, Kühtischchen, Arbeitsflächen in Ahornholz. Elektrische Beleuchtung: Diese ist in allen Wohn- und Schlafräumen, Gängen, Küchen, Ateliers eine indirekte.

Ökonomische Angaben

Die beiden Häuser sind Privatbesitz von Herrn Dr. S. Gleidon, Zentralsektor der Internationalen Kongresse für Neues Bauen. Die Baukosten inkl. Architektenhonorar betragen: 43,5 Maurerstunden pro m² ungebauten Raumes bei total 1985 m³ pro Haus, offene Halle im Parterre zur Hälfte ungebaut. Die durchschnittlichen Baukosten für normale Wohnbauten in Zürich, ohne besonderen Ausbau, betragen 38 bis 40 Maurerstunden pro m² ungebauten Raumes. (1 Mkld.—Fr. 1.72 1935/36)

Ästhetischer Aufbau

Die Schrägstellung der Blöcke ergibt einerseits eine lockere Gesamtanlage und erhöht andererseits deren plastische Selbständigkeit. Der zweigeschossige Charakter der Häuser (Bauweiseimung der betreffenden Zone) wird durch das Lösen des Baukörpers vom Terrain und durch das Zurücksetzen des Dachgeschosses gewährt. Dieser Eindruck wird verstärkt durch die vom Hauptbau abweichende Konstruktion des Dachgeschosses (Holz und Eternit). In der Südfassade ist durch Weglassen der gemauerten Brüstungen ein äusseres Zusam-

menfassen von Wohnraum und Wohnterrasse erreicht. In der räumlichen Gliederung treten vielfach schräg verlaufende Wände auf, wodurch eine gewisse Auflockerung der Rhythmicität erreicht wird. Die Eingangshalle ganz in Glas hat eine freie Form und lässt den Durchblick in den rückwärtsliegenden Park frei.

Der Garten reicht über die weitgeführten Gartenplatten (Granit) bis zum Treppenaufgang. In den Wohnräumen und Ateliers reichen die Fenster bis zur Decke, in den Schlafräumen ist ein Sturz von 40 cm. In der Dimensionierung von Bauteilen und Ausstattungsdetails ist eine dem beiräufenden Material entsprechende Sparsamkeit sowie eine organische und gepflegte Formgebung beachtet worden.

Materialbehandlung und Farbgebung: Aussen wiken die Baustoffe in ihrer natürlichen Struktur und Farbe: Edelputz (weisser Zement mit roten, schwarzen und glimmernden Steinsplittern), Eternit, lackiertes Holz, Eisenblech feuervernickt, mit Aluminiumfarbe gestrichen. Farbe an folgenden Stellen: Fenesterrahmen dunkelgrau, Geländerrohre, Abdeckbleche weissgrau, die sichtbaren Kellerräume und Säulen sind normal verputzt und hellgrau gestrichen. Im Internen: Die Wände im Treppenhäuser, in den Gängen und Nebenräumen sind weissgrau, ebenso das gesamte Holzwerk, Radiatoren, Leuchten. Die Wände der Wohn- und Schlafräume sind hell getönt (beige, rosa, hellblau, grau). Besondere farbige Akzente kommen weder aussen noch innen vor; es ist damit der wechselnden Bewohnung des Mietshauses Rechnung getragen worden.

DIE NEUE ARCHITEKTUR/
THE NEW ARCHITECTURE
Book, 1940
Designer: Max Bill
Author: Max Roth
Photograph: Dan Meyers

Designed by Max Bill in 1940, this book is considered the first use of a systematic, modular grid. Each image is sized to fit the column structure—as Jan Tschichold had predicted in 1928—filling one, two, or three zones. Acknowledging the originality of its layout, the author credits Bill as “the creator of the typographical structure of the book.”

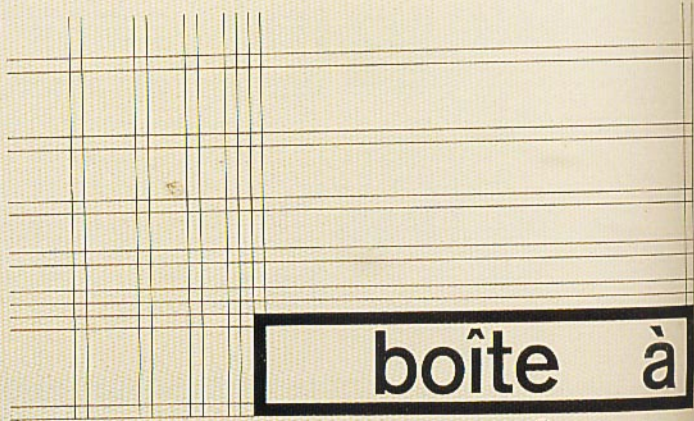
Der New-York-Times-Prospekt zeigt die Lösung einer komplexen Aufgabe; zeigt, wie eine Idee, ein Text und die typographische Darstellung über mehrere Phasen hinweg integriert werden. Darüber hinaus kann sich die Aufgabe stellen, Prospekte wie diesen wiederum mit anderen Werbemitteln und Drucksachen zu integrieren. Denn heute brauchen Firmen mehr und mehr nicht bloss hier einen Prospekt, da ein Plakat, dort Inserate usw. Heute braucht eine Firma etwas anderes: Eine Physiognomie, ein optisches Gesicht.

Die Beispiele dieser Seiten geben die Physiognomie der boîte à musique, eines Grammophongeschäfts in Basel, wieder. Die boîte à musique hat ein Signet und einen firmeneigenen Stil – und doch wiederum, wenn man unter dem einen ein starres, nachträglich überall dazugesetztes Zeichen und unter dem anderen ein bloss ästhetisches Prinzip versteht. Vielmehr: Die einmal definitiv festgelegten, aber jeweils den verschiedenen Funktionen und Proportionen angepassten Elemente selber bilden das Signum und den Stil in einem.

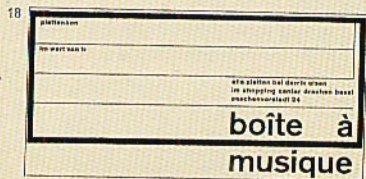
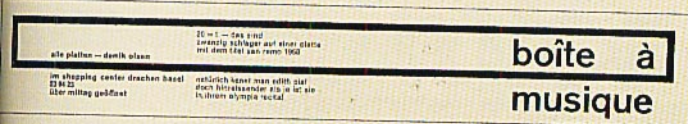
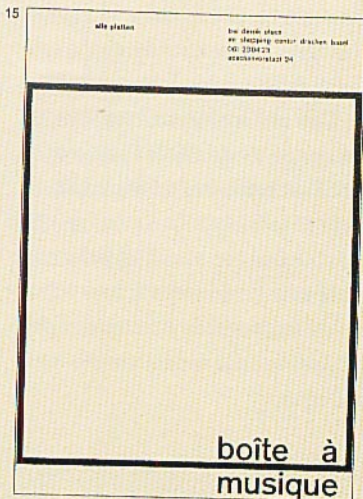
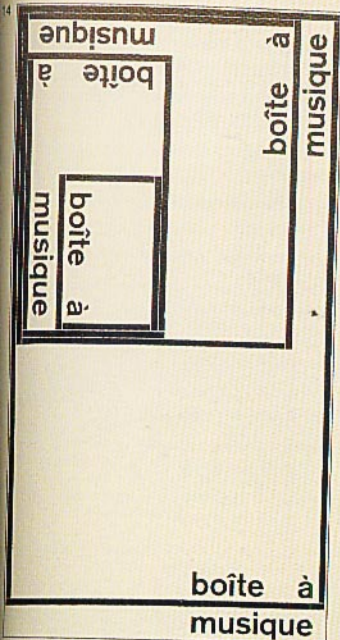
Abbildung 13 zeigt die Struktur. Fixiert sind die Elemente Schrift und Rahmen; ferner die Verbindung von beiden und das Prinzip der Variabilität: der Rahmen kann, ausgehend von der Ecke unten rechts, nach oben sowie nach links beliebig um ganze Einheiten vergrössert werden. Einen in sich proportional hervorragenden Fall gibt es nicht. Es gibt nur wertgleiche Varianten; und hervorragend ist die Variante dann, wenn sie der jeweiligen Aufgabe am besten angemessen ist.

Abbildung 14 zeigt die Neujahrskarte mit gleichzeitig verschieden proportionierten Varianten: 15 den Briefbogen, wo das Signum dem (gegebenen) Din A4 Format angepasst ist; 16 und 17 Inserate, wieder entsprechend dem zur Verfügung stehenden Insertionsraum bemessen; 18 ein Geschenkbon.

13



boîte à
musique



PROGRAMME ENTWERFEN
(DESIGNING PROGRAMS)
Book, 1964
Designer and author:
Karl Gerstner
Publisher: Arthur Niggli
Photograph: Dan Meyers
*Karl Gerstner's book Designing
Programs is a design theory
classic whose relevance has been
renewed in the age of networked
media. Shown here is Gerstner's
identity for Boîte à Musique
(Music Box), in which a system
of elements changes in response
to its context.*

GRID AS TABLE

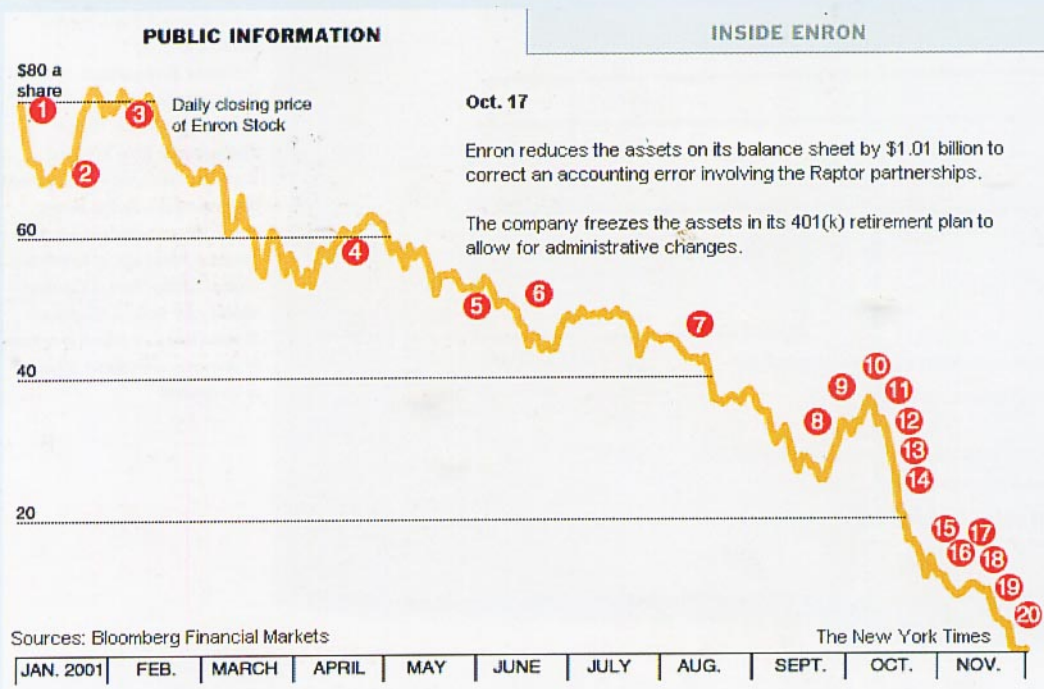
Tables and graphs are a variant of the typographic grid. A table consists of vertical columns and horizontal rows, each cell occupied by data. A graph is a line mapped along the x and y axes of a grid, each dimension representing a variable (such as time and stock value, shown below). As explained by Edward Tufte, the leading critic and theorist of information design, tables and graphs allow relationships among numbers to be perceived and rapidly compared by the eye. In tables and graphs, the grid is a cognitive tool.

Tables are a central aspect of Web design. The table feature was incorporated into HTML code in 1995 so that Web authors could present tabular data. Graphic designers, eager to give shape to the Web's wide and flacid text bodies, quickly devised unauthorized uses for the HTML table, transforming this tool for representing data into nothing more nor less than a typographic grid. Designers have used the table feature to control the placement of images and captions and to build margins, gutters, and multicolumn screens. Designers also use tables to combine multiple styles of alignment—such as flush left and flush right—within a document, and to construct elegantly numbered and bulleted lists.

