



GRAPHIC DESIGN

08 Oct 2015

ANNOUNCEMENTS

Plan for PROG 02

DESIGN 04: Project Idea

Be bold and creative in your idea

DESIGN 05: Context Inquiry, Task Analysis, and Competitive Analysis

Next Week: User Studies and Data Analysis

Midterm in two weeks Thur 1-2:30pm

CS160 Spring 2016

MIDTERM ON 22 OCT

- In class
- 80 minutes
- Closed book & notes
- Review on Friday 16 Oct in Section
- If you are registered with the DSP office and have special needs, you will receive email from me about exam accommodations by Monday
- Midterm Room Mapping — TBA



360™

moto 360



moto 360™

moto 360™

moto 360™

moto 360™

moto 360™

WATCHES



FEED 02

\$150 CHECK



Also

many thanks to
Shana Hu

Check out

DeCal
**Working with
Typography**



GRAPHIC & PRODUCT DESIGN

TOPICS

Brief History of Graphic & Product Design

Simplicity and Elegance

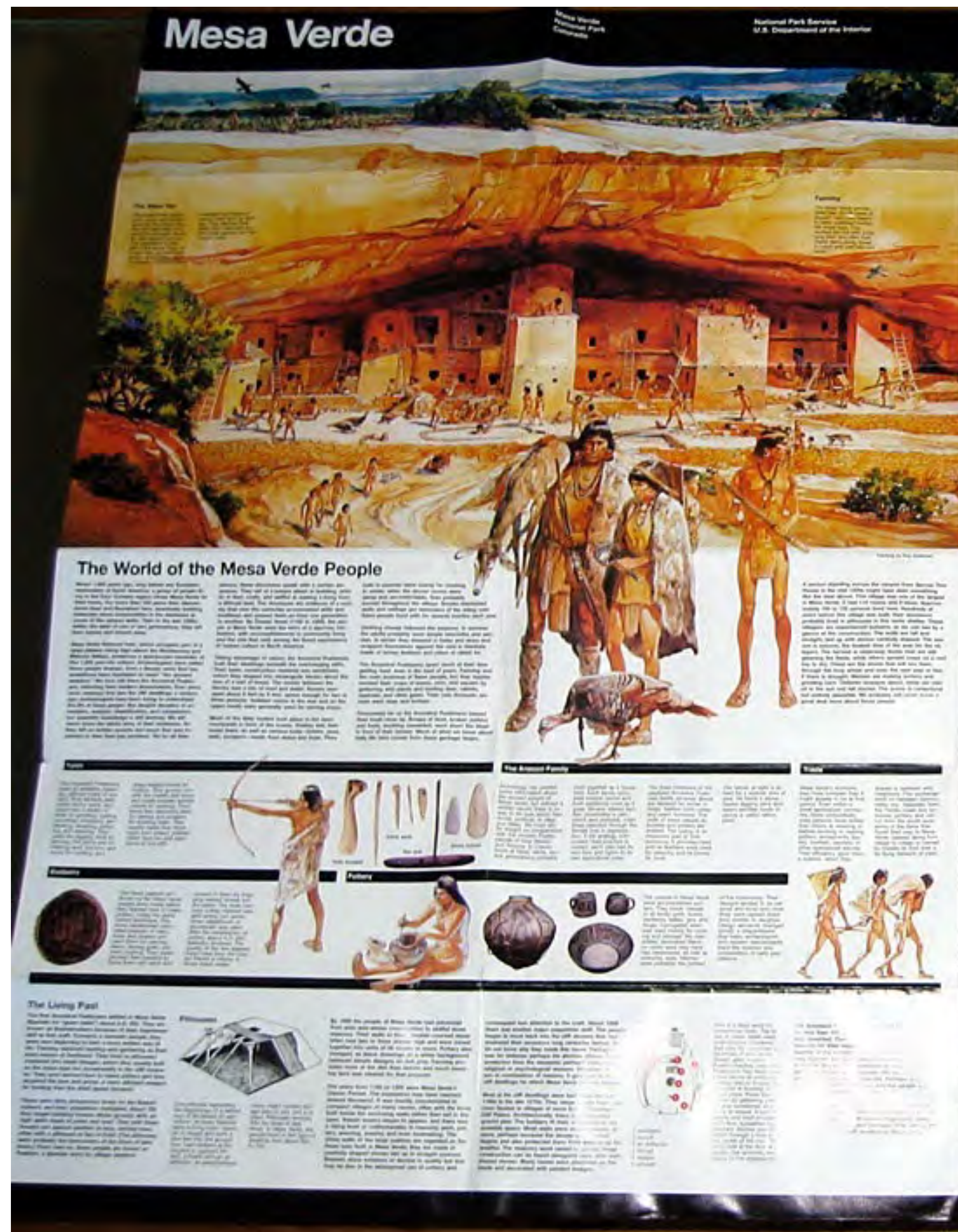
Color

Gestalt Principles

Typography

Composition

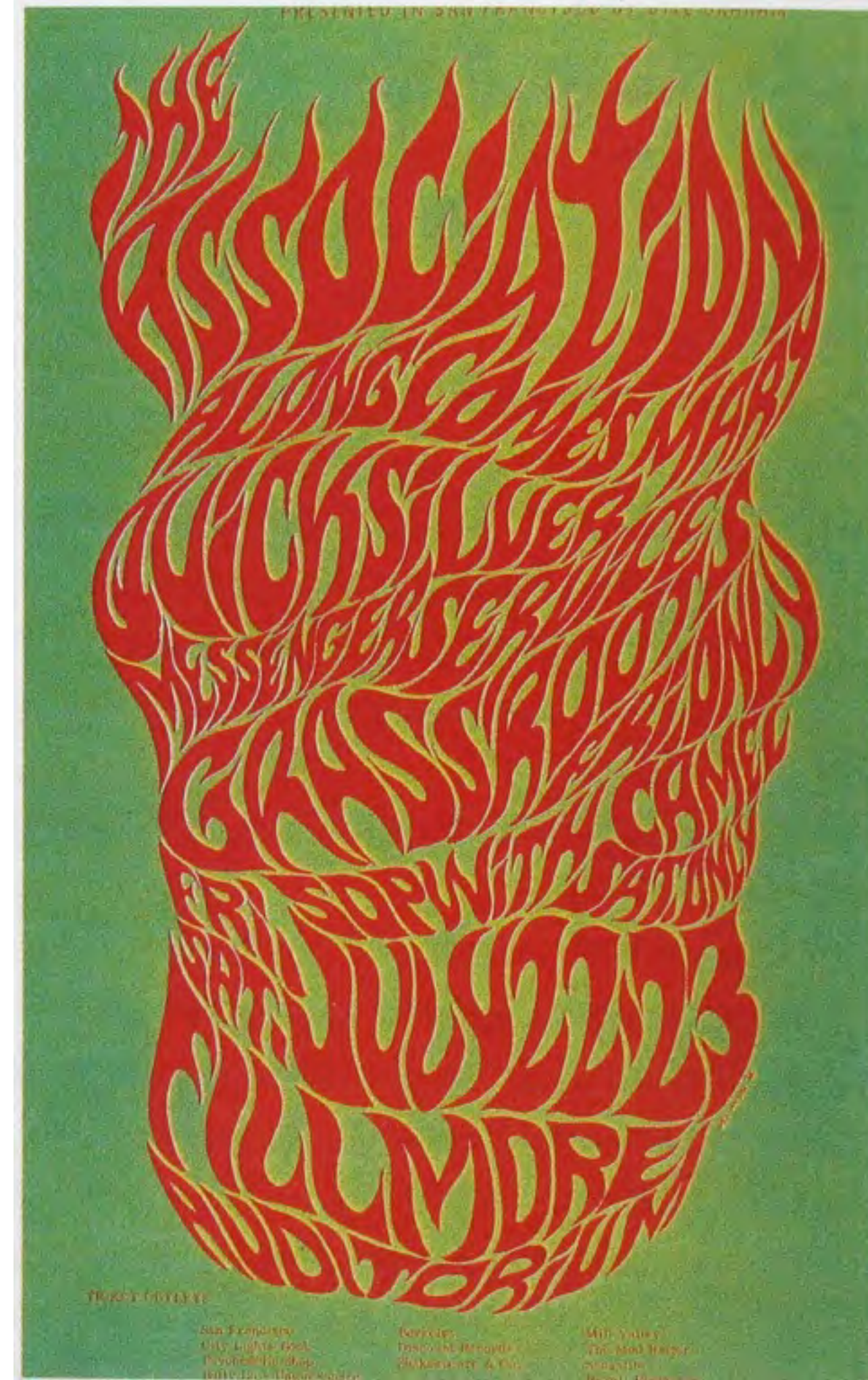
GRAPHIC DESIGN IS ABOUT COMMUNICATION



GRAPHIC DESIGN IS ABOUT INTERPRETATION

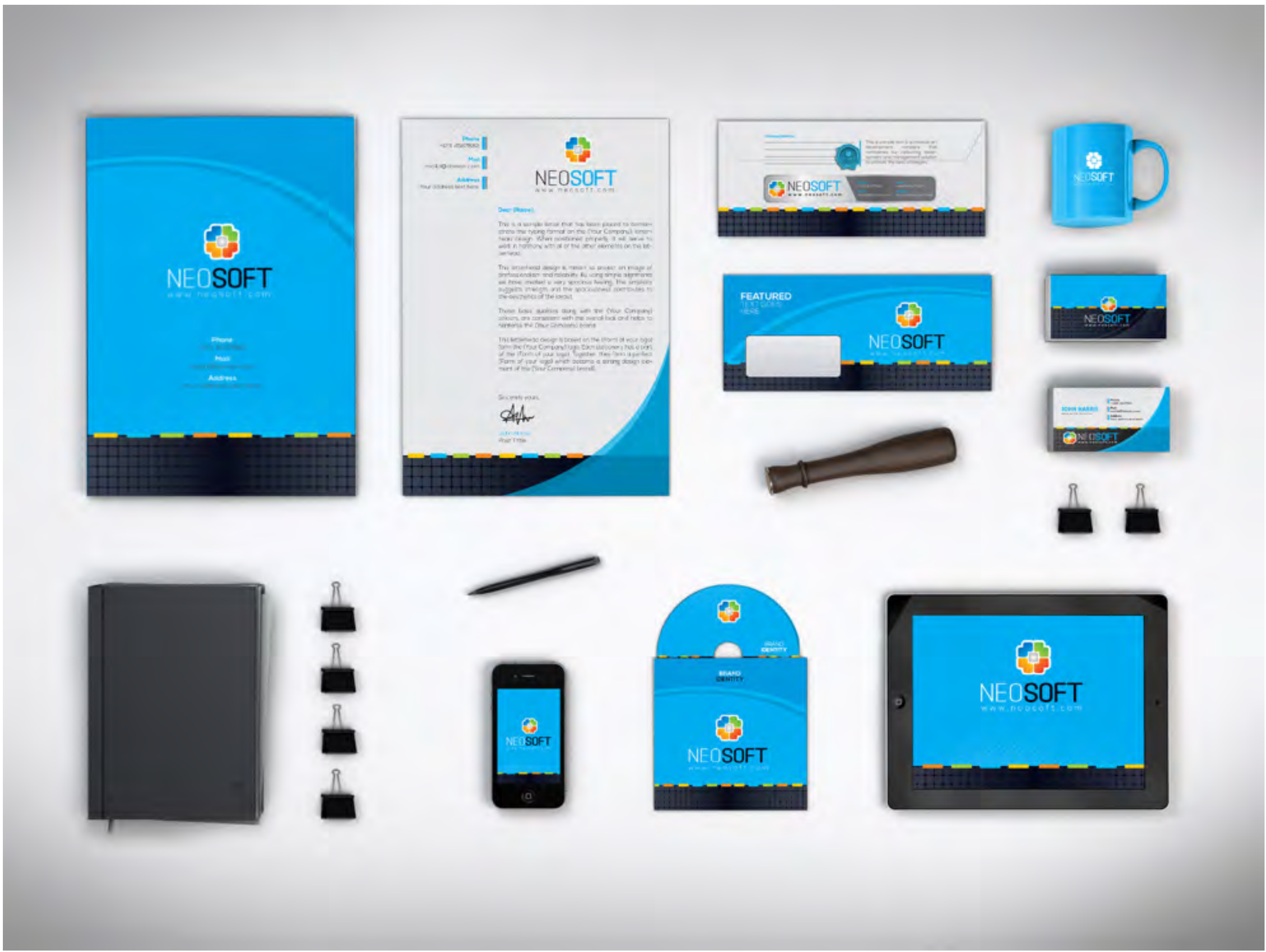


Max Huber, Poster, 1948

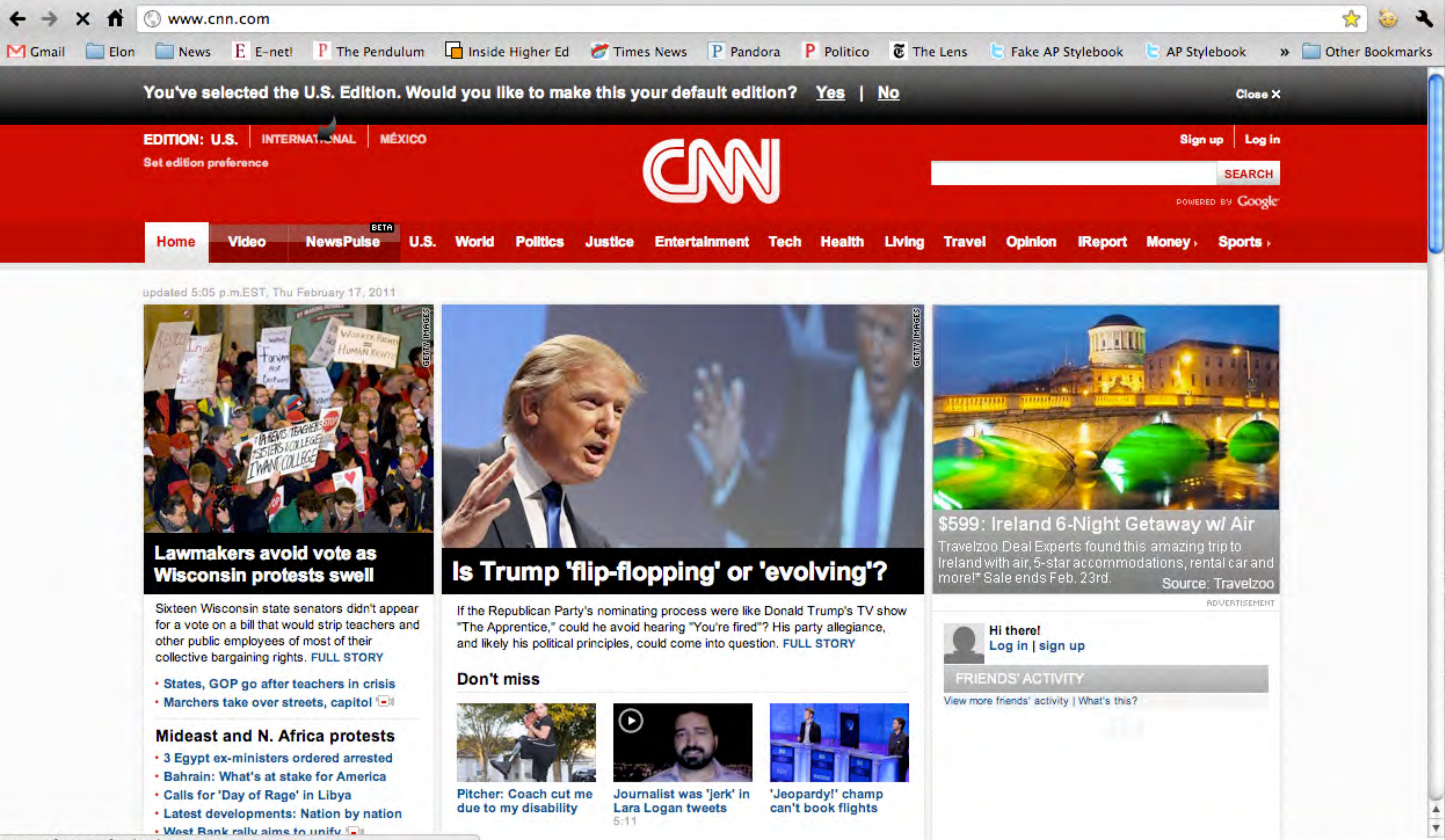


Wes Wilson, Poster, 1966

DESIGN SYSTEMS: CORPORATE IDENTITY



DESIGN SYSTEMS: CONTENT-DRIVEN SITES





TYPOGRAPHY

TYPOGRAPHY

Typography exists to honor content.

Read the text before designing it.

Choose a typeface that matches the character of the text.

LETTERPRESS



annū regni sedechie. Mēse autē quarto nona die mensis obtinuit famēs ciuitatem: et non erat alimenta p̄p̄o terre. Et dirupta ē ciuitas: et om̄es viri belatores eius fugerūt: egerūtq; de ciuitate nocte per viam porte que est inter duos muros et ducit ad ortū regis: caldais obsidentibus urbem in giro: et abierūt per viā que ducit in hecenui. Persecutus est autē caldeorū exercitus regem: et apprehenderūt sedechiā in deserto qd̄ est iuxta ihericho: et om̄es comitatus eius diffugerūt ab eo. Cūq; comprehēdisset regem adduxerunt eum ad regem babilonis in rebatha que est in terra emath: et locutus est ad eū iudicia. Et iugulauit rex babilonis filios sedechie in oculis eius: sed et om̄es principes iuda occidit in rebatha. Et oculos sedechie euit: et vinxit eum in compedibus. Et adduxit eū rex babilonis in babilonem: et posuit eū in domo carceris usq; ad diē mortis eius. In mense autē quinto decimo mēsis ipse est annus decimusnonus nabuchodonosor regis babilonis: venit nabuzardan princeps militie qui stabat coram rege babilonis in iherusalem: et incendit domū domini et domū regis: et om̄es domū iherusalē et om̄ne domū magnā igne combussit: et totum murū iherusalem per circuitū destruxit cunctus exercitus caldeorū qui erat cum magistro militie. De pauperibus autē p̄p̄i et de reliquo vulgo quod remanserat in ciuitate et de perfugis q̄ transfugerant ad regem babilonis et ceteros de multitudine: transtulit nabuzardan princeps militie de pauperibus vero terre reliquit nabuzardan princeps militie vinicosos et agricolas. Columnas quoq; terras que erant in