COLLAPSE OF ENRON (BELOW)
Interactive information graphic, 2002

NYTimes.com; courtesy of The New York Times

This on-line data graphic links a timeline of events leading to the financial collapse of the Enron Corporation with a graph of the company's stock price. As the user's cursor passes over each red circled number, text appears describing an event that occurred at that time. For example, in October the company's CEO froze his employees' 401(k) retirement funds as the company's stock was plummeting.



On the aesthetics and ethics of information design, see Edward Tufte, *Envisioning Information* (Cheshire, Conn.: Graphics Press, 1990).

On designing accessible Web sites, see Patrick Lynch and Sarah Horton, *Web Style Guide: Basic Design Principles for Creating Web Sites* (New Haven: Yale University Press, 2001). See also the site www.webstyleguide.com.

By creating cells that span multiple columns and rows, designers build layout structures that bear little relation to the logically ordered fields of a data chart. A master table typically establishes areas for navigation, content, and site identity, and each region contains a smaller table—or tables—inside itself. Grids propagate inside of grids.

HTML purists reject such workarounds as spurious, even unethical, design tactics. Visually driven, illogical layout tables can cause problems for sight-impaired users, who implement various devices to translate digital pages into sound, cell by cell, row by row. Assistive screen readers “linearize” digital text into a stream of spoken words. Accessibility experts encourage Web designers to “think in linear terms” wherever possible, and to make sure their tables make sense when read in a continuous sequence. Accessible Web sites also consider the needs of users working with older software or text-only browsers. Linear thinking helps not only non-sighted audiences but also the users of cell phones, hand-held digital appliances, and other devices where space is tight and text is dominant.

MICA.EDU

Web site, 2004

Designers: Carton Donofrio
Partners

Publisher: Maryland Institute
College of Art

*HTML tables, with their borders
gently expressed, are an element
of this neatly gridded Web page.*

1. Main Menu 2. Calendar 3. Contact Us 4. Site Map 5. Search 6. Apply Online 7. FAQ's

mica:

MARYLAND INSTITUTE COLLEGE OF ART : NEWS

| DATE | ITEM |
|----------|---|
| 04.16.04 | MICA Sculpture Faculty Member Michael Rakovitz Launches Book >>> |
| 04.12.04 | Designers Flaunt Their Fashions at MICA's Annual Fashion Show on April 24 >>> |
| 04.12.04 | Third in MICA's Annual Series of Graduate Thesis Exhibitions Showcases Twelve Artists and a Group Show from Four of MICA's Graduate Programs >>> |

one of five paintings from senior thesis

a.

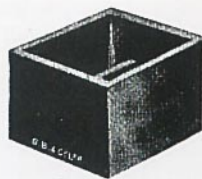
BEYOND HTML

HTML, the technology that allowed the Internet to become a global mass medium, is the virtual counterpart to letterpress, which mechanized the production of the book and cleared the ground for a world culture of print. Like letterpress, HTML is a text-hungry medium that can be coaxed, with some resistance, to display images. It is fundamentally driven by text, from its open, readable source code to the type of content it is designed to display.

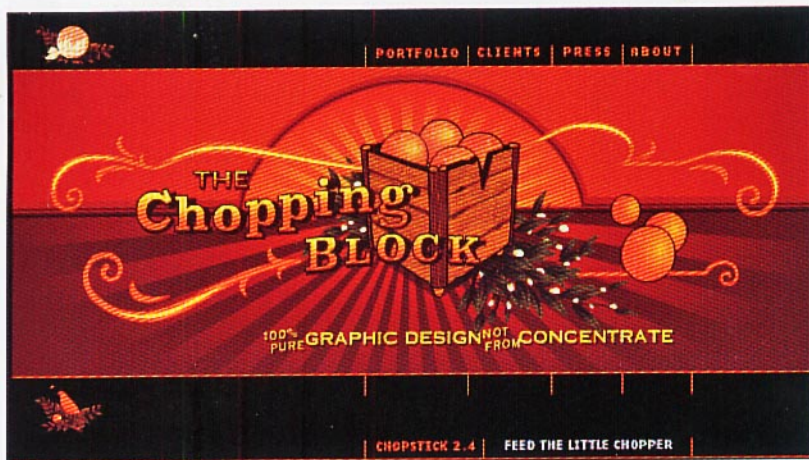
HTML coexists with other languages on the Web, just as alternative technologies appeared alongside letterpress. Lithography, invented for the manufacture of images in the eighteenth century, quickly became an advertising medium that incorporated words as well as pictures, just as letterpress made space in its mechanical grid for woodcuts, engravings, and photographic halftone blocks. In the twentieth century, lithography replaced letterpress as the world's dominant printing method; used with digital or photographic typesetting, it conveys text and pictures with equal comfort.

Lithography is not governed by grids as relentlessly as letterpress; neither is Macromedia Flash, the animation software that became a common Web-design tool. Flash was originally designed for the creation of vector-based cartoons. Although its primary purpose was pictorial, it is now used to construct the interface and content, both graphic and textual, of entire Web sites.

Although Flash scripting manipulates objects in a field of x and y coordinates, the sites created with this technology often appear less tightly controlled by grids than the tabulated pages of HTML. The Flash sites that became, in the late 1990s, icons of a new Web aesthetic are more cinematic than typographic, and often feature a painterly mix of word and image.



Hand-coding HTML is as slow and deliberate as setting metal type. Empty table cells are used to out areas of open space, but HTML makes these collapse if the cells are truly empty, causing the grid to implode. The transparent images that often fill these spaces are virtual equivalents to the blank spacing material of metal type.



THE CHOPPING BLOCK

Web page (detail)

Designers: Thomas Romer, Jason Hillyer, Charles Michelet, Robert Reed, and Matthew Richmond, The Chopping Block

This Web site reprises the design of early twentieth-century fruit-crate labels, which were produced as lithographic prints that merge text and image. The Web page is animated, loading elements over time.

WILLIAM GIBSON'S 1984 NOVEL *Neuromancer* envisions cyberspace as a vast ethereal grid. Gibson's data cowboy leaves behind the "meat" of his body and drifts off into a "transparent 3D chessboard extending to infinity." The image of this grid is projected on an internal surface of the mind, bound by no screen or window.

The grid as infinite space—defying edges and dominated by mind rather than body—is a powerful instrument within modernist theory, where it is a form both rational and sublime. In the early twentieth century, avant-garde designers exposed the grid in order to dramatize the mechanical conditions of print. After World War II, Swiss designers built a total design methodology around the grid, infusing it with ideological intention. The grid was their key to a universal language. With the postmodern turn toward historical, vernacular, and popular sources in the 1970s and 1980s, many designers rejected the rationalist grid as a quaint artifact of Switzerland's own orderly society.

The rise of the Internet has rekindled interest in universal design thinking. The Web was invented in the early 1990s (in Switzerland) to let scientists and researchers share documents created with different software applications. Its inventor, Tim Berners-Lee, never guessed it would become a design-driven medium connecting vast numbers of differently abled and divergently motivated people around the globe.

Universal design systems can no longer be dismissed as the irrelevant musings of a small, localized design community. A second modernism has emerged, reinvigorating the utopian search for universal forms that marked the birth of design as a discourse and a discipline nearly a century earlier. Against the opacity and singularity of unique visual expressions—grounded in regional preferences and private obsessions—ideas of commonality, transparency, and openness are being reborn as information seeks to shed its physical body.

On the invention of the Web, see Tim Berners-Lee, *Weaving the Web* (New York: HarperCollins, 1999). For a contemporary account of universal design thinking, see William Lidwell, Kritina Holden, and Jill Butler, *Universal Principles of Design* (Gloucester, Mass.: Rockport Publishers, 2003). See also William Gibson, *Neuromancer* (New York: Ace Books, 1984).

To produce designs that are objectively informative is primarily a socio-cultural task. Josef Müller-Brockmann, 1961

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calendar

more studio information soon

contact information

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tel : 1 516 242 3039
fax : 1 516 893 5505

email : studio@joshuadavis.com

news

We've just uploaded a few demos of Vector Video Suite 2, which re-compiles video in halftone format, again using custom vector assets. However, the halftone format scales the vector assets to create pools of light and dark. [Click here](#) for more info.

Partners, Branden Hall and Joshua Davis, have developed a suite of software that re-compiles video, using any vector based assets fed into the system. Vector Video Suite 1 has the ability to associate a scope of vector assets to specific ranges of color, as in the first typeface example. [Click here](#) for more info.

We just finished a nine minute random generative DVD, commissioned by Li Edelkoort, produced for her upcoming biennial "Armour, the fortification of a city".

vector video suite 2



play 3.5 meg : video

play 3.8 meg

page : 1 2 3

Our studio has developed a suite of software that re-compiles video, using any vector based assets fed into the system. Contact us via e-mail for further information on software services.

JOSHUADAVIS.COM

Web site, 2004

Designed by Joshua Davis
The anonymous coolness of
"old school" Swiss rationalism
resurfaced in Web design, as seen
in the use of flush left, lowercase
Helvetica and consistent grid
systems.

Flash guru Joshua Davis, who
designs serene screen layouts with
scripted animations, is a leader
in this return to the rational roots
of mid-century graphics, now
inflected with the voice of new
media.

architektur

Franz Hesse

erinnert sie in seinen Beobachtungen herlinischen Lebens an die merkwürdigen Behausungen der Tiere: Liebt das Zebra sein afrikanisches Gehöft, der Büffel sein Borkenpalais? Die Steine von Bärenzwinger, Vogelhaus und Löwenheim deuten Hessel als Baukastensteine, der Zoo wird in seiner Interpretation zur natürlichen Fortsetzung einer Kinderstube und einem Ort, wo die vorzeitlichen Tierkulte Göttergötter haben wiederzufinden. F. Lichterfeld bezieht sich in einem Artikel der ILLUSTRIRTEN ZEITUNG von 1873 auf die anfänglich vorhandene Verwunderung der Stadtbewohner über die neuen, ungewohnten Bauwerke: Was sollte diese Thürme mit der flammenden Sonne und den phantastischen Drachen- und Elefantenbildern in einer christlichen Stadt wie Berlin? Diese Frage wurde früher häufig aufgeworfen, zumal von Landeuten welche ihr Weg nach der Stadt an der fremden Heldentempel vorüber-

führte. Jetzt weiß jedermann in und um Berlin, daß der fremde Heldentempel das neue Elefantenhaus ist. [...] Nicht diesem, sondern dem Publikum zuliebe wurde der Neubau so reich ausgestattet, denn selbst dem Elefanten ist eine Portion Moorrüben oder ein Bund Heu lieber als der ganze architektonische und musische Schmuck seines neuen Hauses, und nun gar erst dem Rhinoceros! Die stilistische Gestaltung der Bauten steht offensichtlich auch in Zusammenhang mit der Einbindung der zoologischen Gärten in kolonialistische Zusammenhänge. Die Repräsentation fremdkultureller Elemente erlaubt Rückschlüsse auf die Konturen eines rudimentär entwickelten Kosmopolitismus. Das Einbringen von Elementen aus anderen Kulturzusammenhängen markiert den Wandel vom systematischen zum geographisch orientierten Zoo. Wichtigsten Einfluß auf die Idee, Tiere in einem baulich-stilistischen Rahmen zu zeigen, der gewisse Zusammenhänge zur Ethnographie der Heimatlandschaften aufweist, hatte der Zoologe Philipp Leopold Martin. In seinem 1870 in Leipzig erschienenen Kompendium DIE PRAXIS DER NATURGESCHICHTE — er maßte sich an, es als vollständiges Lehrbuch über das Sammeln lebender und toter Naturkörper zu bezeichnen — rationalisiert Martin dieses Vorgehen als ethnographisch-architektonische Belehrung: Was ist aber nun wohl natürlicher und zugleich lehrreicher, als die Natur in unseren Gärten nach Welttheilen, Zonen und lokalen Verhältnissen aufzustellen? [...] Der Wisent verlangt Wald und der Buffalo die Prairie; und wenn wir dieses thun und in die Prairie noch einen Wigwam als Stall hinsetzen, so belehren wir damit zugleich das Publikum, denn es erhält Bilder, die es niemals vergißt. Die fremdkulturelle Architektur der Stillbauten — auch wichtiger Bestandteil der großen Weltausstellungen in dieser Phase — wird jeglicher zeitlicher Entwicklung entzogen. Zoodirektor Ludwig Hoek schreibt rückblickend im Jahre 1929: Man denke nur, wenn wir