domo domini et bases et mare intum quod erat in domo domini conseruerunt caldei: et tulerūt om̄ne eo eo in babilonē. Et lebetes et creagras et psalteria et fialas et mortariola et oīa vasa terra q̄ in ministerio fuerāt tulerūt: et ydrias et thimiamateria et urceos et peluos et candelabra et mortaria et cyatos. Quotq; aurea aurea: et quotq; argēta argēta. Tulit magister militie columnas duas et mare unū et vitulos duodecim teros q̄ erāt sub basibus: q̄s fecerat rex salomō in domo dñi. Nō erat p̄d̄ eis oīm vasorū h̄p̄. De columnis autē: decem et octo cubiti altitudinis erāt i columnā una: et funicul⁹ duodecim cubitos circumbar eā. Porro grossitudo ei⁹ quatuor digitorū: et intussec⁹ caua erat: et capicella super utraq; terra. Altitudo capicelli unū quing; cubitos: et reticla et malagranata supra coronā in circuitū: om̄ia terra. Et fuerūt malagranata nonaginta sex dep̄dentia: et om̄ia malagranata centum reticla circumdabant. Et tulit magister militie saraia sacerdotē secundū: et ceteros custodes vestibuli. Et de ciuitate tulit eunuchū unū q̄ erat p̄posit⁹ sup viros bellatores: et septē viros de h̄p̄s q̄ videbāt faciem regis q̄ inuēti sūt in ciuitate: et scribā principē militū q̄ p̄batur tyrones: et sexaginta viros de p̄p̄o terre qui inuēti sūt i medio ciuitatis. Tulit autē eos nabuzardā magister militie: et duxit eos ad regē babilonis i rebatha. Et percussit eos rex babilonis: et interfecit eos i rebatha in terra emath. Et trāslat⁹ ē iuda de terra sua. Q̄ste ē p̄p̄o que trāstulit nabuchodonosor i anno septimo: iudeos tria milia: et vigintetres. In anno octauodecimo nabuchodonosor trāstulit de iherusalem aīas p̄d̄igēta sexaginta duas.

In anno vicesimo octavo nabuchodonosor transtulit nabuzardan magister militie animas iudeorū septingentas quadraginta quinq;. Om̄es ergo anime: quatuor milia sexcentē. Et factum est in tricesimo septimo anno trāsmigrationis ioachim regis iuda duodecimo mense vicesima quinta mēsis eleuauit euilmerodach rex babilonis ipso anno regni sui caput ioachim regis iude: et eduxit eum de domo carceris: et locutus est cum eo bona. Et posuit thronū eius sup thronos regum qui erant post se in babilonē: et mutauit vestimenta carceris eius: et comedit bar panem coram eo semp cunctis diebus vite sue. Et cibaria ei⁹ cibaria perpetua dabātur ei a rege babilonis statuta per singulos dies: usq; ad diē mortis sue cunctis diebus vite eius.

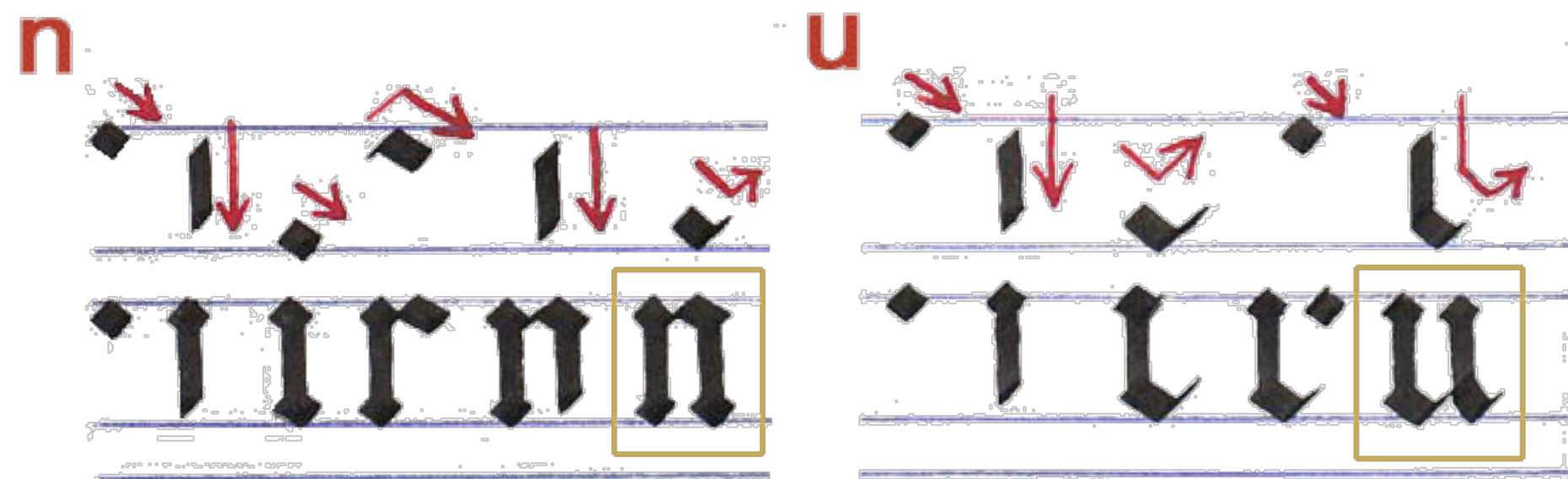
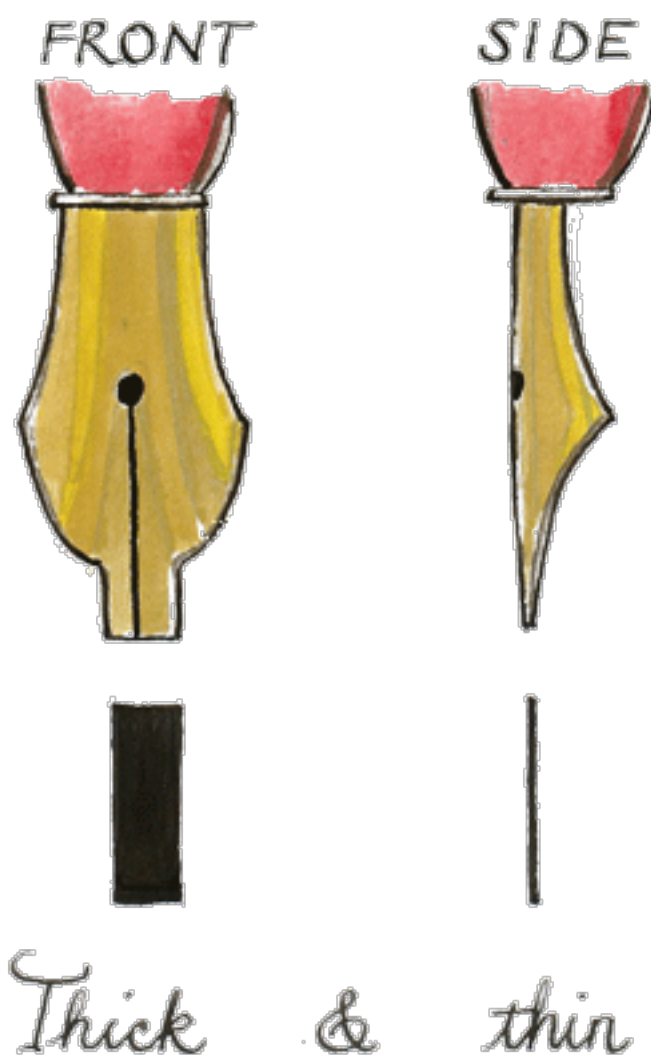
Interpretatio iheremie

Quod factum ē postq; in captiuitate redactus est iherusalem et iherusalem deserta est: sedit iheremias propheta fletus et plāxit lamentatione hac in iherusalem: et amaro animo suspicatus et euasus dixit. **Aleph** Quomodo sedet sola ciuitas plena p̄p̄o. Facta est q̄si vidua domina gentiū: princeps puicāz facta est sub tributo. **Beth** Ploro ploro in nocte: et lacrimę eius in maxillis eius. Non est qui consolatur eam: et omnibus caris eius. Om̄es amici ei⁹ sp̄uerūt eā: et facti sunt ei inimici. **Gmel** Migravit iudas p̄pter afflictionē et multitudinē seruitutis. Habitauit inter gentes: nec inuenit requiē. Om̄es persecutores ei⁹ apprehenderūt

eam inter angustias. **Delech** Vire syon lugens: eo q̄ nō sūt qui veniant ad solennitatem. Om̄es porte eius destrude: sacerdotes ei⁹ gentes. Virgines eius squalide: et ip̄a oppressa a maritudine. **He** Facti sūt hostes ei⁹ in capite: et inimici ei⁹ locupletati sūt: quia dñs locutus est sup eā p̄pter multitudinē iniquitatū eius. Paruuli ei⁹ ducti sūt in captiuitatem: ac faciem tribulantis. **Vau** Et egressus ē a filia syon om̄is decore ei⁹. Facti sūt principes eius velut arietes non inuenti: res pasqua: et abierunt absq; fortitudine ante faciem subsequētis. **Zai** Recordata est iherusalē diē afflictionis sue: et p̄uaricationis om̄iū desiderabiliū suorū: que habuerat a diebus antiquis: cum caderet p̄p̄us eius i manu hostili: et non esset auxiliator. Viderūt eā hostes: et deriserūt sabbata ei⁹. **Heth** Peccatū peccauit iherusalē: propterea instabilis facta est. Om̄es qui glorificabāt eam sp̄uerūt illā: quia viderunt ignominia ei⁹. Ip̄a autē genuis: et conuersa reuertit. **Teth** Bordes eius in pedibus eius: nec recordata est finis sui. Deposita est vehementer: nō habens consolatorē. Vide domine afflictionē meā: quoniā credus est inimicus. **Ioth** Manū suā misit sp̄tis ad om̄ia desiderabilia eius: quia vidit gentes ingressas sanctuariū suū: de quibz p̄cepas ne intrarent in ecclesiam tuā. **Laph** Om̄is p̄p̄us eius gentis: et quereis panem. Deceunt p̄p̄iosa queq; pro cibo: ad refoillādā animā. Vide domine et cōsidera: qm̄ facta sum vilis. **Lameth** Quos om̄es qui transitis per viam aduertite et videte: si est dolor sicut dolor me⁹. Quoniā vindemiauit me ut locut⁹ est dñs:

GUTENBERG BIBLE

TYPICAL
(WESTERN)
CALLIGRAPHY NIB



gothic textualis quadrata version 1 copyright katharine-scarfe beckett 2009





man Sabt, the most famous artist of the
heaven of typography together with Her-
god and feels as if he were in the seventh
the quick plow for limbs over the last

Brother

LETTERPRESS



upper case

Upper Case.



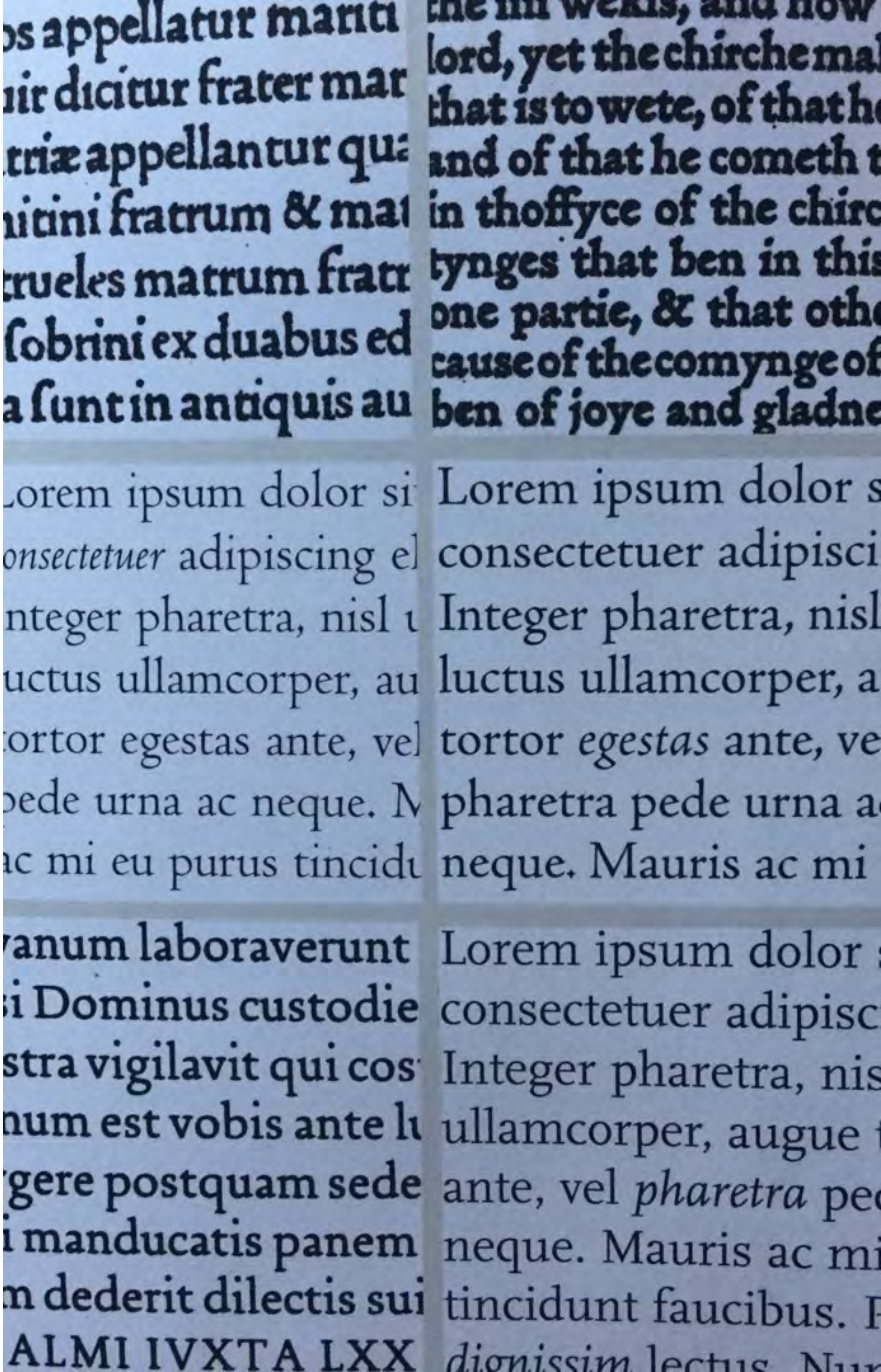
lower case

Lower Case.
A PAIR OF CASES.

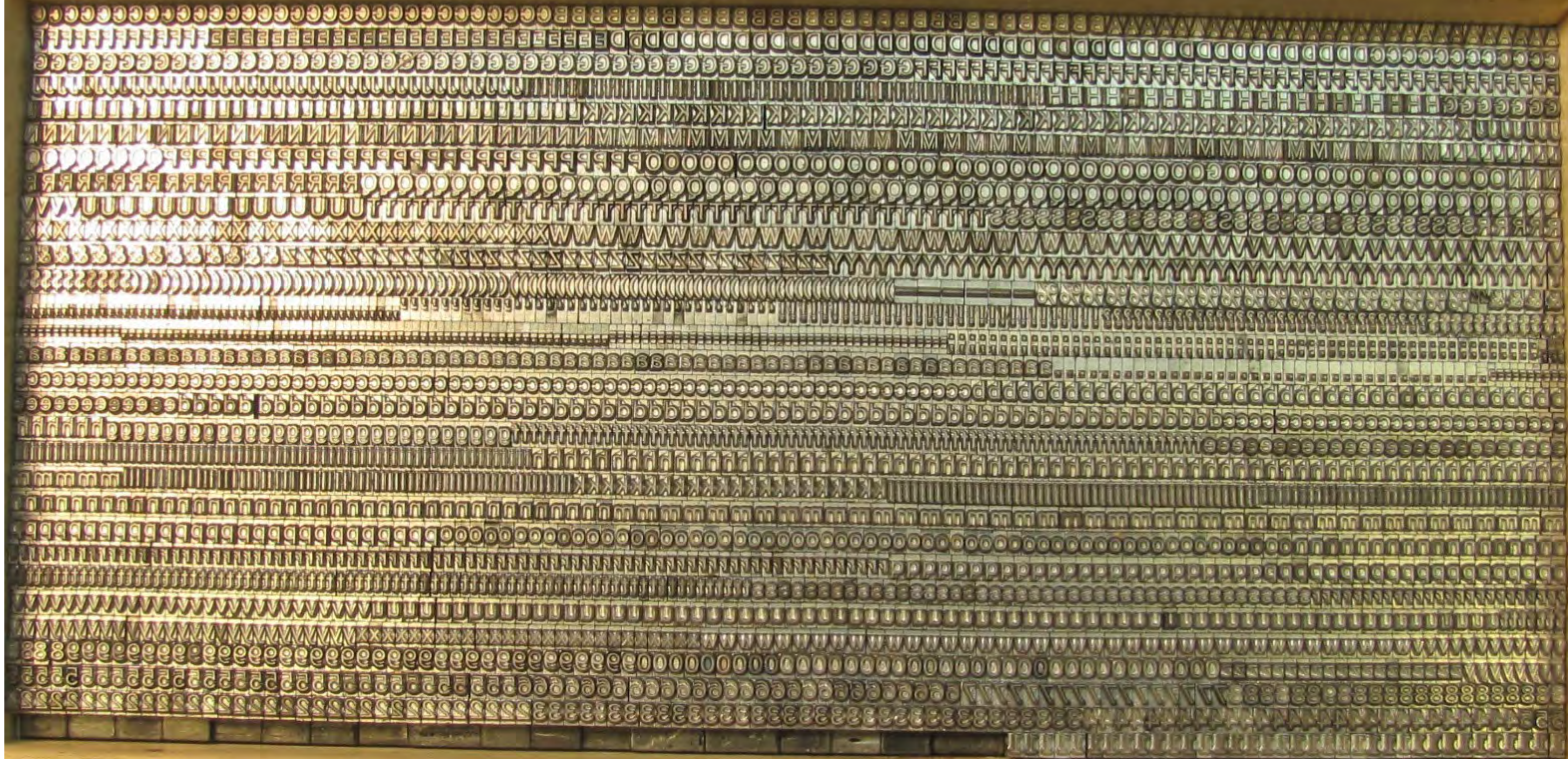


TYPOGRAPHY

Nicolas Jenson	Golden Type
1465	1890
Centaur	Adobe Jenson
1912	1995
Ruit	Scala
1990s	1991



What fonts originally were like



Fonts are now **digital files** that contain letterforms.