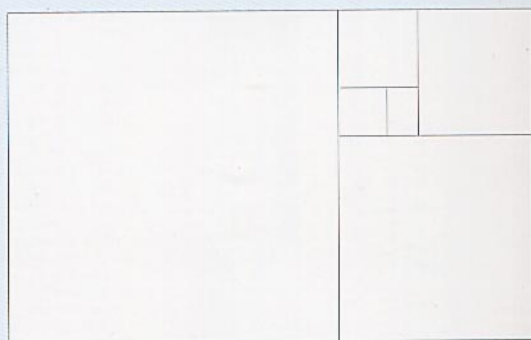
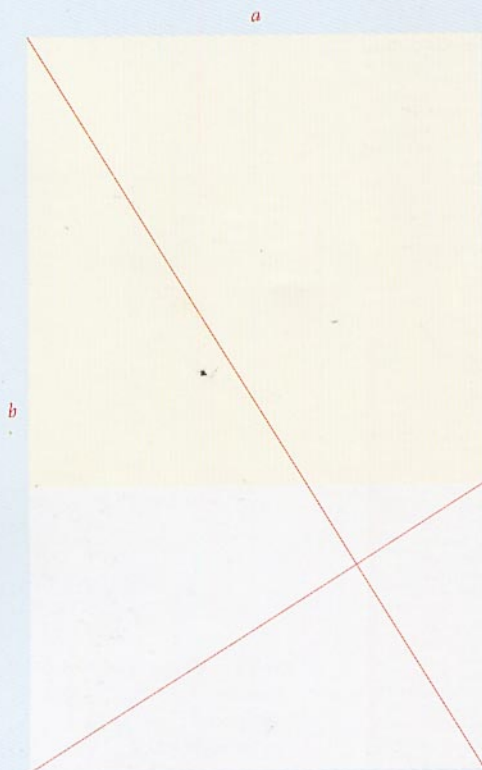
F. Franz Hessel: Spätkoloniale Berlin, 1912, S. 102. Die im Bild gezeigten Bauten sind: links: Bärenzwinger, in der Mitte: Vogelhaus, rechts: Löwenheim. Die Abbildung zeigt die architektonische Gestaltung der Bauten.

FORM + ZWECK 27

Journal

Designers: Cyan, Berlin

In the pages of this experimental journal, compact columns of justified text are pushed to the outer margins. By marking paragraphs with symbols rather than indents and line breaks, the designers have maximized the density of the text field. Running heads, page numbers, and images are narrow channels cut into a solid wall of text. Footnotes are also treated as justified blocks, turned 90 degrees against the grain of the page.



The golden section, which appears in nature as well as in art and design, has many surprising properties. For example, when you remove a square from a golden rectangle, the remainder is another golden rectangle, a process that can be infinitely repeated to create a spiral.

No book about typography would be complete without a discussion of the *golden section*, a ratio (relationship between two numbers) that has been used in Western art and architecture for more than two thousand years. The formula for the golden section is $a : b = b : (a+b)$.

This means that the smaller of two elements (such as the side of a rectangle) relates to the larger element in the same way that the larger element relates to the two parts combined. In other words, side *a* is to side *b* as side *b* is to the sum of both sides.

Expressed numerically, the golden section is 1 : 1.618

Some graphic designers are fascinated with the golden section and use it to create various grids and page formats—indeed, entire books have been written on the subject. Other designers believe that the golden section is no more valid as a basis for deriving sizes and proportions than other methods, such as beginning from standard industrial paper sizes, or dividing surfaces into halves or squares, or simply picking whole-number page formats and making logical divisions within them.



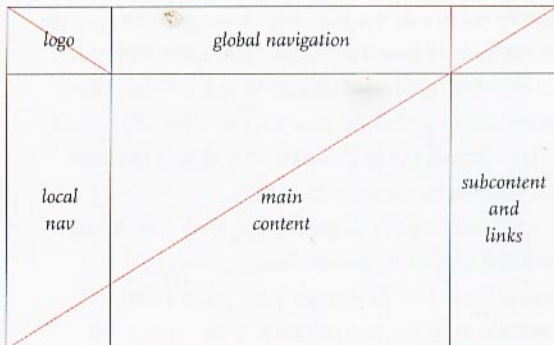
Golden rectangle of text on 8.5 x 11-inch page (U.S. standard)



Golden rectangle of text on A4 page (European standard, 210 x 297 mm)

Commercial printers generally prefer to work with pages trimmed to even measures rather than with obscure fractions. However, you can float golden rectangles within a page of any trim size.

For a more detailed account of design and the golden section, see Kimberly Elam, *Geometry of Design* (New York: Princeton Architectural Press, 2001). For an emphasis on applying the golden section to typography, see John Kane, *A Type Primer* (London: Laurence King, 2002).



It may well be absurd to base a Web site on the golden section, but here, nonetheless, is a design for one. This wire frame diagram describes a Web page that is 500 x 809 pixels. The "golden screen" is then divided with squares and golden rectangles.

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This standard, 8.5 x 11-inch page has even margins all the way around. It is a highly economical, but not very interesting, design.

This page is an inch shorter than a standard US office sheet. The text block is a square, leaving margins of varying size.

Every time you open a new document in Quark XPress or Adobe InDesign, you are prompted to create a grid. (Microsoft Word, on the other hand, doesn't ask; it just makes a grid for you.) The simplest grid consists of a single column of text surrounded by margins.

By asking for page dimensions and margin widths from the outset, layout programs encourage you to design your page from the *outside in*. (The text column is the space left over when the margins have been subtracted.)

Alternatively, you can design your page from the inside out, by setting your margins to zero and then positioning guidelines and text boxes on a blank page. This allows you to experiment with the margins and columns rather than making a commitment as soon as you open a new document. You can add guidelines to a master page after they meet your satisfaction.


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In this symmetrical double-page spread, the inside margins are wider than the outside margins, creating more open space at the spine of the book.

Books and magazines should be designed as *spreads* (facing pages). The two-page spread, rather than the individual page, is the main unit of design. Left and right margins become inside and outside margins. Page layout programs assume that the inside margins are the same on both the left- and right-hand pages, yielding a symmetrical, mirror-image spread. You are free, however, to set your own margins and create an asymmetrical spread.

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In this asymmetrical layout, the left margin is always wider than the right margin, whether it appears along the inside or outside edge of the page.

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There are numerous ways to use a basic column grid. Here, one column has been reserved for images and captions, and the others for text.

In this variation, images and text share column space.

While single-column grids work well for simple documents, multi-column grids provide flexible formats for publications that have a complex hierarchy or that integrate text and illustrations. The more columns you create, the more flexible your grid becomes. You can use the grid to articulate the hierarchy of the publication by creating zones for different kinds of content. A text or image can occupy a single column or it can span several. Not all the space has to be filled.

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Elements of varying width are staggered within the structure of the grid.

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A horizontal band divides a text zone from an image zone. Elements gravitate towards this line, which provides an internal structure for the page.

In addition to creating vertical zones with the columns of the grid, you can also divide the page horizontally. For example, an area across the top can be reserved for images and captions, and body text can “hang” from a common line. In architecture, a horizontal reference point like this is called a *datum*.

| | | |
|---|--|---|
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Columns of text hang from a datum, falling downward with an uneven rag across the bottom.

Ifang Leisalpa
(Schloss).
2090 Meter

und verdichtet, wie dies im Betonbau üblich ist. Da der Beton bei diesem Vorgang die Vor- und Rücksprünge der Rückseite der Steinplattenwand umfließt, entstand eine vorzügliche Verzahnung und Verbindung der beiden Materialien Kunststein (Beton) und Naturstein.

Allerdings konnten die Wände nicht in ihrer ganzen Höhe auf einmal hintergossen werden. Das musste in Höhenetappen von 50 cm erfolgen. Erst wenn der Beton einer Lage eine bestimmte Festigkeit erreicht und sich mit dem Mauerwerk verbunden hatte, konnte die nächste Lage von 50 cm darüber betoniert werden. Eine höhere Schüttmasse von flüssigem Beton hätte die freistehenden Steinplattenwände seitlich weggedrückt.

Insgesamt wurden für die Wände der Therme 450 m³ oder 1300 Tonnen Valsler Quarzitplatten zu 3100 m² Wandfläche in 20 Schichten pro m² verarbeitet. Die Länge aller verwendeten Plattenstreifen zusammen ergibt ein Total von 62.000 Laufmetern, was der Strecke von Vals nach Haldenstein entspricht.

Peter Zumthor

Valsler Quarzit

Druckfestigkeit:
etwa 217 N/mm²
Rohdichte:
2.698 kg/m³
Wasseraufnahmekoeffizient:
Masse -% 0,25
Gefräste Steinplatten: Stärken
6, 3, 4, 7 und 3,1cm
Toleranz: 1 mm
Breiten: 12 - 30 cm
Längen: bis 3,20 m
über 60.000 lfm
Fugenbreite:
etwa 2 mm

Boden

Breiten der
Bahnen: 8 - 110 cm
Längen: bis 3,20 m,
je Platte zum Teil
über 3 m² in einer
Stärke von 2 cm
Oberflächen:
poliert, gefräst,
gestockt, geschliffen in allen
Möglichkeiten
und einer Fugenbreite von 1 mm

Fugen und

Mörtelmasse
EMACO R 304
BARRA 80 Firma
MBT | Eckverbindungen, Schwel-
len, Sturzplatten,
Treppenunter-
sichte und Tritte,
Sitze als einzel-
ne Werkstücke
gefertigt | minimale
Toleranzen (welt
unter sIA-Norm)
beim Schneiden
und Vermauern
der Steine, wie zum
Beispiel auf 8 m
Höhe weniger als
5 mm Toleranz

Grotten

Trinkstein:
polierte Quader
aufeinander-
geschichte Größe
etwa 0,5 - 1 m³
Quellgrotte:
gebrochener
Stein im Innern
Schwitzstein:
eingefärbter und
polierter Beton
Steininsel:
grossformatige
gespaltene Platten
bis zu 3 m² je
Platte



STEIN UND VASSER,
WINTER 2003|04

Booklet, 2003

Designer: Clemens Schedler,
Büro für konkrete Gestaltung
Publisher: Hotel Therme,
Switzerland

*This publication for a spa in
Switzerland uses a five-column
grid. The main text fills a four-
column block, and the smaller
texts occupy single columns.*

General
Non-Fiction

Art

Photography

Collector's
Editions

Film

Architecture

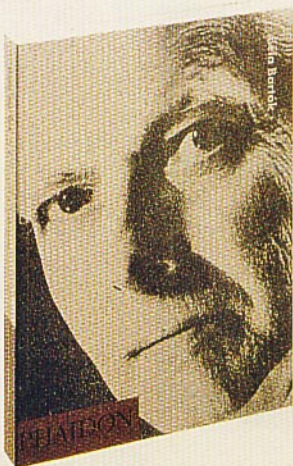
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c.80 illus

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Kenneth Chalmers



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- Covers the full range of his work from his early explorations of the folklore of Hungary to his Third Piano Concerto composed on his deathbed in the United States
- Brings out the singular nature of his genius and the originality of his contribution to music

Kenneth Chalmers is an author, translator and composer who has written on Bartók, Berg, Stravinsky, Verdi and Weill, and collaborated on Decca's 20-volume Mozart Almanac

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Fashion &
Contemporary
Culture

Decorative Arts

Music &
Performing Arts
20th Century
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The Beatles

Allan Kozinn



- Follows the extraordinary development of the four self-taught musicians from Liverpool from their beginnings until the break-up in 1970
- Examines why the innovative music of the Beatles – created, at least initially, as ephemera – has remained so durable
- Considers not only the commercially released disks but also studio outtakes, demos, unreleased recordings and broadcast performances
- Sets the group's evolution against the backdrop of the popular culture explosion of the 1960s

Allan Kozinn has written musical criticism for the *New York Times* since 1977 and won ASCAP awards for his work, including the book *Mischa Elman and the Romantic Style*

'A well-rounded, readable account. Makes a convincing case for putting the Beatles on the shelf between Bartók and Boulez.' (*The Sunday Times*)

PHAIDON: FALL 2003
Catalogue, 2003
Designer: Hans Dieter Reichert
Publisher: Phaidon
Photograph: Dan Meyers
This catalogue for a book publisher provides a rational and elegant structure for displaying hundreds of different books, each one presented as a physical object annotated with documentary data. The margins act as a navigational interface for the catalogue. Divisions occur both horizontally and vertically.

Play serves learning though experimentation without risk. Learning occurs through quick, imprecise actions, conducted within understood rules of a game, and free from threat or consumption. Play does not use up so much as build.

military-industrial world of computing, one important way to do so is to play. Play takes many forms. For example, it can be individual or social. According to one classic

taxonomy, individual play includes pursuit of sensations, exercise of motor apparatus and experimentation with higher mental powers. This mental play includes exercise of attention, emotion and will. Attention play includes tests of memory, imagination, focus and reason. On the other hand, social play includes fighting and rivalry, loving and courtship, imitation and status seeking. Imitative play includes movements, drama, behavioural constructions and emulation of inner states.²

Crafts and craft learning embrace quite a range of these playful forms. Arguably, no productive process combines so many so well. Sensation, skilled motion, attention, involvement, will — all must be balanced, and this is the basis for craft as recreation. Craft learning is a form of imitative social learning. Movements are physical skills taught directly, whether by demonstration or coaching. Drama is a lesser component here, although it may be understood in the willful suspension of disbelief that allows participation in an abstract medium. Constructions are the artifacts. They are the plastic play, the visual examples, the operational learning. Finally the inner state is the patience, reflectivity and intent that distinguish the master.

Play serves learning though experimentation without risk. Play often lacks any immediately obvious aim other than the pursuit of stimulation, but functions almost instinctively to serve the process of development. Learning occurs through quick, imprecise actions, conducted within understood rules of a game, and free from threat or consumption. Play does not use up so much as build. One thing it

builds is common sense. Play's endlessly variable series of awkward, exaggerated motions seeks out the approximate arena for later development of true competence.

There is much to be said for play in a medium. If a medium is defined by its affordances and constraints, then learning consists of exploring these properties. Experimentation is especially useful for becoming familiar with constraints: we learn from our mistakes. We must accept that beginning work in a new medium will be full of setbacks. There will also be fortuitous discoveries, however particularly of affordances. Design is not only invention, but also sensitivity to a medium. Craft cannot be merely in service of technique, or of inappropriately conceived ends. The craftsman must begin to feel something about the artifacts, and only certain moves will feel right.

Of course when it comes to computation, we all must learn. In a sense, we're all children—the medium is *that* new. And of course, the most fluent experts here are often quite young. As all of us learn about this promising new domain, a chain of developments should be clear: play shapes learning; learning shapes the mind; mental structures shape software; and software data structures afford work and play.

Structure and Improvisation

The master at play improvises. Consider the jazz pianist. In *Ways of the Hand — The Organization of Improvised Conduct* (1978), the musician David Sudnow gives us a rare description of otherwise tacit knowledge in action. Improvising on a piece takes much more talent than simply playing from a notation or learning by rote, Sudnow explains. Moreover, improvising begins with a sense of structure, from which it builds a cognitive map. For example, the 'way in' to an arpeggio is mentally mapped. The structure of the keyboard presents a physical map of a chord, which may be modified in countless ways by physical moves. One could play the adjacent keys, for example, or one could translate by any arbitrary interval. One could transpose or invert. One could change the order in which the notes were played, or the

² Karl Groos, *The Play of Man*. New York: Appleton and Co., 1901

the same pitches as the first, the doubled back and went fast again, but over different pitches... There were innumerable variations possible; looking at 'structure' in this way and corresponding to various continuity practices, ways of the hand were cultivated that were suited to the performance of such manoeuvres...

Transposition of such a figure to a new segment and correct repetition with respect to pitch, without slowing it down or slowing down parts of it, involved coping with the topography of the terrain by the hand as a negotiative organ with various potentials and limitations.³

tempo, or the attack and decay. Of course one could substitute dominant, major and minor chords.

Sudnow argues that because these variations are sequences of physical positions, they are learned as active skills no longer necessary to be understood at a mental level. Each becomes a handful. That the hand gets a hold of a variation on a chord is indicated by observed tendencies to start into particular sequences with certain fingers on certain keys. The manoeuvre is known by the hand, and the mind only maps the way in. The ability to modify the run note by note — which would require conscious attention — only comes later. Even without attentive intellectual guidance, however, the natural tendency of the hand is not to repeat itself, even in a series of figural repetitions. Thus once a sufficient repertoire of runs is learned, this tendency inherently ensures a richness to the sound. The hand searches its territory for sequences, which process replaces a faithfulness to the score, and that makes jazz. For example:

The new run could be in various other ways — only 'essentially related' to the preceding run. Say the first started slow and went up fast, then doubled back and went fast again, while the second started slowly and came back down through

Although jazz is the obvious case, it is hardly alone. Improvisation plays a role in many contemporary practices, and in many traditional crafts. Few of these worlds employ such a singular instrument as the piano; few are able to turn so much over to the hands, but all involve playful response to a structure. For example, of industrial design, Herbert Read insisted that 'Art implies values more various than those determined by practical necessity.'⁴ As a modernist and industrialist, he felt admiration for fundamental structural laws, such as the golden section also admired by his contemporary Le Corbusier. He was convinced, however, that metrical irregularities based on a governing structure, rather than slavish adherence to the laws in their precision, was the basis for pleasurable expression. He cited Ruskin's line that 'All beautiful lines are drawn under mathematical laws organically transgressed.'⁵ He held that this was the case even in the useful (industrial) arts.

Consider the case of processing a digital photograph. The makeup of the raster image file, the various tone scale and filtration operators, provides a very clear structure in which to work but demands no particular order of operation. The complex microstructure of the sampled pixels provides a sub-

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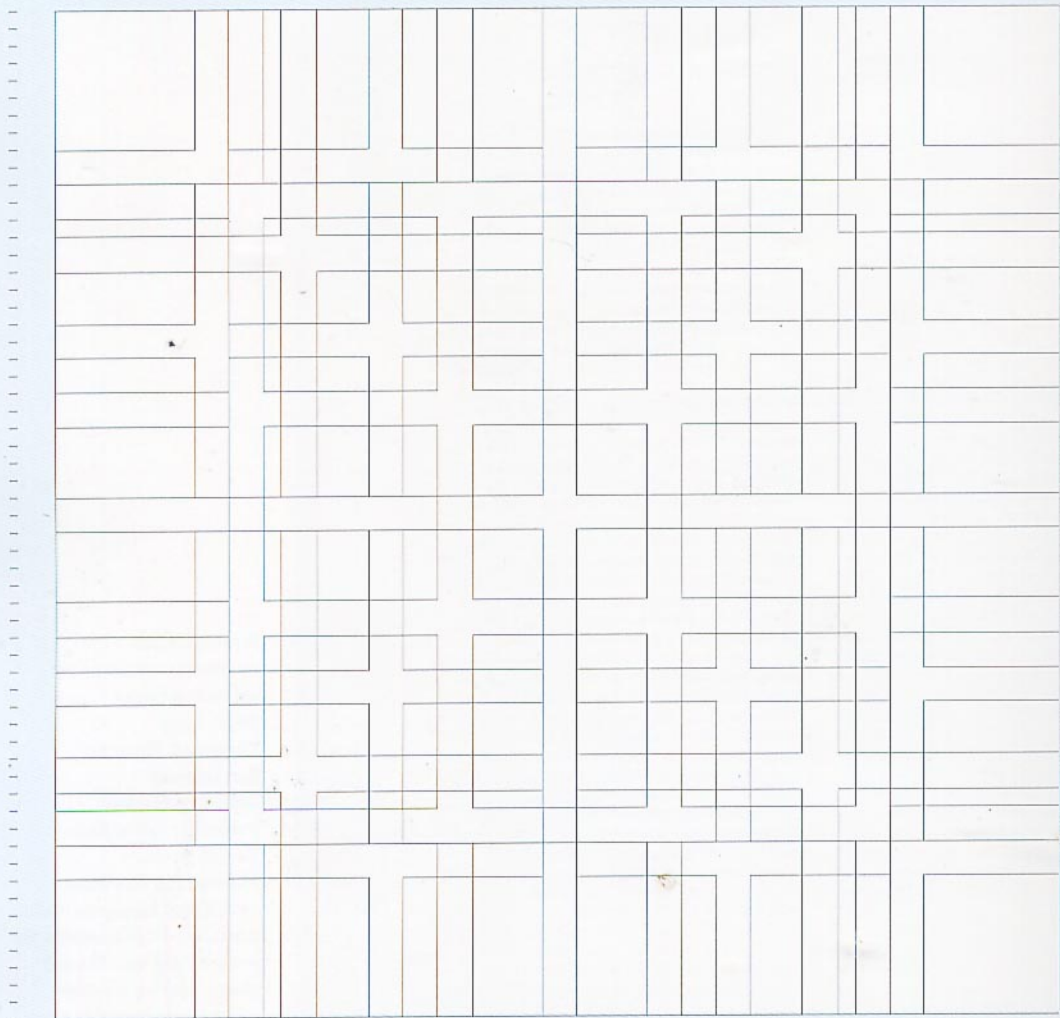
³ David Sudnow, *Ways of the Hand—The Organization of Improvised Conduct*, Cambridge, MA: Harvard University Press, 1978, p. 1.
⁴ Herbert Read, *Art and Industry—The Principles of Industrial Design*, New York: Horizon Press, 1954 [1934].
⁵ *Ibid.*

IF/THEN PLAY:
DESIGN IMPLICATIONS
OF NEW MEDIA
Book, 1999

Designers: Mevis and
Van Deursen

Editor: Jan Abrams
Publisher: Netherlands
Design Institute

Photograph: Dan Meyers
In this book about new media, a two-column grid contains the main body of text. The pull quotes, running across two columns, are framed in thinly ruled boxes that suggest the overlapping "windows" on a computer screen. The top margin, which resembles the tool bar in a browser, provides an interface to the book.




DESIGNING PROGRAMS
Grid diagram, 1963 (redrawn)
Designer: Karl Gerstner
Arthur Niggli, Zurich

This square grid consists of six vertical columns and six horizontal modules, overlaid by grids of one, two, three, and four units.

Vertically, the grid is governed by a 10-point measure, which would determine the spacing of type from baseline to baseline.

| | | |
|--|---|--|
| Grid systems | | |
|  | <p>A grid can be simple or complex, specific or generic, tightly defined or loosely interpreted. Typographic grids are all about control. They establish a system for arranging content within the space of page, screen, or built environment. Designed in response to the internal pressures of content (text, image, data) and the outer edge of frame (page, screen, window), an effective grid is not a rigid formula but a flexible and resilient structure, a solution that moves in concert with the muscular mass of content. Grids belong to the technological framework of typography, from the concrete modularity of letterpress to the ubiquitous rulers, guides, and coordinate systems of graphics applications. Although software generates illusions of smooth curves and continuous tones, every digital image or mark is constructed—ultimately—from a grid of neatly bounded blocks. The ubiquitous language of the GUI (graphical user interface) creates a gridded space in which windows overlay windows. In addition to their place in the background of design production, grids have become explicit theoretical tools. Avant-garde designers in the 1950s and 1960s exposed the grid of letterpress, bringing it to the polemical surface of the page. In Switzerland after World War II, graphic designers took a total design methodology around the typographic grid, helping to build from it a new and rational moral order. The grid has evolved across centuries of typographic evolution. For graphic designers, grids are carefully honed tools of intellectual devices, a refuge with discipline and ambition, and they are the inseparable mesh that alters, at some level of resolution, nearly every system of writing and</p> | |
| <p>The typographic grid is constructed by laying a horizontal 'type ruler' along the left edge of the page. Using this ruler, position guidelines corresponding to the line spacing (leading) of the type.</p> | <p>The typographic grid is constructed by laying a horizontal 'type ruler' along the left edge of the page. Using this ruler, position guidelines corresponding to the line spacing (leading) of the type.</p> | <p>The typographic grid is constructed by laying a horizontal 'type ruler' along the left edge of the page. Using this ruler, position guidelines corresponding to the line spacing (leading) of the type.</p> |

This modular grid has four columns and four rows. An image or a text block can occupy one or more modules.