Typefaces are the look of all characters in a font.

!	"	#	\$	%	&	'	()	*	+	,	-	.	/	0
1	2	3	4	5	6	7	8	9	:	;	<	=	>	?	@
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_	`
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p
q	r	s	t	u	v	w	x	y	z	{		}	~	Ä	Å
Ç	É	Ñ	Ö	Ü	á	à	â	ä	ã	å	ç	é	è	ê	ë
í	ì	î	ï	ñ	ó	ò	ô	ö	õ	ú	ù	û	ü	†	°
¢	£	§	•	¶	ß	®	©	™	ˆ	˚	≠	Æ	Ø	∞	±
≤	≥	¥	μ	∂	Σ	Π	π	∫	ª	º	Ω	æ	ø	¿	¡
¬	√	f	≈	Δ	«	»	...	À	Ã	Õ	Œ	œ	–	—	“
”	‘	’	÷	◊	ÿ	ÿ	/	€	‹	›	fi	fl	‡	·	,
„	‰	Â	Ê	Á	Ë	È	Í	Î	Ï	Ì	Î	Ò	Ô	Ò	Ú
Ù	ı	ˆ	˜	-	˘	˙	˚	¸	˝	˛	˜	˘	˙	˚	¸
ø	Ý	ý	þ	þ	×	¹	²	³	½	¼	¾	—	·	¤	

Helvetica Light
Helvetica Regular
Helvetica Bold

Helvetica is a **typeface**.

It is a **font-family** which is made up of **fonts**.

A **font** is a specific size and weight of a **typeface**.

TYPEFACE VS FONT

Agnóstick
garamond

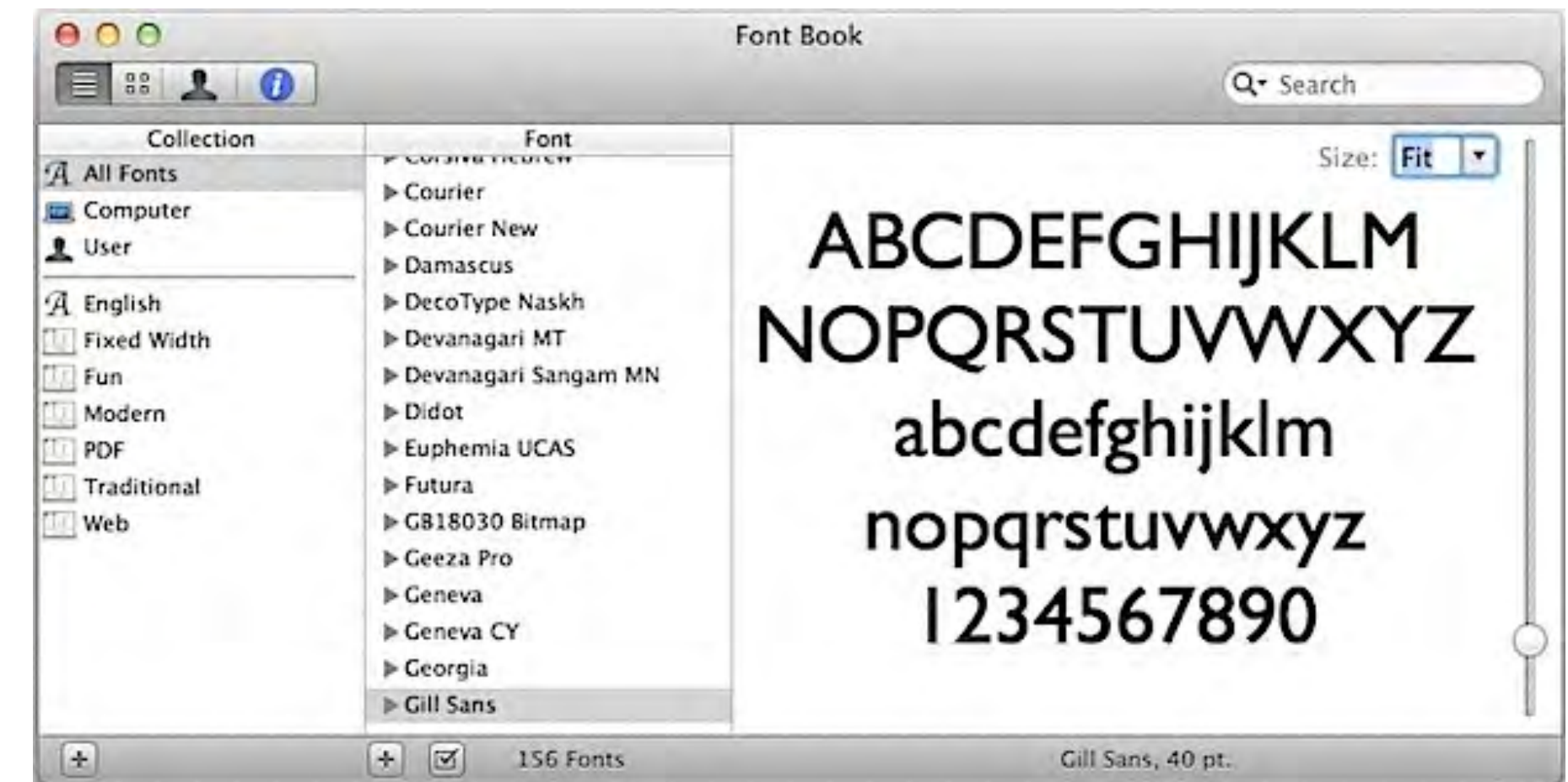
Agnóstick
Garamond 3

Agnóstick
adobe garamond pro

Agnóstick
Garamond BE

Agnóstick
granjon

Agnóstick
ITC Garamond

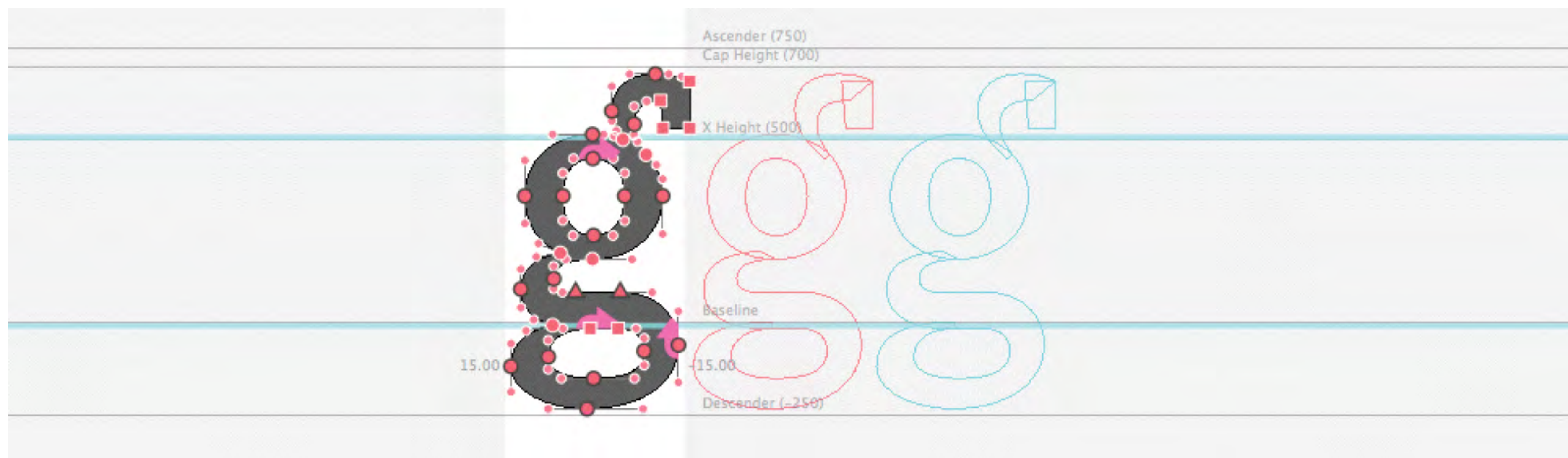


typeface is the design of the letterform
font is the delivery mechanism

you design a **typeface**
you make a **font**

A **font** is what you use
a **typeface** is what you see

RoboFont







FULL MOON.

ST. MICHAEL'S TEMPERANCE BAND !

Prof. V. Yeager, Leader, will give a

GRAND MOONLIGHT

EXCURSION

On the Steamer

BELLE !

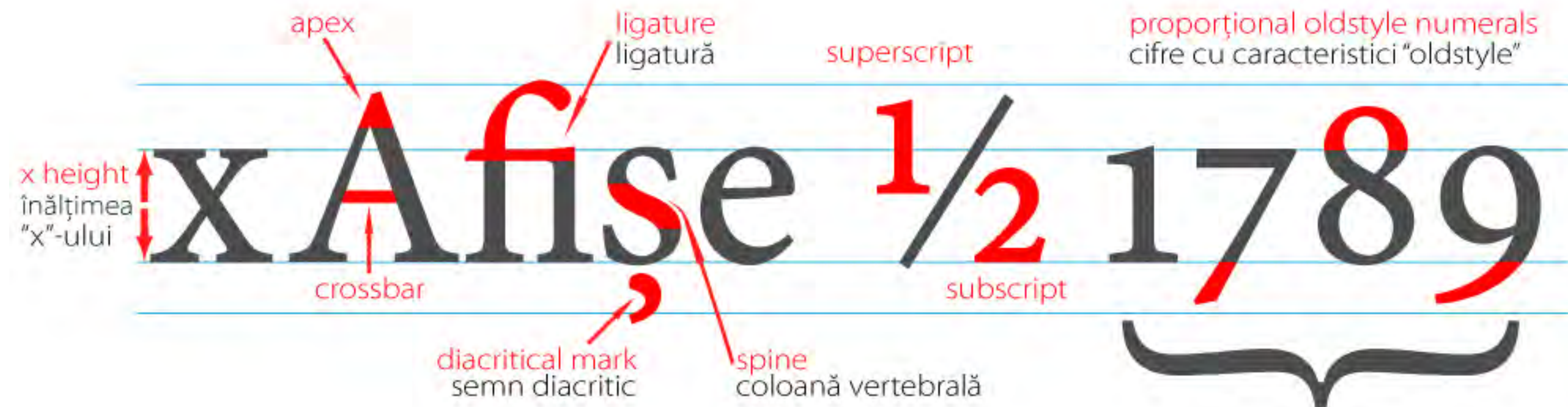
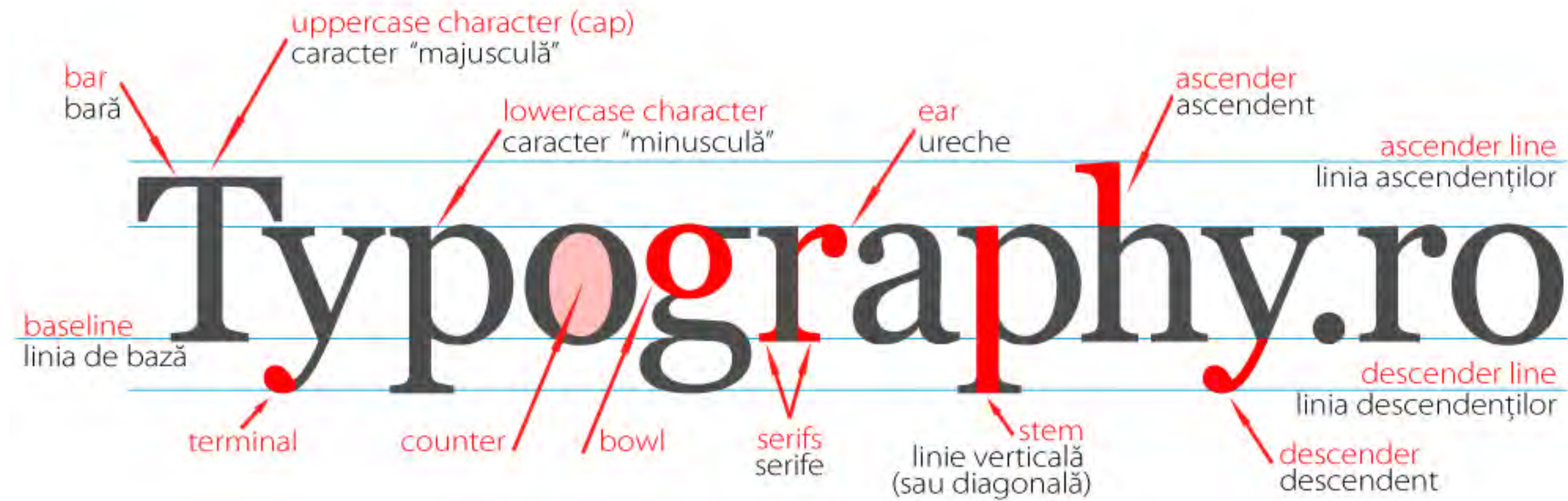
**To Osbrook and Watch Hill,
On Saturday Evening, July 17th,**

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.

TYPEFACE ANATOMY



SANS SERIF

No serifs
anywhere

No stress because
there's no thick/thin

Sans serif

No thick/thin transition
in the strokes

Franklin Gothic

Antique Olive Formata

Gill Sans Franklin Gothic

Folio Syntax

OLDSTYLE OR HUMANIST



Goudy Palatino Times

Baskerville Garamond

MODERN

Vertical stress

Serifs on lowercase letters are thin and horizontal

Modern

Bodoni Poster Compressed

Radical thick/thin transition in the strokes

Bodoni Times Bold

Fenice, Ultra Walbaum

SLAB SERIF

Serifs on lowercase letters are
horizontal and thick (slabs)

Vertical
stress

Slab serif

Clarendon

Very little or no thick/
thin transition, or
contrast, in the strokes

Clarendon Memphis

Memphis Extra Bold

New Century Schoolbook

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 typefaces 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.

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.

SIZE

12 points
equal 1 pica

6 picas
(72 points)
equal 1 inch



Big

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.

SIZE

8 PT

A DISPLAY or *headline* style looks spindly and weak when set at small sizes. Display styles are intended for use at 24 pts. and larger.

A

Basic TEXT styles are designed for sizes ranging from 9 to 14 pts. Their features are strong and *meaty* but not too assertive.

A

CAPTION styles are built with the heaviest stroke weight. They are *designed* for sizes ranging from 6 to 8 pts.

A

TYPE FAMILY

standard

emphasis

integrates with text when full-size caps would stand out awkwardly

emphasis within a hierarchy

combinations

The roman form is the core of

ADOBE GARAMOND PRO REGULAR

Italic letters, which are based on

ADOBE GARAMOND PRO ITALIC

SMALL CAPS HAVE A HEIGHT

ADOBE GARAMOND PRO REGULAR (ALL SMALL CAPS)

Bold (and semibold) typeface

ADOBE GARAMOND PRO BOLD AND SEMIBOLD

Bold (and semibold) typeface

ADOBE GARAMOND PRO BOLD AND SEMIBOLD ITALIC

ITALICS

Italics are not *slanted* letters.

TRUE
ITALIC

TYPE CRIME:

PSEUDO ITALICS

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

Some italics aren't slanted at all.
In the type family Quadraat, the
italic form is upright.

QUADRAAT, *designed by Fred Smeijers, 1992.*

ITALICS

SOAP

Proxima Nova Bold

SOAP

Slanted / Fake Italic

SOAP

Proxima Nova Bold Italic

Helvetica Neue 25 Ultra Light

Helvetica Neue 35 Thin

TYPE WEIGHT

Helvetica Neue 45 Light

Helvetica Neue 55 Roman

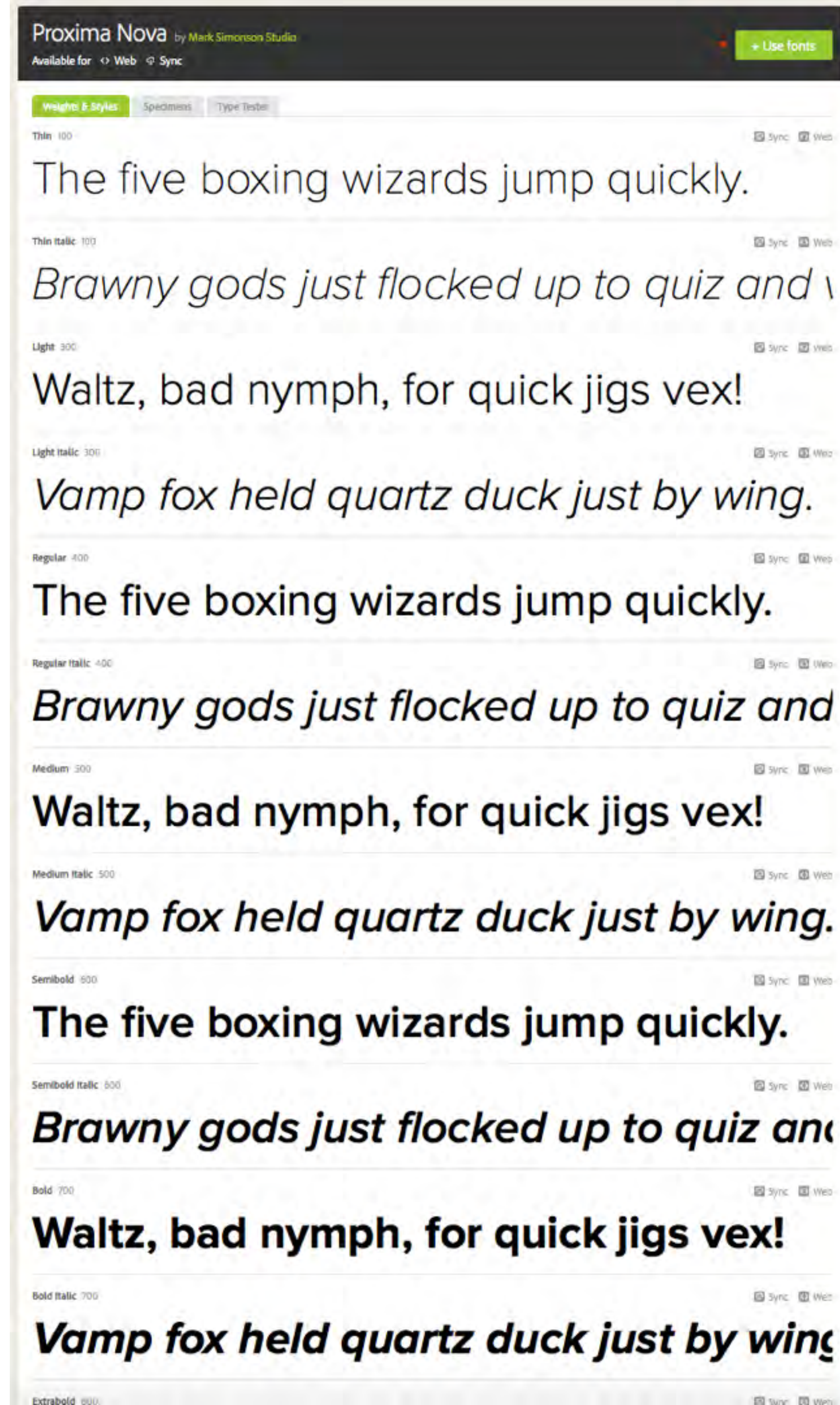
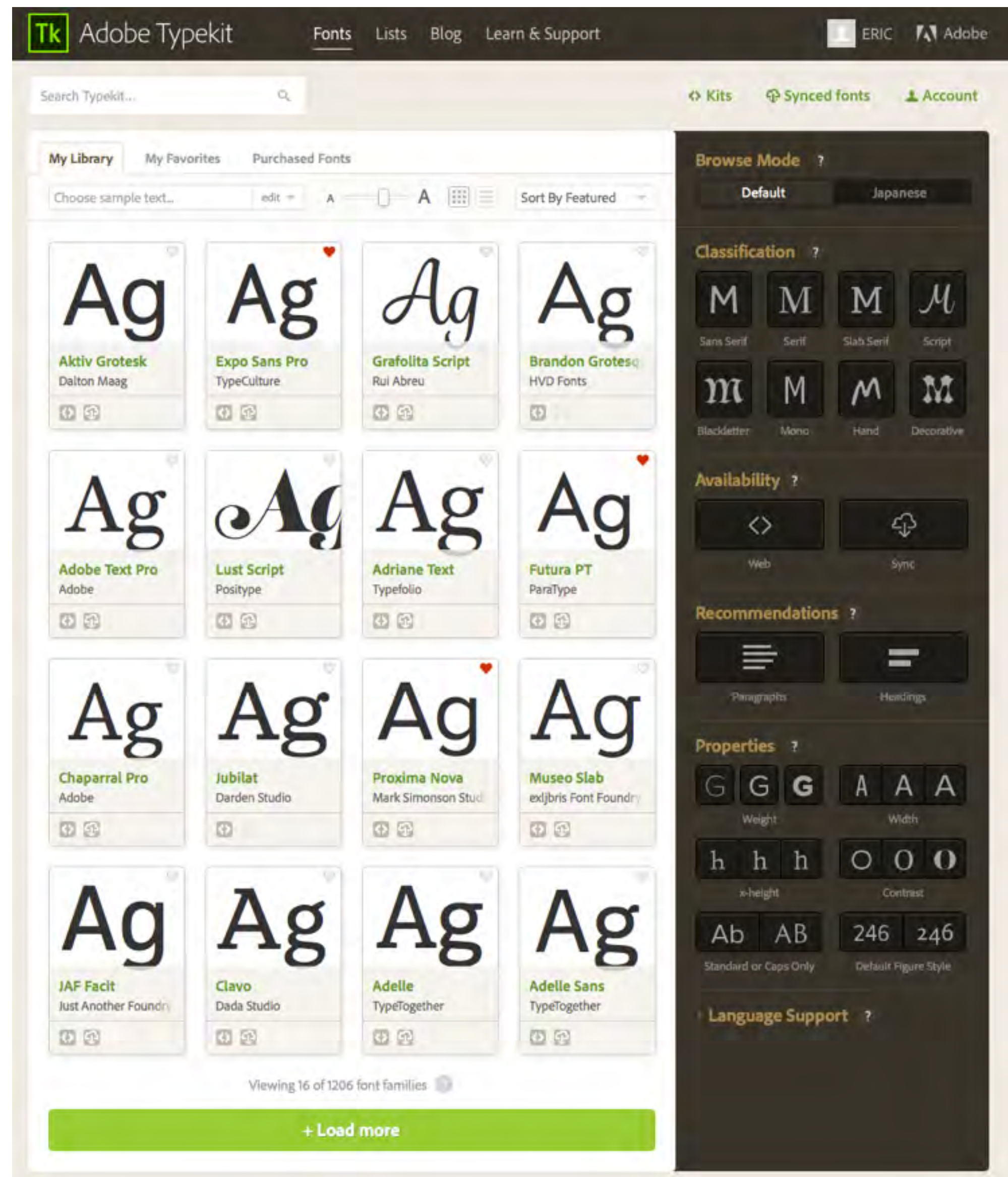
Helvetica Neue 65 Medium

Helvetica Neue 75 Bold

Helvetica Neue 85 Heavy

Helvetica Neue 95 Black

TYPE KIT



SPACING

I dream of robot delights.

I dream of robot delights.

I dream of robot delights.

I dream of robot delights.

I dream of robot delights.

No kerning
A V W a
Kerning applied
A V W a

Proportional
Monospace

Letterspace (tracking) — the consistent degree of increase (or sometimes decrease) of space between **letters** to affect density in a line or block of text.

Kerning — adjusting the spacing between characters in a proportional font, usually to achieve a visually pleasing result.

ALIGNMENT

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

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

The edges of a centered column are often dramatically uneven.

Center text should be broken to emphasize a key phrase
such as

midterm tomorrow
rather than saying midterm
tomorrow

Breaking lines in this manner is called
breaking for sense.