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Endless variations are possible.

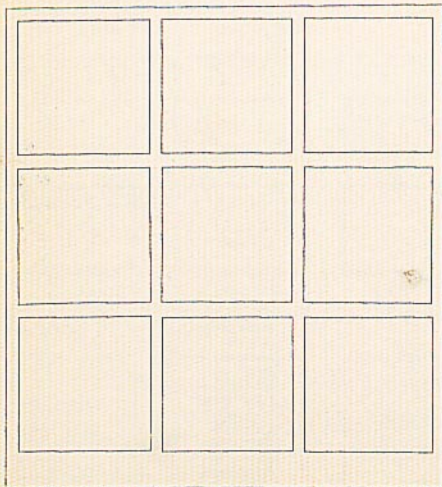
A modular grid has consistent horizontal divisions from top to bottom, and in addition to vertical divisions from left to right. These modules govern the placement and cropping of pictures as well as text. In the 1950s and 1960s, Swiss graphic designers including Karl Gerstner, Emil Ruder, and Josef Müller-Brockmann devised modular grid systems like the one shown here.

Create the horizontal divisions by laying a "type ruler" along the left edge of the page. Using this ruler, position guidelines corresponding to the line spacing (leading) of the type.

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Es gibt keine feste Reihenfolge, sondern die
 Abfolge der Bilder wird durch die
 Gestaltung des Textes bestimmt. Die
 Bilder sind so angeordnet, dass sie
 den Text ergänzen und die
 Leserschaft zu neuen
 Zusammenhängen anleiten.
 Die Bilder sind so gewählt,
 dass sie die Vielfalt der
 Darstellungen zeigen und die
 Einheitlichkeit des Gesamtergebnisses
 betonen.



Seiten 226/227/228
 Ein Bild- und Textbuch, auf der Grundlage eines Rasteres von
 9 Quadraten aufgebaut. Die Raster ist hier das Mittel, das die
 unterschiedlichen Textmengen, unterschiedlichen Bildgrößen
 und Bildformate zu einer formalen Einheit zusammenfasst. Im
 Endergebnis soll der Raster nicht auffallen, er soll von der Ver-
 schiedenheit der Werte und Bildformen überbört werden.

Pages 226/227/228: A book containing pictures and text based
 on a grid pattern of nine squares. This pattern is the means of
 establishing a formal unity between the different amounts of
 text and different sizes and shapes of picture. The pattern
 should not be conspicuous in the final result but rather be
 concealed by the diversity of pictorial subjects and typographical values.

Pages 226/227/228
 Un livre illustré construit sur la base d'une trame de 9 carrés.
 La trame est ici l'élément d'unité reliant entre eux les divers
 textes et formats d'images. Dans le résultat définitif, la trame
 doit pas être trop frappante, mais seulement perceptible à
 travers la diversité des valeurs et des sujets d'illustration.

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| Common typographic disorders | | | |
| Various forms of dysfunction appear among populations exposed to typography for long periods of time. Listed here are a number of frequently observed afflictions. | | | |
| typophilia An excessive attachment to and fascination with the shape of letters, often to the exclusion of other interests and object choices. Typophiliacs usually die penniless and alone. | | | |
| typophobia The irrational dislike of letterforms, often marked by a preference for icons, dingbats, and—in fatal cases—bullets and daggers. The fears of the typophobe can often be quieted (but not cured) by steady doses of Helvetica and Times Roman. | | | |
| tychondria A persistent anxiety that one has selected the wrong typeface. This condition is often paired with okd (optical kerning disorder), the need to constantly adjust and readjust the spaces between letters. | | | |

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Use a modular grid to arrange a text in as many ways as you can. By employing just one size of type, flush left only, you will construct a typographic hierarchy exclusively by means of spatial arrangement. To make the project more complex, begin adding variables such as weight, size, and alignment.

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| | typochondria | A persistent anxiety that one has selected the wrong typeface. This condition is often paired with OKD (optical kerning disorder), the need to constantly adjust and readjust the spaces between letters. |

| | | | |
|--|---|--|---|
| Common typographic disorders | | | |
| | typophilia | typophobia | typochondria |
| Various forms of dysfunction appear among populations exposed to typography for long periods of time. Listed here are a number of frequently observed afflictions. | An excessive attachment to and fascination with the shape of letters, often to the exclusion of other interests and object choices. Typophiliacs usually die penniless and alone. | The irrational dislike of letterforms, often marked by a preference for icons, dingbats, and—in fatal cases—bullets and daggers. The fears of the typophobe can often be quieted (but not cured) by steady doses of Helvetica and Times Roman. | A persistent anxiety that one has selected the wrong typeface. This condition is often paired with OKD (optical kerning disorder), the need to constantly adjust and readjust the spaces between letters. |

| | | | |
|------------------------------|---|--------------|--|
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| | | | |
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ORTHOGONAL

| | | | | | | |
|--|--|--|--|---|--|--|
| 94 | 41 | 55 | 57 | 62 | 75 | 83 |
|  |  |  |  |  |  |  |
| SHREDDED WHEAT | RICE CHEX | FR. SHREDDED WHEAT | FROSTED MINI-WHEAT | LIFE | CRUNCHY CORN BRAN | CRIS |
| 02 | 24 | 28 | 52 | 55 | 61 | 73 |
|  |  |  |  |  |  |  |
| CORN FLAKE | WHEATIE | RAISIN BRAN | FROSTED FLAKE | SPECIAL K | TOTAL | 100% |
| 02 | 04 | 28 | 50 | 54 | 58 | 69 |
|  |  |  |  |  |  |  |
| PUFFED RICE | PUFFED WHEAT | RICE KRISPIE | CORN POP | SUGAR SMACKS | COCOA KRISPIES | FRUIT |
| 37 | 41 | 58 | 63 | 64 | 79 | 84 |
|  |  |  |  |  |  |  |
| KIX | CHEERIO | COCOA PUFF | FROOT LOOP | APPLE JACK | HONEY NUT CHEERIO | HONEY |
| 54 | 57 | 61 | 64 | 68 | 69 | 76 |
|  |  |  |  |  |  |  |
| TRIX | ALPHABITS | FRANKENBERRY | LUCKY CHARMS | CRUNCHBERRIES | KABOOM | HONEY |

| YEAR INTRODUCED | MARKET SHARE | PRICE PER LB | MAKER |
|-----------------|--------------|--------------|-------------|
| 00 | 15 | 3.01 | P |
| G | | | SUGAR (1) |
| K | | | FIBER (4) |
| P | | | PROTEIN (4) |
| Q | | | SODIUM (0) |

PERIODIC BREAKFAST TABLE
 Magazine page (detail)
 Designer: Catherine Weese
 Photography: John Halpern
 Publisher: Patsy Tarr,
 Twice Magazine

This chart organizes breakfast cereals by shape and annotates them according to a dozen characteristics, from fiber content to price per pound. Visual displays of data allow readers to quickly compare items. One might observe, for example, that in breakfast cereals, intensity of sugar is usually accompanied by intensity of color.

| Train No. | 3701 | 3301 | 3801 | A 07 | 3 3803 | 3 3201 | A3 51 | 3 3703 | 3 3807 | 3 3203 | A3 61 | 3 3809 | A3 47 | 3901 | 3 3811 | 3 3903 | 3 3813 | 3205 | 3615 | 3617 | 3619 | 3207 | 3821 | 3823 | 3825 | 3209 | 3827 | 3829 | 3831 | |
|---------------------|-------|-------|------|------|--------|--------|-------|--------|--------|--------|-------|--------|-------|-------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-----|
| New York, N.Y. | A M | A M | A M | A M | A M | A M | A M | A M | A M | A M | A M | A M | A M | A M | A M | A M | A M | A M | A M | A M | A M | A M | A M | A M | A M | A M | A M | P M | P M | P M |
| Newark, N.J. P | 12.24 | 12.55 | 1.44 | 4.07 | 5.04 | 6.24 | 6.38 | 6.49 | 7.04 | 7.24 | 7.45 | 7.47 | 7.59 | 8.04 | 8.19 | 8.39 | 8.54 | 9.04 | 9.24 | 9.54 | 10.24 | 10.39 | 10.54 | 11.24 | 11.54 | 12.04 | 12.24 | 12.54 | 1.24 | |
| North Elizabeth | 12.31 | 1.03 | 1.51 | 5.11 | 6.31 | 6.56 | 7.11 | 7.32 | 7.54 | 8.10 | 8.13 | 8.26 | 8.46 | 8.51 | 9.01 | 9.11 | 9.31 | 10.01 | 10.31 | 10.46 | 11.01 | 11.31 | 12.01 | 12.11 | 12.01 | 12.11 | 1.21 | 1.01 | 1.31 | |
| Elizabeth | 12.31 | 1.03 | 1.51 | 5.11 | 6.31 | 6.56 | 7.11 | 7.32 | 7.54 | 8.10 | 8.13 | 8.26 | 8.46 | 8.51 | 9.01 | 9.11 | 9.31 | 10.01 | 10.31 | 10.46 | 11.01 | 11.31 | 12.01 | 12.11 | 12.01 | 12.11 | 1.21 | 1.01 | 1.31 | |
| Linden | 12.36 | 1.56 | 2.00 | 5.16 | 6.36 | 7.01 | 7.15 | 7.37 | 7.59 | 8.04 | 8.18 | 8.31 | 8.51 | 9.06 | 9.18 | 9.36 | 10.06 | 10.36 | 10.48 | 10.36 | 11.06 | 11.36 | 12.06 | 12.16 | 12.06 | 12.16 | 1.26 | 1.06 | 1.36 | |
| North Rahway | 12.40 | 1.11 | 2.00 | 5.20 | 6.40 | 7.03 | 7.06 | 7.20 | 7.42 | 8.03 | 8.24 | 8.36 | 8.57 | 9.10 | 9.18 | 9.40 | 10.10 | 10.40 | 10.53 | 11.10 | 11.40 | 12.10 | 12.18 | 12.40 | 1.10 | 1.40 | 1.40 | 1.10 | 1.40 | |
| Rahway | 12.40 | 1.11 | 2.00 | 5.20 | 6.40 | 7.03 | 7.06 | 7.20 | 7.42 | 8.03 | 8.24 | 8.36 | 8.57 | 9.10 | 9.18 | 9.40 | 10.10 | 10.40 | 10.53 | 11.10 | 11.40 | 12.10 | 12.18 | 12.40 | 1.10 | 1.40 | 1.40 | 1.10 | 1.40 | |
| Metro Park (Iselin) | 12.44 | 2.04 | 4.26 | 5.24 | 5.28 | 6.56 | 7.10 | 7.25 | 7.42 | 8.04 | 8.07 | 8.15 | 8.40 | 9.14 | 9.18 | 9.44 | 10.14 | 10.44 | 10.48 | 10.44 | 11.14 | 11.44 | 12.14 | 12.44 | 1.14 | 1.44 | 1.44 | 1.14 | 1.44 | |
| Metuchen | 12.45 | 2.08 | 4.26 | 5.28 | 5.28 | 6.56 | 7.14 | 7.29 | 7.42 | 8.04 | 8.11 | 8.15 | 8.40 | 9.18 | 9.18 | 9.48 | 10.18 | 10.48 | 10.48 | 10.48 | 11.18 | 11.48 | 12.18 | 12.48 | 1.18 | 1.48 | 1.48 | 1.18 | 1.48 | |
| Edison | 12.51 | 2.11 | 5.35 | 7.05 | 7.05 | 7.17 | 7.32 | 7.35 | 7.35 | 8.14 | 8.14 | 8.25 | 8.47 | 9.21 | 9.21 | 10.21 | 10.21 | 10.21 | 10.21 | 10.21 | 11.21 | 11.21 | 12.21 | 1.21 | 1.21 | 1.21 | 1.21 | 1.21 | 1.21 | |
| New Brunswick | 12.55 | 2.15 | 5.35 | 7.05 | 7.21 | 7.35 | 7.21 | 7.35 | 7.35 | 8.16 | 8.16 | 8.25 | 8.50 | 9.25 | 9.25 | 9.54 | 10.25 | 10.54 | 10.54 | 10.54 | 11.25 | 11.54 | 12.25 | 12.54 | 1.25 | 1.54 | 1.54 | 1.25 | 1.54 | |
| Jersey Avenue | 1.02 | 2.18 | 5.35 | 7.28 | 7.28 | 7.28 | 7.28 | 7.28 | 7.28 | 8.21 | 8.21 | 8.21 | 8.52 | 9.28 | 9.28 | 10.28 | 10.28 | 10.28 | 10.28 | 10.28 | 11.28 | 11.28 | 12.28 | 1.28 | 1.28 | 1.28 | 1.28 | 1.28 | 1.28 | |
| Princeton Jct. S | 2.31 | 5.50 | 7.19 | 7.50 | 7.50 | 8.34 | 8.41 | 8.41 | 8.41 | 9.05 | 9.41 | 9.41 | 9.41 | 10.05 | 10.41 | 11.09 | 11.41 | 12.09 | 12.41 | 12.41 | 1.09 | 1.41 | 2.09 | 1.09 | 1.41 | 2.09 | 1.09 | 1.41 | 2.09 | |
| Trenton, N.J. | 2.42 | 4.58 | 6.03 | 7.28 | 8.01 | 8.31 | 8.44 | 8.52 | 9.16 | 9.52 | 9.52 | 9.52 | 9.52 | 10.15 | 10.52 | 11.19 | 11.52 | 12.19 | 12.52 | 12.52 | 1.19 | 1.52 | 2.20 | 1.19 | 1.52 | 2.20 | 1.19 | 1.52 | 2.20 | |

am @

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|
| New York, NY | 12.10 | 12.40 | 1.30 | 3.52 | 4.50 | 6.10 | 6.25 | 6.35 | 6.50 | 7.10 | 7.30 | 7.33 | 7.45 | 7.50 | 8.05 | 8.25 | 8.40 | 8.50 | 9.10 | 9.40 | 10.10 | 10.25 | 10.40 | 10.10 | 11.10 | 11.40 | | | |
| Newark, NJ | 12.24 | 12.55 | 1.44 | 4.07 | 5.04 | 6.24 | 6.38 | 6.49 | 7.04 | 7.24 | 7.45 | 7.47 | 7.59 | 8.04 | 8.19 | 8.39 | 8.54 | 9.04 | 9.24 | 9.54 | 10.24 | 10.39 | 10.54 | 11.24 | 11.54 | 12.04 | | | |
| North Elizabeth | 12.31 | 1.03 | 1.51 | 5.11 | 6.31 | 6.56 | 7.11 | 7.32 | 7.54 | 8.10 | 8.13 | 8.26 | 8.46 | 8.51 | 9.01 | 9.11 | 9.31 | 10.01 | 10.31 | 10.46 | 11.01 | 11.31 | 12.01 | 12.11 | 12.01 | 12.11 | | | |
| Elizabeth | 12.31 | 1.03 | 1.51 | 5.11 | 6.31 | 6.56 | 7.11 | 7.32 | 7.54 | 8.10 | 8.13 | 8.26 | 8.46 | 8.51 | 9.01 | 9.11 | 9.31 | 10.01 | 10.31 | 10.46 | 11.01 | 11.31 | 12.01 | 12.11 | 12.01 | 12.11 | | | |
| Linden | 12.36 | 1.56 | 2.00 | 5.16 | 6.36 | 7.01 | 7.15 | 7.37 | 7.59 | 8.04 | 8.18 | 8.31 | 8.51 | 9.06 | 9.18 | 9.36 | 10.06 | 10.36 | 10.48 | 10.36 | 11.06 | 11.36 | 12.06 | 12.16 | 12.06 | 12.16 | | | |
| North Rahway | 12.40 | 1.11 | 2.00 | 5.20 | 6.40 | 7.03 | 7.06 | 7.20 | 7.42 | 8.03 | 8.24 | 8.36 | 8.57 | 9.10 | 9.18 | 9.40 | 10.10 | 10.40 | 10.53 | 11.10 | 11.40 | 12.10 | 12.18 | 12.40 | 1.10 | 1.40 | | | |
| Rahway | 12.40 | 1.11 | 2.00 | 5.20 | 6.40 | 7.03 | 7.06 | 7.20 | 7.42 | 8.03 | 8.24 | 8.36 | 8.57 | 9.10 | 9.18 | 9.40 | 10.10 | 10.40 | 10.53 | 11.10 | 11.40 | 12.10 | 12.18 | 12.40 | 1.10 | 1.40 | | | |
| Metro Park (Iselin) | 12.44 | 2.04 | 4.26 | 5.24 | 5.28 | 6.56 | 7.10 | 7.25 | 7.42 | 8.04 | 8.07 | 8.15 | 8.40 | 9.14 | 9.18 | 9.44 | 10.14 | 10.44 | 10.48 | 10.44 | 11.14 | 11.44 | 12.14 | 12.44 | 1.14 | 1.44 | | | |
| Metuchen | 12.45 | 2.08 | 4.26 | 5.28 | 5.28 | 6.56 | 7.14 | 7.29 | 7.42 | 8.04 | 8.11 | 8.15 | 8.40 | 9.18 | 9.18 | 9.48 | 10.18 | 10.48 | 10.48 | 10.48 | 11.18 | 11.48 | 12.18 | 12.48 | 1.18 | 1.48 | | | |
| Edison | 12.51 | 2.11 | 5.35 | 7.05 | 7.05 | 7.17 | 7.32 | 7.35 | 7.35 | 8.14 | 8.14 | 8.25 | 8.47 | 9.21 | 9.21 | 10.21 | 10.21 | 10.21 | 10.21 | 10.21 | 11.21 | 11.21 | 12.21 | 1.21 | 1.21 | | | | |
| New Brunswick | 12.55 | 2.15 | 5.35 | 7.05 | 7.21 | 7.35 | 7.21 | 7.35 | 7.35 | 8.16 | 8.16 | 8.25 | 8.50 | 9.25 | 9.25 | 9.54 | 10.25 | 10.54 | 10.54 | 10.54 | 11.25 | 11.54 | 12.25 | 12.54 | 1.25 | 1.54 | | | |
| Jersey Avenue | 1.02 | 2.18 | 5.35 | 7.28 | 7.28 | 7.28 | 7.28 | 7.28 | 7.28 | 8.21 | 8.21 | 8.21 | 8.52 | 9.28 | 9.28 | 10.28 | 10.28 | 10.28 | 10.28 | 10.28 | 11.28 | 11.28 | 12.28 | 1.28 | 1.28 | | | | |
| Princeton Junction | 2.31 | 5.50 | 7.19 | 7.50 | 7.50 | 8.34 | 8.41 | 8.41 | 8.41 | 9.05 | 9.41 | 9.41 | 9.41 | 10.05 | 10.41 | 11.09 | 11.41 | 12.09 | 12.41 | 12.41 | 1.09 | 1.41 | 2.09 | 1.09 | 1.41 | | | | |
| Trenton, NJ | 2.42 | 4.58 | 6.03 | 7.28 | 8.01 | 8.31 | 8.44 | 8.52 | 9.16 | 9.52 | 9.52 | 9.52 | 9.52 | 10.15 | 10.52 | 11.19 | 11.52 | 12.19 | 12.52 | 12.52 | 1.19 | 1.52 | 2.20 | 1.19 | 1.52 | | | | |
| TRAIN NUMBER | 3701 | 3301 | 3801 | 67 | 3803 | 3201 | 51 | 3703 | 3807 | 3203 | 61 | 3809 | 47 | 3901 | 3811 | 3903 | 3813 | 3205 | 3615 | 3617 | 3619 | 3207 | 3821 | 3823 | 3825 | 3209 | 3827 | 3829 | 3831 |
| NOTES | | XM | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

NEW JERSEY TRANSIT, NORTHEASTERN CORRIDOR TIMETABLE

Original schedule with redesign by Edward Tufte

From Edward Tufte, *Envisioning Information* (Cheshire, Conn.: Graphics Press, 1990).

The original design (top) is organized with heavy horizontal and vertical divisions. Tufte calls this a "data prison." His redesign uses the alignment of the typographic elements themselves to express the table's underlying structure.

| ACCOUNT | ACCOUNT NAME | TOTAL FOR ACCO |
|---------|--------------------------------|----------------|
| 101001 | Instructional Supplies | \$3,65 |
| 101002 | Office Supplies | \$46 |
| 102004 | Equipment - Non-Capital | \$1,28 |
| 105009 | Travel-Conference Fees | \$56 |
| 110004 | Miscellaneous Entertainment | \$8 |
| 114006 | Postage/Shipping-Local Courier | \$21 |
| 151108 | Temp Staff-Contractual | \$7 |
| 151181 | Honoraria-Critics/Vis Artist | \$1,00 |
| | DEPARTMENTAL EXPENDITURES | \$7,36 |

The design of charts and graphs is a rich and subtle area of typographic practice. In a data table, the grid acquires semantic significance. Designers (and software defaults) often over-emphasize the grid, rather than allowing the data to command the page and stake out its own territory.

TYPE CRIME:

DATA PRISON

The rules and boxes used in data tables should illuminate the relationships among data, not trap each entry inside a heavily guarded cell.

118 BEHAVIOUR TO INTOXICATED FRIENDS.

Tabular View.—Experiments on Ants under Chloroform and Intoxicated.

| CHLOROFORMED ANTS. | | | | | | |
|--|------------------------------|----------|------------|----------------------------------|----------|------------|
| FRIENDS | | | STRANGERS | | | |
| | To Nest | To Water | Unre-moved | To Nest | To Water | Unre-moved |
| Sept. 10 | ... | ... | 4 | ... | 4 | ... |
| 14 | ... | 4 | ... | 2 and brought out again | 2 | ... |
| 15 | 1 and brought out again | 1 | ... | ... | 2 | 2 |
| 29 | ... | 5 | ... | ... | 4 | ... |
| Oct. 2 | ... | 5 | ... | 1 and brought out again | 4 | ... |
| 6 | ... | 5 | ... | ... | 4 | ... |
| | 1 | 20 | 4 | 3 | 20 | 2 |
| INTOXICATED ANTS. | | | | | | |
| Nov. 20 | 3 | 2 | ... | ... | 5 | 1 |
| 22 | 2 | ... | 2 | ... | 8 | ... |
| In these cases some of the Ants had partly recovered; in the following they were quite insensible. | | | | | | |
| Dec. 1 | 7 none brought out again | 2 | ... | 3 all these brought out again | 6 | ... |
| 8 | 16 none brought out again | 5 | ... | 3 all these brought out again | 15 | ... |
| Jan. 15 | ... | ... | 4 | ... | 3 | 1 |
| 17 | 4 none brought out again | ... | ... | 3 one brought out again | 6 | ... |
| | 27 | 7 | 4 | 2 | 30 | 1 |

INTOXICATED FRIENDS

Data table from Sir John Lubbock, *Ants, Bees, and Wasps* (New York: D. Appleton and Company, 1893).

The author of this experiment studied how ants responded upon meeting either "friends" (members of their own colony) or "strangers."

In the first experiment, the friends and strangers were rendered unconscious with chloroform.