ALIGNMENT

Justified text which has even edges on both left and right sides of the column, has been the norm since the invention of printing with movable type, which enabled the creation of page after page of straight-edged columns. In metal type setting the printer justified each line by hand using small metal spacers to alter spaces between words and letters and thus make all the lines the same length. Digital typesetting performs the same labor automatically. Justified type makes efficient use of space. It also creates a clean, compact shape on the page. Ugly gaps can occur, however, when the line length is too short in relations to the size of type used.

ALIGNMENT

In flush-left/ragged right text, the left-edge is hard and right edge soft. Word spaces do not fluctuate, so there are never big holes inside of the lines of text. This format, which was used primarily for setting poetry 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 that forms along the right edge. A good rag looks pleasantly uneven, with no lines that are excessively long or short. A rag is considered bad when it looks too even or too uneven or when it begins to form regular shapes like wedged moons or diving boards.

ALIGNMENT

Flush right / ragged left is a variant of the more familiar flush left setting. 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. Used in smaller blocks, however, flush right text forms effective margin notes, sidebars, pull quotes, or passages that comment on the main body or image. A flush or ragged edge can suggest attraction or repulsion between chunks of information.

ALIGNMENT

Flush right / ragged left is a variant of the more familiar flush left setting. 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. Used in smaller blocks, however, flush right text forms effective margin notes, sidebars, pull quotes, or passages that comment on the main body or image. A flush or ragged edge can suggest attraction or repulsion between chunks of information.

PUNCTUATION

That robot is 5' 2" tall.

It's a dog's life.

He said, "That's what she said."

PUNCTUATION

Warning: Typography Crime



PUNCTUATION

- hyphen connects two things that are intimately related, usually words that function together as a single concept or work together as a joint modifier

tie-in, toll-free call, two-thirds

- en dash connects things that are related to each other by distance

147–48, pre–World War II, May–September not May-September

- em dash em dash allows additional thought to be added within a sentence by sort of breaking away from that sentence—as I've done here.

tie-in, toll-free call, two-thirds

PUNCTUATION

Warning: Typography Crime

These interruptions—especially the snide remarks--are killing my buzz.

He lived 1890–1941. Kapek lived longer (1891-1956).

It's ok to be second-best , but never, ever second–best.

EXPRESSING HIERARCHY

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**. If you want to mix font families, dust the sizes so the x-heights align. xX

EXPRESSING HIERARCHY

I

Division of angels

A. Angel

B. Archangel

C. Cherubim

D. Seraphim

II

Ruling body of clergy

A. Pope

B. Cardinal

C. Archbishop

D. Bishop

III

Parts of a text

A. Work

B. Chapter

C. Section

D. Subsection

symbols, indents
and linebreaks

Division of angels

Angel

Archangel

Cherubim

Seraphim

Ruling body of clergy

Pope

Cardinal

Archbishop

Bishop

Parts of a text

Work

Chapter

Section

Subsection

indents and line
breaks only

DIVISION OF ANGELS

Angel

Archangel

Cherubim

Seraphim

RULING BODY OF CLERGY

Pope

Cardinal

Archbishop

Bishop

PARTS OF A TEXT

Work

Chapter

Section

Subsection

font change, indents,
and line breaks

DIVISION OF ANGELS

angel

archangel

cherubim

seraphim

RULING BODY OF CLERGY

pope

cardinal

archbishop

bishop

PARTS OF A TEXT

work

chapter

section

subsection

alignment, font change,
and line breaks

COMBINING TYPE: CONCORDANT

Typography

FROM WIKIPEDIA, THE FREE ENCYCLOPEDIA

Typography is the art and technique of arranging type, type design, and modifying *type glyphs*. Type glyphs are created and modified using a variety of illustration techniques. The arrangement of type involves the selection of typefaces, point size, line length, leading (line spacing), adjusting the spaces between groups of letters (tracking) and adjusting the space between pairs of letters (kerning).

Adobe Caslon Semibold
48 pt

Adobe Caslon Smallcaps, 14 pt

Adobe Caslon Regular, 12 pt

COMBINING TYPE: CONTRASTING

Typography

From Wikipedia, the free encyclopedia

Typography is the art and technique of arranging type, type design, and modifying *type glyphs*. Type glyphs are created and modified using a variety of illustration techniques. The arrangement of type involves the selection of typefaces, point size, line length, leading (line spacing), adjusting the spaces between groups of letters (tracking) and adjusting the space between pairs of letters (kerning).

Gill Sans Light
48 pt

Gill Sans Light, 16 pt

UC Berkeley OldStyle, 12 pt

COMBINING TYPE: CONFLICTING

Typography

From Wikipedia, the free encyclopedia

Typography is the art and technique of arranging type, type design, and modifying type glyphs. Type glyphs are created and modified using a variety of illustration techniques. The arrangement of type involves the selection of typefaces, point size, line length, leading (line spacing), adjusting the spaces between groups of letters (tracking) and adjusting the space between pairs of letters (kerning).

Arial
36 pt

Futura Medium, 14 pt

Myriad Regular, 12 pt

sition

transiti

disruption

c o m p r e s s i o n

TYPE FAMILY

Warning: Typography Crime



**Government
Accountability
Office**



**US Army Corps
of Engineers**

Headquarters



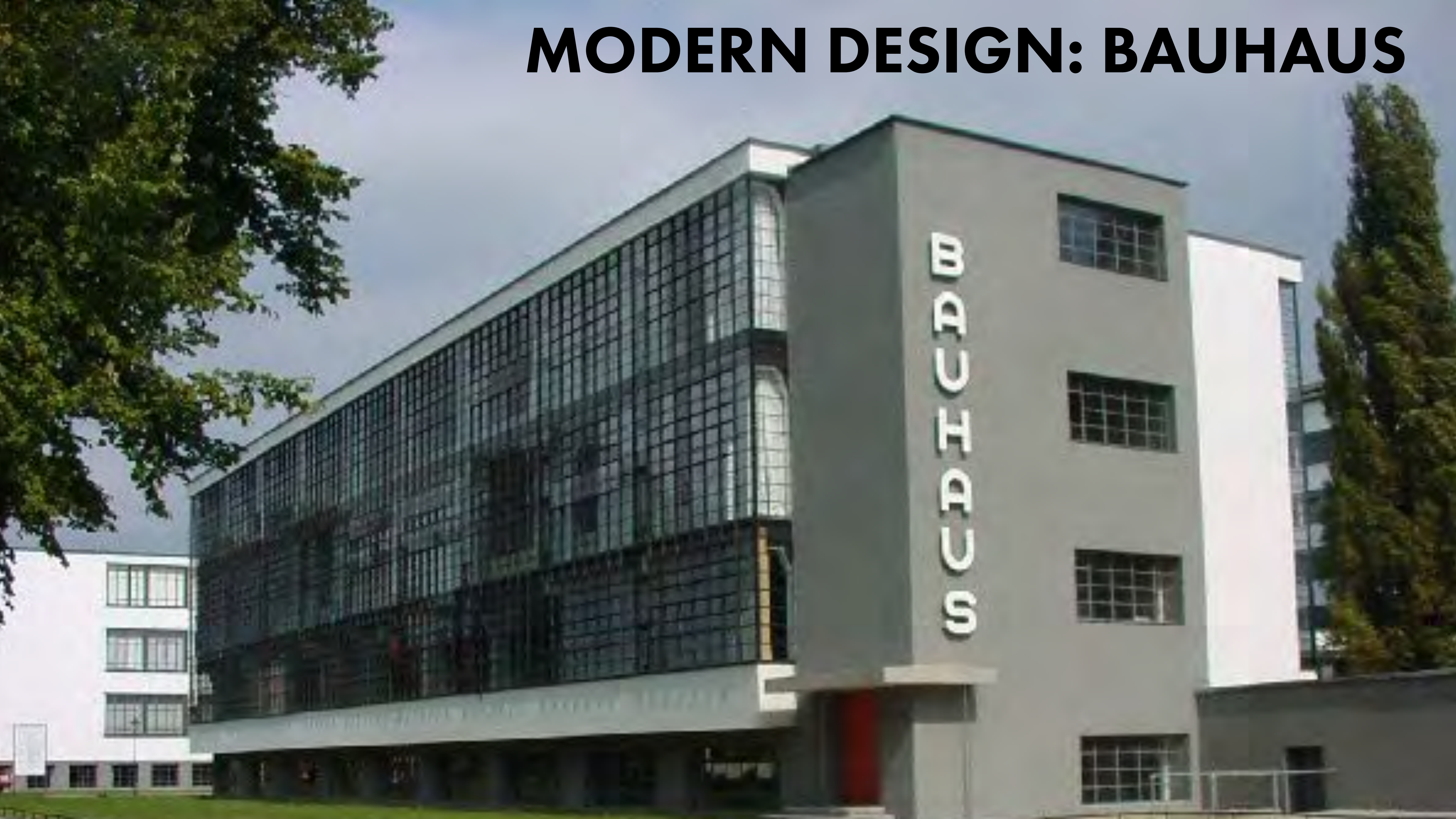
Edward Johnston, London Underground, 1916

Images from:
P. Meggs, A History of Graphic Design, Wiley 1998



GRAPHIC DESIGN HISTORY

MODERN DESIGN: BAUHAUS



BAUHAUS



JAN TSCHICHOLD



Communication in the modern age should be

OBJECTIVE

COMPELLING

SIMPLE

SHORT

FUNCTIONAL

JAN TSCHICHOLD



THE FIRST ENGLISH TRANSLATION OF THE
REVOLUTIONARY 1928 DOCUMENT

TRANSLATED FROM THE GERMAN BY RUARI McLEAN

INTRODUCTION BY ROBIN KINROSS

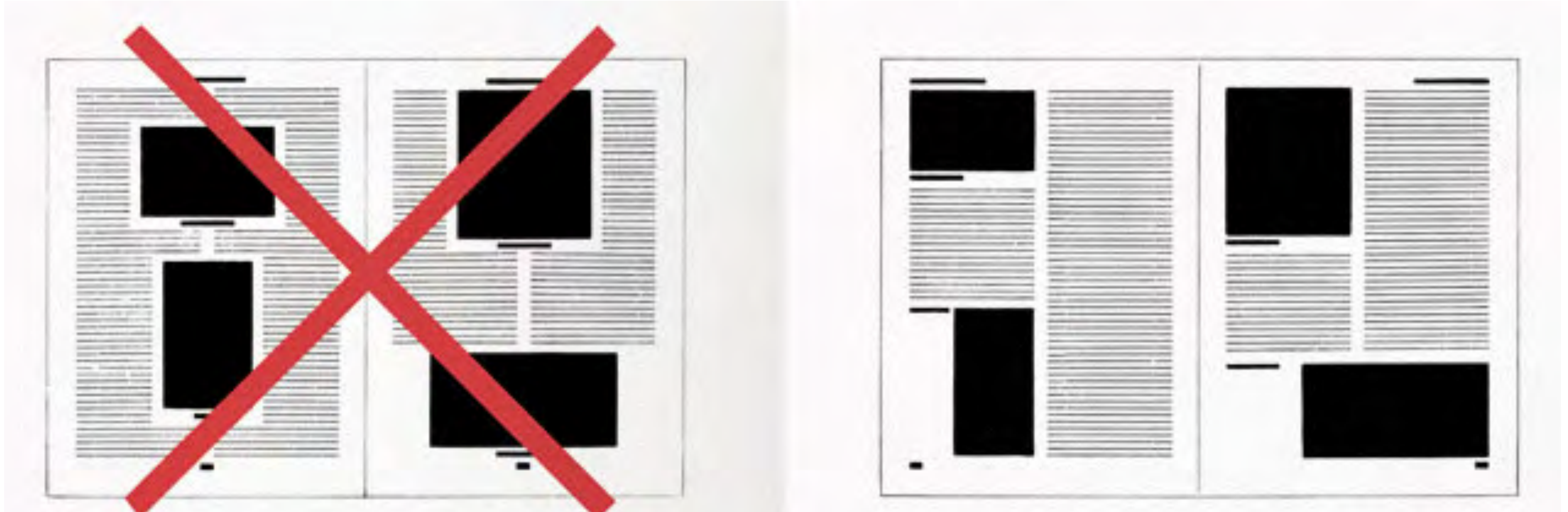
WITH A NEW FOREWORD BY RICHARD HENDEL

JAN TSCHICHOLD THE NEW TYPOGRAPHY

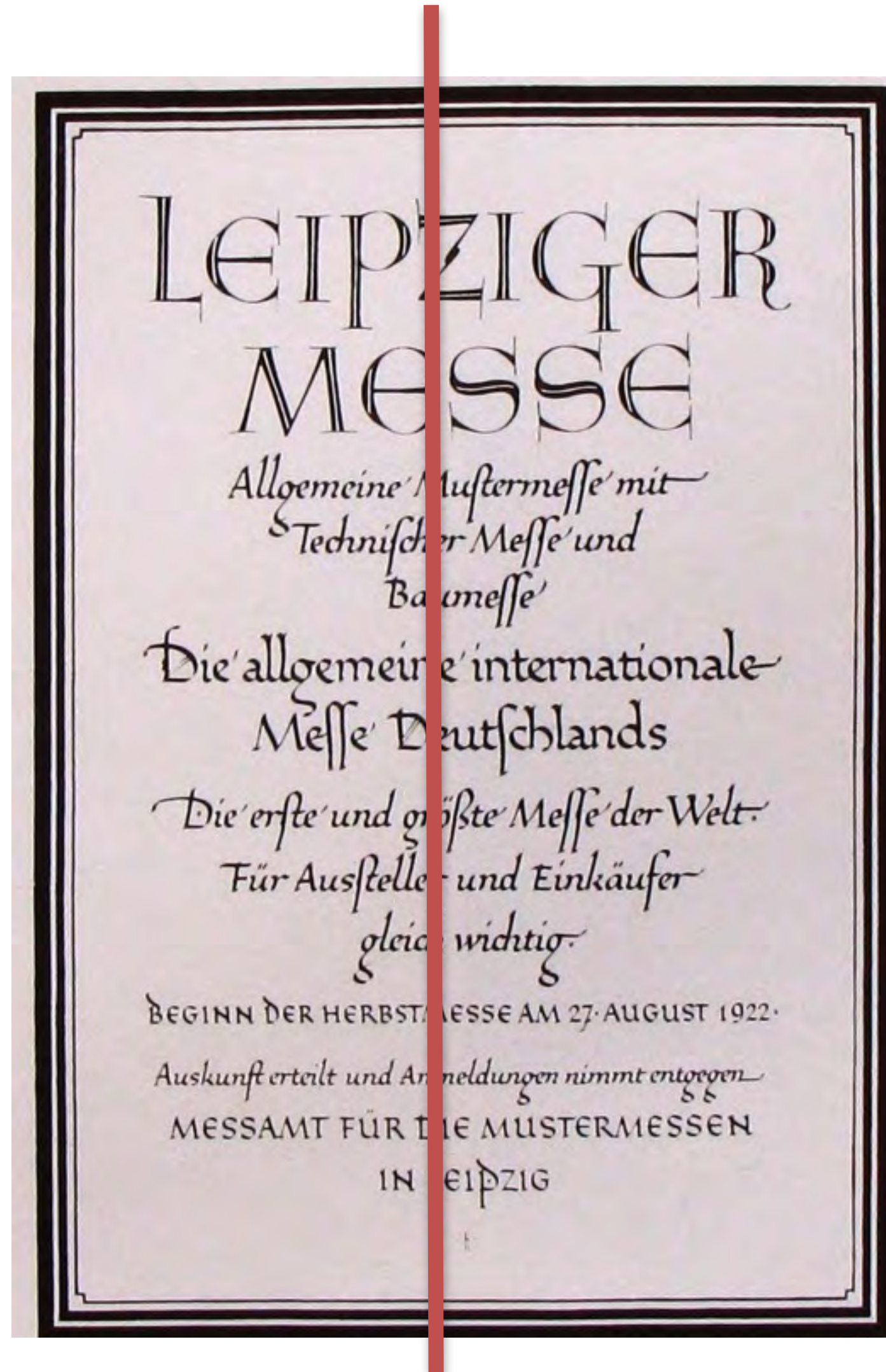
JAN TSCHICHOLD



JAN TSCHICHOLD



JAN TSCHICHOLD

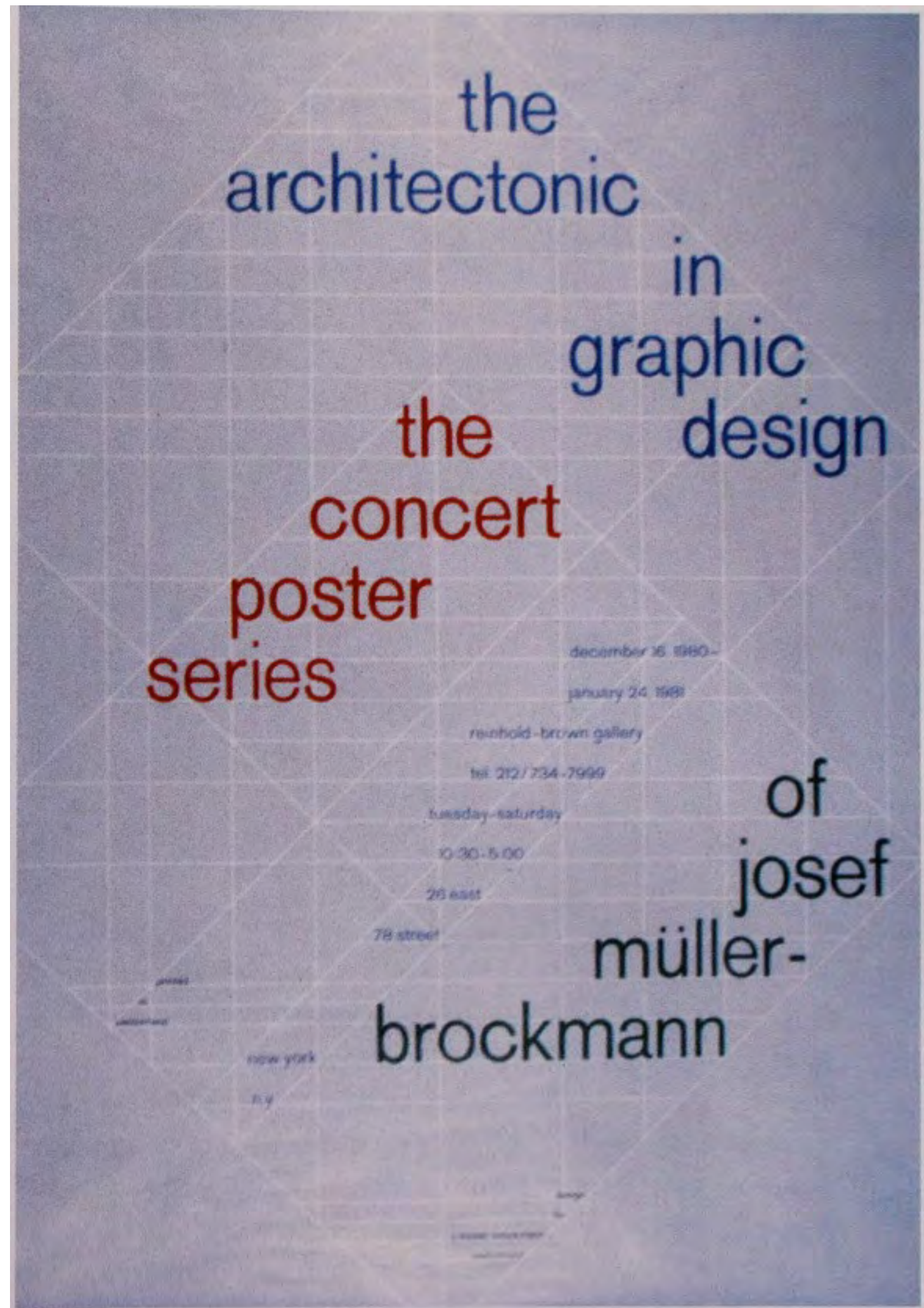


Before: Tschichold, Leipzig Trade Fair, 1922



After: Tschichold, Elemental Typogrphay, 1925

GRID-BASED DESIGN

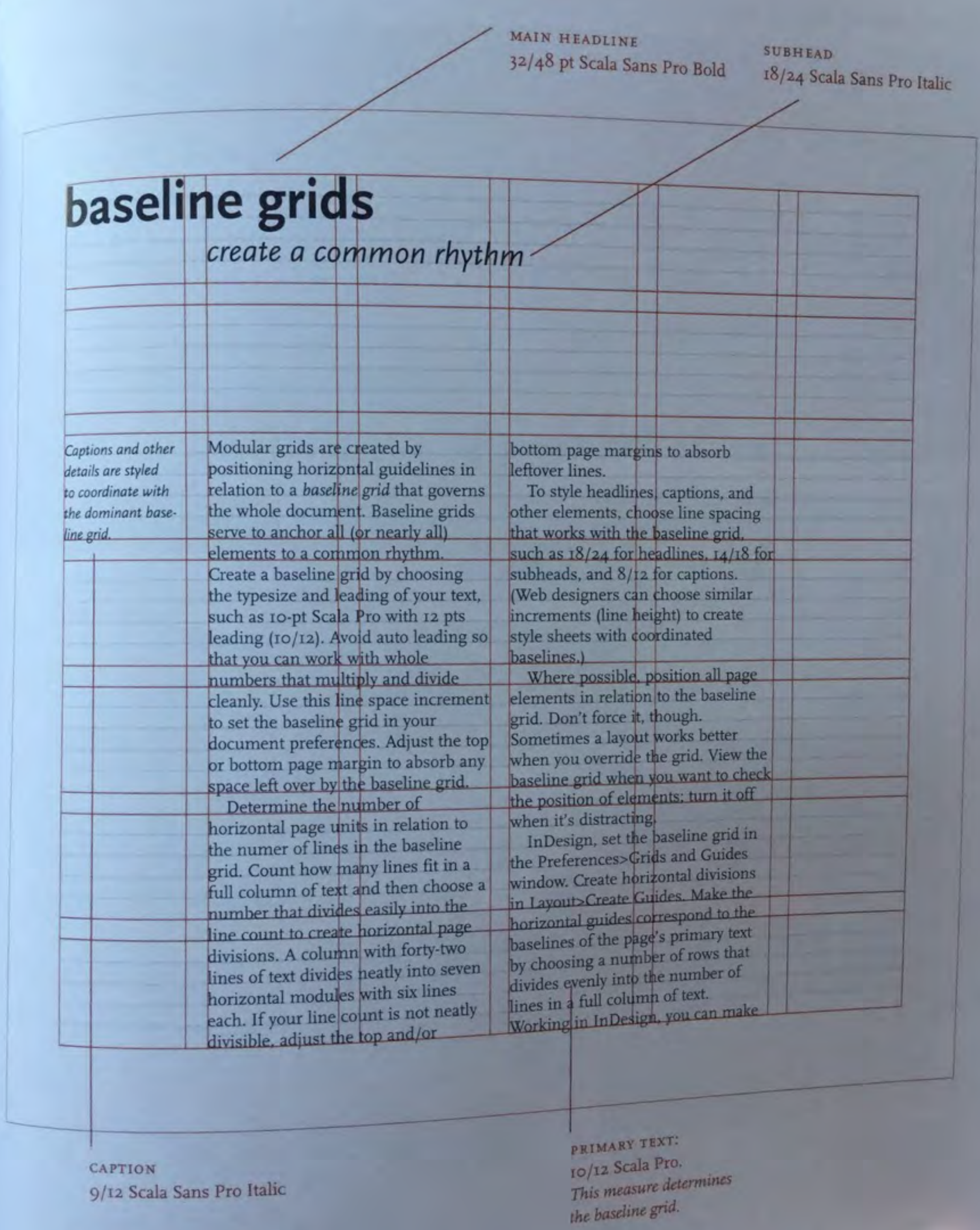


GRID-BASED DESIGN

	<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 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 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 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 build from it a new and rational social order. The grid has evolved across centuries of typographic evolution. 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. 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 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 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 build from it a new and rational social order. The grid has evolved across centuries of typographic evolution. 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. 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 content. Grids belong to the technological framework of typography, from the</p>	

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GRID-BASED DESIGN



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.				
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.				