In the second experiment, the ants were merely intoxicated. The chloroformed ants—whether friends or strangers—were usually taken for dead and pitched into a moat of water surrounding the colony.

The intoxicated ants were treated with more discrimination. Many of the drunken friends were taken back to the nest for care and rehabilitation, whereas drunken strangers were generally tossed into the moat. Ants, one might conclude, should not rely on the kindness of strangers.

| | FRIENDS | | | | STRANGERS | | | | |
|---------|------------|---------------|-----------------|---------------------|------------|---------------|-----------------|---------------------|-------------------|
| | LEFT ALONE | TAKEN TO NEST | THROWN IN WATER | BOTH NEST AND WATER | LEFT ALONE | TAKEN TO NEST | THROWN IN WATER | BOTH NEST AND WATER | |
| SEPT 10 | •••• | | | | | | •••• | | CHLOROFORMED ANTS |
| 14 | | | •••• | | | | •• | •• | |
| 15 | | | • | • | •• | | •• | | |
| 29 | | | •••• | | | | •••• | | |
| OCT 02 | | | •••• | | | | •••• | • | |
| 06 | | | •••• | | | | •••• | | |
| TOTAL | 04 | | 20 | 01 | 02 | | 20 | 03 | |
| NOV 20 | | ••• | •• | | • | | ••••• | | INTOXICATED ANTS |
| 22 | •• | •• | | | | | ••••••• | | |
| DEC 01 | | ••••••• | •• | | | | ••••••• | ••• | |
| 05 | | ••••••••• | ••••• | | | | ••••••••• | ••• | |
| JAN 15 | •••• | | | | • | | ••• | | |
| 17 | | •••• | | | | •• | ••••• | • | |
| TOTAL | 06 | 32 | 09 | | 02 | 02 | 43 | 07 | |

Find a chart from an old science book or other source, and redesign it. Shown at left is a nineteenth-century table documenting an experiment about ants. The old design emphasizes vertical divisions at the expense of horizontal ones, and it jumbles together text and numbers within the table cells.

The redesign (above) eliminates many of the ruled lines, replacing them, where needed, with a pale tone that unifies the long horizontal rows of data. The redesigned chart also replaces most of the numerals with dots, a technique that lets the eye visually compare the results without having to read each numeral separately.

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Latest updates:

- Fedra Sans 2.0 released (16 Jul 2003)
- Fedra reviewed by Andy Crewdson (16 Jul 2003)
- Letterletter by Gerrit Noordzij with a 30% discount (09 Jul 2003)
- The Elements of Typographic Style now available (06 Jul 2003)
- A Short History of the Printed Word now available (06 Jul 2003)
- Jigsaw out (18 Jun 2003)

Add yourself to our news email list. We use the list to help keep you informed of the new fonts, special limited offers, and major updates. We never sell your email. (You will receive 3-4 emails a year)

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Fedra Sans 2.0

Light Book Normal Medium Bold

Version 2.0 of Fedra Sans improves the consistency of the font and adds new versions to the type family. Details of the revision are explained in this PDF file.

The articles section is our attempt to collect relevant published and previously unpublished texts, not directed exclusively to academic peers and students, but to a broader audience of individuals with an interest in design criticism, typography and graphic design. At the moment the collection contains over 80 texts in four categories: features, reviews, interviews and essays.

A Try our interactive Font Tester with memory. You can preview and try our complete library of fonts, as well as chat with your friends. Works also with special characters and characters with diacritics.

EBFE 2003

Fedra Serif Greek won the first prize at this year's Greek Graphic Design & Illustration Awards. Both monotypic and polytonic versions are coming soon.

设计将
竞争 Giving you an un
over your compete

Examples of Typotheque fonts in use.





Besides fonts, we offer a small selection of books on type design and typography.

TYPOTHEQUE.COM

Web site, 2003

Designer: Peter Bilak

Multi-column grids provide a logical way to organize Web pages. Content occupies the center; the top and left "margins" are reserved for branding and navigation.


| | | | | |
|--|--|---|--|---|
|  | Fonts Merchandise LetterSetter Free Catalog News | Licensing Tech Support Contact Custom Work Free Fonts | Search: <input type="text"/> <input type="button" value="Find It"/> <input type="button" value="Jump to font kit"/> | Try fonts before you buy, with...  |
| Your Account | | | | |

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- 54 Dingbats
- 14 Illustrations
- Four Patterns

[BUY IT NOW!](#)

HOUSEIND.COM

Web site, 2004

Designs: Andy Cruz, Tal

Leming, Ken Barber, Rich

Roat, and Bondé Prang

Publisher: House Industries

Like many Web sites, this one places local navigation in the left column and reserves space for branding and global navigation across the top. These components serve as a frame for the content at the center.

APPENDIX

Helpful hints, dire warnings,
and other resources

These interruptions—especially the snide remarks--are driving me crazy.**CRIME:** *Two hyphens in place of em dash*

Dashes express a break in the flow of a sentence. In a word-processed document, dashes can be indicated with two hyphens. Em dashes are required, however, in typesetting. No spaces are used around dashes.

El Lissitzky lived 1890–1941. Rodchenko lived longer (1891-1956).**CRIME:** *Hyphen between numbers*

An en dash connects two numbers. It means “up to and including,” not “between.” No spaces are used around en dashes.

It's okay to be second-best, but never, ever second–best.**CRIME:** *En dash in hyphenated word*

Do not use en dashes where the humble hyphen is required.

In the beginning was...the word....Typography came later.*An ellipsis character is used here in place of separate points.*

The periods in an ellipsis can be separated with word spaces, or, as we prefer, they can be tracked open (letterspaced). Most typefaces include an ellipsis character, whose points are more tightly spaced. After a sentence, use a period plus an ellipsis (four dots).

She was 5'2" with eyes of blue. "I'm not dumb," she said. "I'm prime."**CRIME:** *Prime marks (a.k.a. dumb quotes) used in place of quotation marks*

The purpose of prime marks, or hatch marks, is to indicate inches and feet. Their use to mark quotations is a common blight across the typographic landscape.

"I'm not smart," he replied. "I'm a quotation mark."

Unlike prime marks, quotation marks include an opening and closing character. Single close quotes also serve as apostrophes. Incorrectly used prime marks must be routed out and destroyed.

Don't put two spaces between sentences. They leave an ugly gap.**CRIME:** *Two spaces between sentences*

Although writers persist in putting double spaces between sentences (a habit often learned in high school), all such spaces must be purged from a manuscript when it is set in type.

DASHES Dashes of different length have specific uses that every designer must learn. Writers or clients often supply manuscripts that employ incorrect dashes or use substitute characters.

EM DASHES express strong grammatical breaks. An em dash is one-em wide—the width of the point size of the typeface. In manuscripts, dashes are often represented with a double hyphen (-); these must be replaced.

EN DASHES serve primarily to connect numbers (1–10). An en is half the width of an em. Manuscripts rarely employ en dashes, so the designer needs to supply them.

HYPHENS connect linked words and phrases, and they break words at the ends of lines. Typesetting programs break words automatically. Disable auto hyphenation when working with ragged or centered text; use discretionary hyphens instead, and only when unavoidable.

DISCRETIONARY HYPHENS, which are inserted manually to break lines, only appear in the document if they are needed. (If a text is reflowed in subsequent editing, a discretionary hyphen will disappear.) Wayward hyphens often occur in the middle of a line when the typesetter has inserted a “hard” hyphen instead of a discretionary one.

PUNCTUATION Consult a definitive work such as *The Chicago Manual of Style* for complete rules of punctuation. The following are especially pertinent for typographers.

QUOTATION MARKS have distinct “open” and “closed” forms, unlike “hatch marks,” which are straight up and down. A single close quote also serves as an apostrophe (“It’s Bob’s font.”). Hatch marks should only be used to indicate inches and feet (5’2”). Used incorrectly, hatches are known as “dumb quotes.” Although computer operating systems and typesetting programs often include automatic “smart quote” features, e-mailed, word-processed, and/or client-supplied text can be riddled with dumb quotes. Auto smart quote programs often render apostrophes upside down (’tis instead of ‘tis), so designers must be vigilant and learn the necessary keystrokes.

ELLIPSES consist of three periods, which can be rendered with no spaces between them, or with open tracking (letterspacing), or with word spaces. An ellipsis indicates an omitted section in a quoted text or...a temporal break. Most typefaces include an ellipsis character, which presents closely spaced points.

WORD SPACES are created by the space bar. Use just one space between sentences or after a comma, colon, or semicolon. One of the first steps in typesetting a manuscript is to purge it of all double spaces. Thus the space bar should not be used to create indents

or otherwise position text on a line. Use tabs instead. HTML refuses to recognize double spaces altogether.

EN SPACES are wider than word spaces. An en space can be used to render a more emphatic distance between elements on a line: for example, to separate a subhead from the text that immediately follows, or to separate elements gathered along a single line in a letterhead.

The keystrokes listed below are commonly used in word processing, page layout, and illustration software. Keystrokes will vary in some applications. (These work for Quark XPress and InDesign.) Some fonts do not include a full range of special characters.

| DASHES | keystrokes (Mac) |
|------------------------|-------------------------|
| — em-dash | shift-option-hyphen |
| - en-dash | option-hyphen |
| - standard hyphen | (hyphen key) |
| - discretionary hyphen | command-hyphen |

| PUNCTUATION | keystrokes (Mac) |
|----------------------|-------------------------|
| ‘ single open quote | option-] |
| ’ single close quote | shift-option-] |
| “ double open quote | option-[|
| ” double close quote | shift-option-[|
| ... ellipsis | option-; |

| OTHER MARKS | keystrokes (Mac) |
|--------------------|-------------------------|
| () en space | option-space bar |
| † dagger | option-t |
| ‡ double dagger | shift-option-7 |
| © copyright symbol | option-g |
| ® register symbol | option-r |
| ff ff ligature | shift-option-2 |
| fi fi ligature | shift-option-5 |
| fl fl ligature | shift-option-6 |
| é accent aigu | option-e + e |
| è accent grave | option-` + e |
| à accent grave | option-` + a |
| ù accent grave | option-` + u |
| ç cédille | option-c |
| ü umlaut | option-u + u |
| ö umlaut | option-u + o |

Only an editor can see beyond a writer's navel.

No matter how brilliant your prose, an editor will discover errors in spelling, grammar, consistency, redundancy, and construction.

Writers should not over-format their texts.

The time you spend fiddling with formatting will be spent again by the editor and/or designer, removing extra keystrokes. Provide flush left copy, in one font, double-spaced.

Some lessons learned in high school are best forgotten.

One of them is dotting your i's with hearts and smiley faces. The other is leaving two spaces between sentences. In typesetting, one space only must be left between sentences.

The space bar is not a design tool.

Don't use the space bar to create indents (just key in a single tab), and don't use extra spaces to create centered effects or layouts (unless you really are e. e. cummings).

Every change threatens to introduce new errors.

Each time a file is "corrected" new errors can appear, from problems with rags, justification, and page breaks to spelling mistakes, missing words, and botched or incomplete corrections.

Don't wait for the proofs to seriously examine the typeset text.

Changes made after a printer's proof has been made (blue line, press proof, or other) are expensive. They also will slow down your project, which, of course, is already late.

Famous last words: "We'll catch it in the blue lines."

EDITORS Since the onslaught of desktop publishing back in the dark days of the mid-1980s, graphic designers have taken on roles formerly occupied by distinct trades, such as typesetting and mechanical pasteup. Designers are often expected to be editors as well. Every project should have a true editor, a person with the training and disposition to judge the correctness, accuracy, and consistency of written content. Neither a project's author nor its designer should be its editor, who is rightly a neutral party between them. If a project team includes no properly trained editor, try to find one. If that fails, make sure that *someone* is responsible for this crucial role, for the failure to edit carefully is the source of costly and embarrassing errors.

Editing a text for publication has three basic phases. *Developmental editing* addresses broad issues of the content and the structure of a work; indeed, it can include judging a work's fitness for publication in the first place. *Copy editing* (also called line editing or manuscript editing) seeks to root out redundancies, inconsistencies, grammatical errors, and other flaws appearing across the body of the work. The copy editor—who must study every word and sentence—is not expected to question the overall meaning or structure of a work, nor to alter an author's style, but rather to refine and correct. *Proofreading*, which checks the correctness, consistency, and flow of designed, typeset pages, is the final stage. Depending on the nature of the project and its team, each of these phases may go through several rounds.

ANATOMY OF AN ERROR After a document has been written, edited, designed, and proofread, a printer's proof is created by the printer from the digital files supplied by the designer. At this point, making changes is expensive. Many clients (or authors) fail to recognize errors (or make decisions) until the printer's proofs are issued. This luxury has its costs, and someone will have to pay.

PE'S (PRINTER'S ERRORS) These are errors that can be assigned to the printer, and they must be corrected at no expense to the designer or client. A printer's error is an obvious and blatant divergence from the digital files and other instructions provided by the designer and agreed to by the printer. Printer's errors are surprisingly rare in the digital age.

AA'S (AUTHOR'S ALTERATIONS) These are not so rare. Author's alterations are changes to the approved text or layout of the work. If the change originates with the designer, the designer is responsible. If it originates with the client or author, she or he is responsible. Keeping records of each phase of a project's development is helpful in assigning blame later. Designers can charge the client a fee for the AA on top of the printer's fee, as the designer must correct the file, print out new hard copy, get the client's approval (again), communicate with the printer (again), and so on. If agreed to in advance, designers can charge AA fees for any change to an approved document, even before the printer's proof is issued.

EA'S (EDITOR'S ALTERATIONS) Errors made by the editor are the responsibility of the editor's employer, typically the client or publisher of the work. Good editors help prevent everyone's errors from occurring in the first place.

For more detailed information about the editorial process, see *The Chicago Manual of Style, 15th Edition* (Chicago: University of Chicago Press, 2003).

Manuscript editing, also called copyediting or line editing, requires attention to every word in a manuscript, a thorough knowledge of the style to be followed, and the ability to make quick, logical, and defensible decisions. *The Chicago Manual of Style, 2003*

~~delete~~

DELETE

pose trans

TRANSPOSE

~~let it stand~~

STET ("LET IT STAND")

|
add space

SEPARATE; ADD SPACE

=

secon[^]drate

ADD HYPHEN

left^oover

REMOVE HYPHEN

^M
Dashing-no?

EM DASH (—)

^N
1914-1918

EN DASH (-)

italic

ITALIC

boldface

BOLDFACE

~~remove underline~~

REMOVE UNDERLINE

~~CASE~~

LOWERCASE

case

UPPERCASE

case

SMALL CAPS

Writers, editors, and designers use special symbols to mark changes such as ~~deleting~~, posing trans, or ^{substituting} ~~correcting~~ words or phrases. If you change your mind about a ~~deletion~~, place dots beneath it. Remove a comma by circling it. Add a period with a circled dot. If two words run together, insert a straight line and a space mark.

run in

To combine two paragraphs, connect them with a line and note the comment "run-in" in the margin. (Circling notes prevents the typesetter from confusing comments with content.)

Insert two short lines to hyphenate a word such as ⁼secon[^]drate. When removing a hyphen, close up the left^oover space. To replace a hyphen with an em dash^M-a symbol that expresses a grammatical break-write a tiny ^Mm above the hyphen. If a manuscript indicates dashes with double hyphens^N-like this-

the typesetter or designer is expected to convert them without being told. Use an en dash, not a hyphen, to connect two numbers, such as 1914-1918.

In addition to correcting grammar, spelling, punctuation, and clarity of prose, editors indicate typographic styles such as italic (with an underscore) and boldface (with a wavy line). Underlining, which is rarely used in formal typography, is removed like this. Draw ~~A Line Through A Capital~~ letter to change it to lowercase. underline a letter with three strokes to capitalize it. Use two underlines to indicate small capitals.

Double-space the manuscript and leave a generous margin to provide room for comments and corrections. Align the text flush left, ragged right, and disable automatic hyphenation.

Don't mark manuscripts or proofs with Post-It notes. They can fall off, block the text, and make the document hard to photocopy.

Editing an electronic file and allowing the author to see the changes is called *redlining* (also referred to as “editing online”). Basic housekeeping includes removing all double spaces and converting hatches (a.k.a. “dumb quotes”) to quotation marks and apostrophes (a.k.a. “smart quotes”). The editor need not point out these changes to the author.

Changes to the structure and wording of the text must be communicated to the author. A visual convention is needed for showing ~~deleted~~ and **added** material. ~~Words to be removed~~ are typically struck out, and words **added or substituted** can be underlined, highlighted, or **rendered in color**. A line in the margin indicates that a change has been recommended. [Queries to the author are set off with brackets.]^A

Underlining, or striking out, punctuation is visually confusing, so the editor often strikes out an entire word, ~~or phrase,~~ **or phrase**—and types in the freshly punctuated passage as an addition. To hyphenate a word such as ~~second-rate~~ **second-rate**, strike it out and add the hyphenated form. When converting hyphens to en dashes (1914–18)—or changing double hyphens to em dashes—the editor simply keys them in. Typographic styles such as *italic*, **boldface**, and SMALL CAPITALS can also be changed directly.

Although redlining is wonderfully fluid and direct, it can be dangerous. The editor must scrupulously remove all traces of the editing process before releasing the file for design and typesetting. Potential disasters include words that are stucktogether, a missing , or a forgotten comment to the author [Are you nuts?].

A. Queries to the author can also take the form of footnotes. Identify these notes with letters, so they are not confused with footnotes that belong to the text.

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| EDITORIAL CHANGE | MARK IN TEXT | MARK IN MARGIN | EDITORIAL CHANGE | MARK IN TEXT | MARK IN MARGIN |
|--------------------------|-----------------------|-------------------|--|-------------------------|----------------|
| delete | delete | e | letterspace | LETTERS PACE | (/s) |
| delete and close up | delete and close up | e | close up | close up | ^ |
| let it stand (stet) | let it stand | (stet) | insert space | insert space | # |
| insert text or character | insert | text | reduce space | reduce space | less # |
| run in paragraph | run in paragraph | (run in) | transpose | posetrans | (tr) |
| start new paragraph | start new paragraph | # | flush right | flush right | (fr) |
| insert punctuation | insert punctuation | ^ | flush left | flush left | (fl) |
| change punctuation | change punctuation | / | indent 1 em | indent 1 em | □ |
| insert hyphen | insert hyphen | = | move to next line | move to next line | (T.O.) |
| insert parentheses | insert parentheses | (p) | superscript | superscript | ^ |
| insert en or em dash | insert en dash | <u>N</u> <u>M</u> | align vertically | align vertically | |
| insert quotes | insert quotes | “ ” | align horizontally | align horizontally | == |
| capitalize | capitalize | (cap) | spell out abbreviation | spell out abbrev. | (SP) |
| change to lowercase | LOWERCASE | (lc) | use ligature | use ligature (flour) | f |
| change to small caps | small caps | (sc) | query that cannot be resolved by proofreader | query | (?) |
| change to bold | bold | (bf) | | | |
| change to roman | roman | (rom) | | | |
| wrong font | wrong font | (wf) | | | |

Proofreader's marks derived from The Chicago Manual of Style and David Jury, About Face: Reviving the Rules of Typography (East Sussex: Rotovision, 2001). Marking conventions do vary slightly from source to source.

PROOFREADING takes place *after* an edited manuscript has been designed and typeset. New errors can appear at any time during the handling of a document, and old errors previously unrecognized—can leap to the eye once the text has been set in type. The proofreader corrects gross errors in spelling, grammar, and fact, but avoids changes in style and content. Changes at this stage are not only expensive, but they can affect the page design and introduce new problems.

Proofreading is a different task from editing, although the editor may play a role in it, along with or in addition to the author or client. Although the designer or typesetter should not be given the role of proof reader, designers must nonetheless inspect their work carefully for errors before sending it back to the editor, author, or client.

Mark all corrections in the margin of the proof, and indicate the position of changes within the text. Don't write between the lines. Many of the same interline symbols are used in proofreading and in copy editing, but proofreaders use an additional set of flags for marginal notes.

Don't obliterate what is being crossed out and deleted so the typesetter can read it.

Mark all changes on one master proof. If several copies of the proof are circulated for approval, one person (usually the editor) is responsible for transferring corrections to a master copy.

Don't give the designer a proof with conflicting or indecisive comments.

SC TYPES OF proofs Depending on how a project is organized and produced, some or all of the following proofs may be involved.

Galley proofs are typically supplied in a book-length project. They consist of text that has been typeset but not paginated and do not yet include illustrations.

Page proofs are broken into pages and include illustrations, page numbers, running heads, and other details.

Revised proofs include changes that have been recommended by the proofreader and input by the designer or typesetter.

Printer's proofs are generated by the printer. At this phase, changes become increasingly costly, complex, and ill-advised. In theory, one is only looking for printers' errors—not errors in design or verbal style—at this stage. Printer's proofs might include blue lines (one color only) and/or color proofs.

r. The designer and typesetter may be the same person. In a design studio, as opposed to a publishing house, designers are generally responsible for typesetting.

Think more, design less.

Many desperate acts of design (including gradients, drop shadows, and the gratuitous use of transparency) are perpetrated in the absence of a strong concept. A good idea provides a framework for design decisions, guiding the work.

Say more, write less.

Just as designers should avoid filling up space with arbitrary visual effects, writers should remember that no one loves their words as much as they do.

Spend more, buy less.

Cheap stuff is usually cheap because of how it's made, what it's made of, and who made it. Buy better quality goods, less often.

May your thoughts be deep and your wounds be shallow.

Always work with a sharp blade. Although graphic design is not a terribly dangerous occupation, many late-night accidents occur involving dull X-Acto blades. Protect your printouts from senseless bloodshed.

Density is the new white space.

In an era of exurban sprawl, closely knit neighborhoods have renewed appeal. So, too, on page and screen, where a rich texture of information can function better than sparseness and isolation.

Make the shoe fit, not the foot.

Rather than force content into rigid containers, create systems that are flexible and responsive to the material they are intended to accommodate.

Make it bigger. (Courtesy of Paula Scher)

Amateur typographers make their type too big. The 12-point default—which looks okay on the screen—often looks horsey on the page. Experienced designers, however, make their type too tiny: shown here, 7.5 point Scala.

It is easier to talk than to listen.

Pay attention to your clients, your users, your readers, and your friends. Your design will get better as you listen to other people.

Design is an art of situations.

Designers respond to a need, a problem, a circumstance, that arises in the world. The best work is produced in relation to interesting situations—an open-minded client, a good cause, or great content.

No job is too small.

A graphic designer can set out to change the world one business card at a time—as long as it is the business card of a really interesting person.

An interface calls attention to itself at its point of failure.

Design helps the systems of daily life run smoothly, letting users and readers ignore how things are put together. Design should sometimes announce itself in order to shed light on the system, exposing its construction, identity, personality, and politics.

The idea is the machine that makes the art. (Courtesy of Sol Lewitt)

A powerful concept can drive decisions about color, layout, type choice, format, and so on, preventing senseless acts of whimsy. (On the other hand, senseless acts of whimsy sometimes lead to powerful concepts.)

The early bird gets to work before everyone else.

Your best time for thinking could be early in the morning, late at night, or even, in rare circumstances, during class or between nine and five. Whether your best time is in the shower, at the gym, or on the train, use it for your hardest thinking.

Build the discourse.

Design is social. It lives in society, it creates society, and it needs a society of its own—a community of designers committed to advancing and debating our shared hopes and desires. Read, write, and talk about design whenever you can.

Go forth and reproduce.

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This beautifully designed book on understanding typography fills a big

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ELLEN LUPTON is one of America's preeminent design authors and educators. Her books include *Skin: Surface, Substance + Design*, *Design Culture Now*, *Mixing Messages*, and *Design Writing Research*, among many others. She is curator of contemporary design at Cooper-Hewitt, National Design Museum in New York, and director of the Graphic Design MFA program at Maryland Institute College of Art (MICA) in Baltimore.

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