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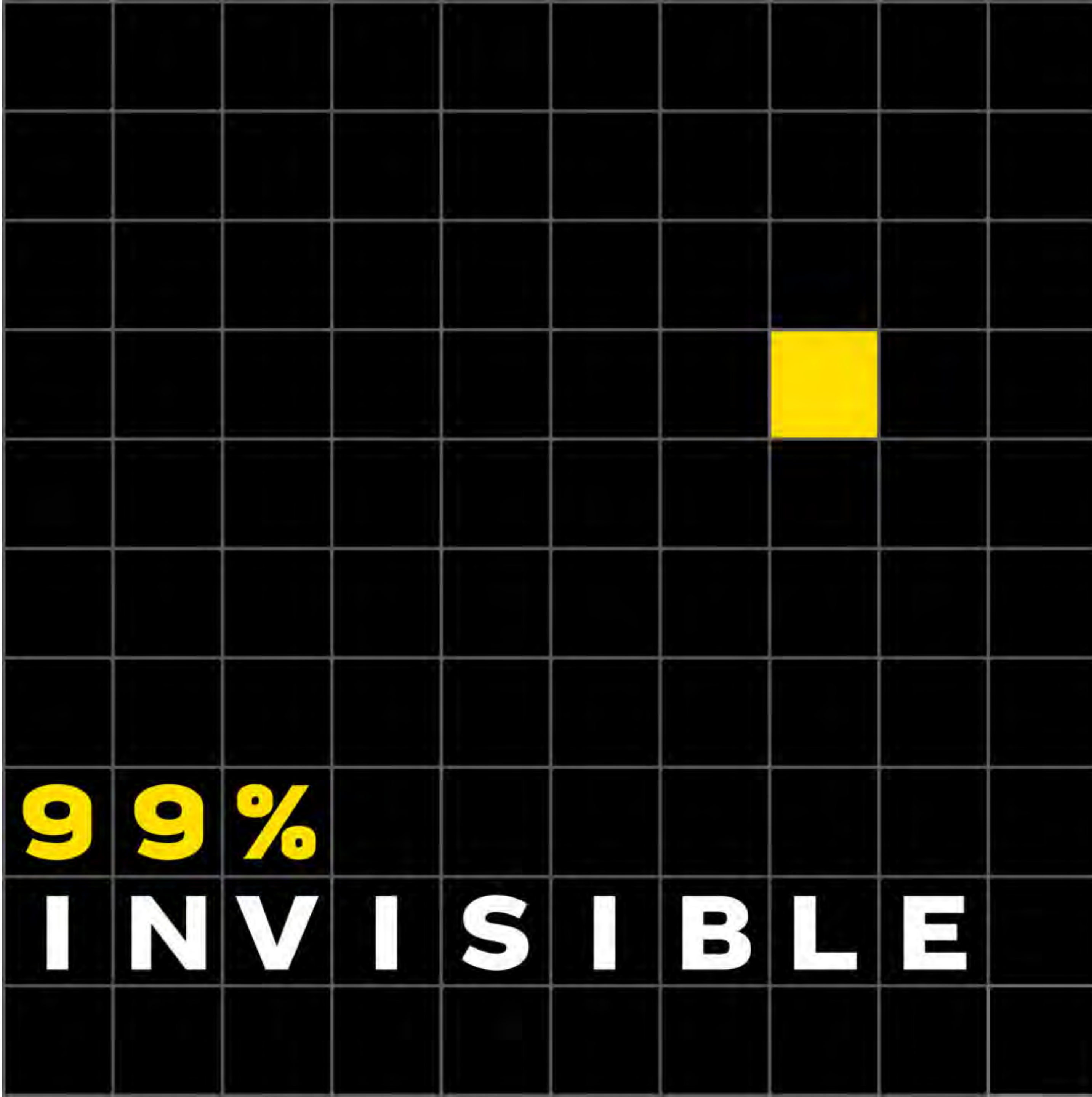
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Common typographic disorders



99percentinvisible.org

WHITESPACE



Think small.

Our little car isn't so much of a novelty any more.

A couple of dozen college kids don't try to squeeze inside it.

The guy at the gas station doesn't ask where the gas goes.

Nobody even stares at our shape.

In fact, some people who drive our little

flivver don't even think 32 miles to the gallon is going any great guns.

Or using five pints of oil instead of five quarts.

Or never needing anti-freeze.

Or rocking up 40,000 miles on a set of

tires.

That's because once you get used to

some of our economies, you don't even think about them any more.

Except when you squeeze into a small parking spot. Or renew your small insurance. Or pay a small repair bill.

Or trade in your old VW for a new one.



Think it over.



BASED ON THE CLASSIC NOVEL BY GRAHAM GREENE

BRIGHTON ROCK

STUDIO CANAL FEATUTRES BBC FILMS & UK FILM COUNCIL

present a KUDOS PICTURES production a film by ROWAN JOFFE 'BRIGHTON ROCK'

starring SAM RILEY ANDREA RISEBOROUGH ANDY SERKIS with JOHN HURT and HELEN MIRREN

casting SHAHEEN BAIG hair and makeup designer IVANA PRIMORAC costume designer JULIAN DAY

music supervisor IAN NEIL music composed by MARTIN PHIPPS production designer JAMES MERIFIELD

editor JOE WALKER director of photography JOHN MATHIESON co-producer PAUL RITCHIE

executive producers JENNY BORGARS WILL CLARKE OLIVER COURSON RON HALPERN JAMIE LAURENSEN

based on the novel by GRAHAM GREENE produced by PAUL WEBSTER written & directed by ROWAN JOFFE



STUDIO CANAL

BBC FILMS

IN CINEMAS SOON

kudos

OPTIMUM

WWW.BRIGHTONROCKMOVIE.COM

WHITESPACE



DIETER RAMS

Good design is...



innovative



**makes a product
useful**



aesthetic



**makes a product
understandable**



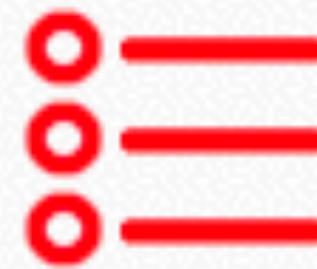
unobtrusive



honest



long-lasting



thorough



**environmentally
friendly**



**as little design
as possible**

Good design is innovative

The possibilities for innovation are not, by any means, exhausted. Technological development is always offering new opportunities for innovative design. But innovative design always develops in tandem with innovative technology, and can never be an end in itself.



TP 1
radio/phono
combination,
1959, by
Dieter Rams
for Braun



MPZ 21
multipress
citrus juicer,
1972, by
Dieter Rams
and Jürgen
Greubel for
Braun

Good design makes a product useful

A product is bought to be used. It has to satisfy certain criteria, not only functional, but also psychological and aesthetic. Good design emphasizes the usefulness of a product whilst disregarding anything that could possibly detract from it.

Good design is aesthetic

The aesthetic quality of a product is integral to its usefulness because products we use every day affect our person and our well-being. But only well-executed objects can be beautiful.



RT 20
tischsuper
radio, 1961,
by Dieter
Rams for
Braun



T 1000 world
receiver,
1963, by
Dieter Rams
for Braun

Good design makes a product understandable

It clarifies the product's structure.
Better still, it can make the product
talk. At best, it is self-explanatory.



Cylindric T 2
lighter, 1968,
by Dieter
Rams for
Braun

Good design is unobtrusive

Products fulfilling a purpose are like tools. They are neither decorative objects nor works of art. Their design should therefore be both neutral and restrained, to leave room for the user's self-expression.

Good design is honest

It does not make a product more innovative, powerful or valuable than it really is. It does not attempt to manipulate the consumer with promises that cannot be kept.



L 450 flat
loudspeaker,
TG 60 reel-to-
reel tape
recorder and
TS 45 control
unit, 1962-64,
by Dieter
Rams for
Braun



620 Chair
Program,
1962, by
Dieter Rams
for Vitsoe

Good design is long-lasting

It avoids being fashionable and therefore never appears antiquated. Unlike fashionable design, it lasts many years – even in today's throwaway society.



ET 66
calculator,
1987, by
Dietrich Lubs
for Braun

Good design is thorough down to the last detail

Nothing must be arbitrary or left to chance. Care and accuracy in the design process show respect towards the user.



606 Universal
Shelving
System, 1960,
by Dieter
Rams for
Vitsoe

Good design is environmentally-friendly

Design makes an important contribution to the preservation of the environment. It conserves resources and minimizes physical and visual pollution throughout the lifecycle of the product.



L 2 speaker,
1958, by
Dieter Rams
for Braun

Good design is as little design as possible

Less, but better – because it concentrates on the essential aspects, and the products are not burdened with non-essentials.

Back to purity, back to simplicity.

PRODUCT DESIGN IS ABOUT FORM AND FUNCTION

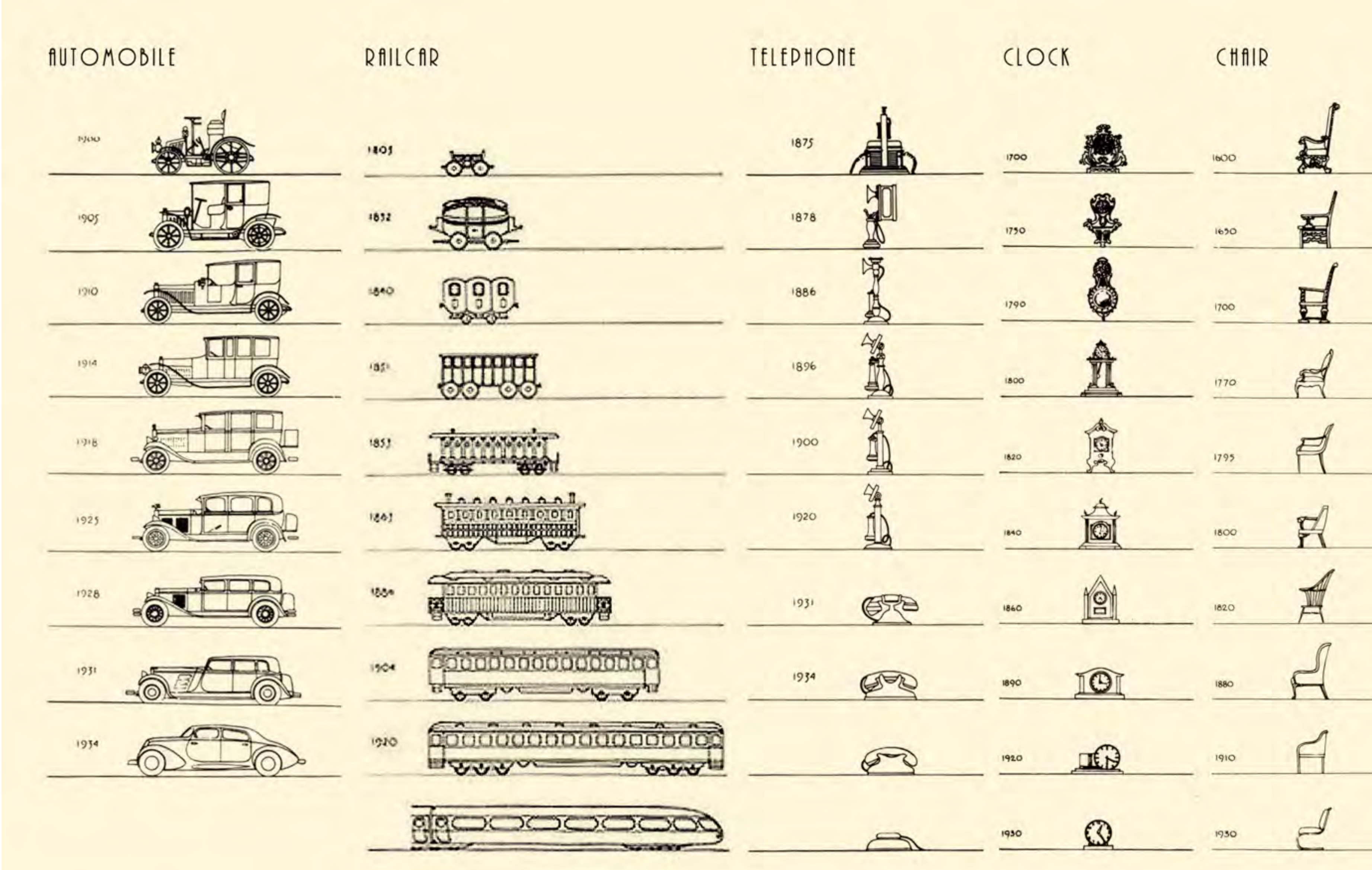


Philippe Starck, Juicer for Alessi



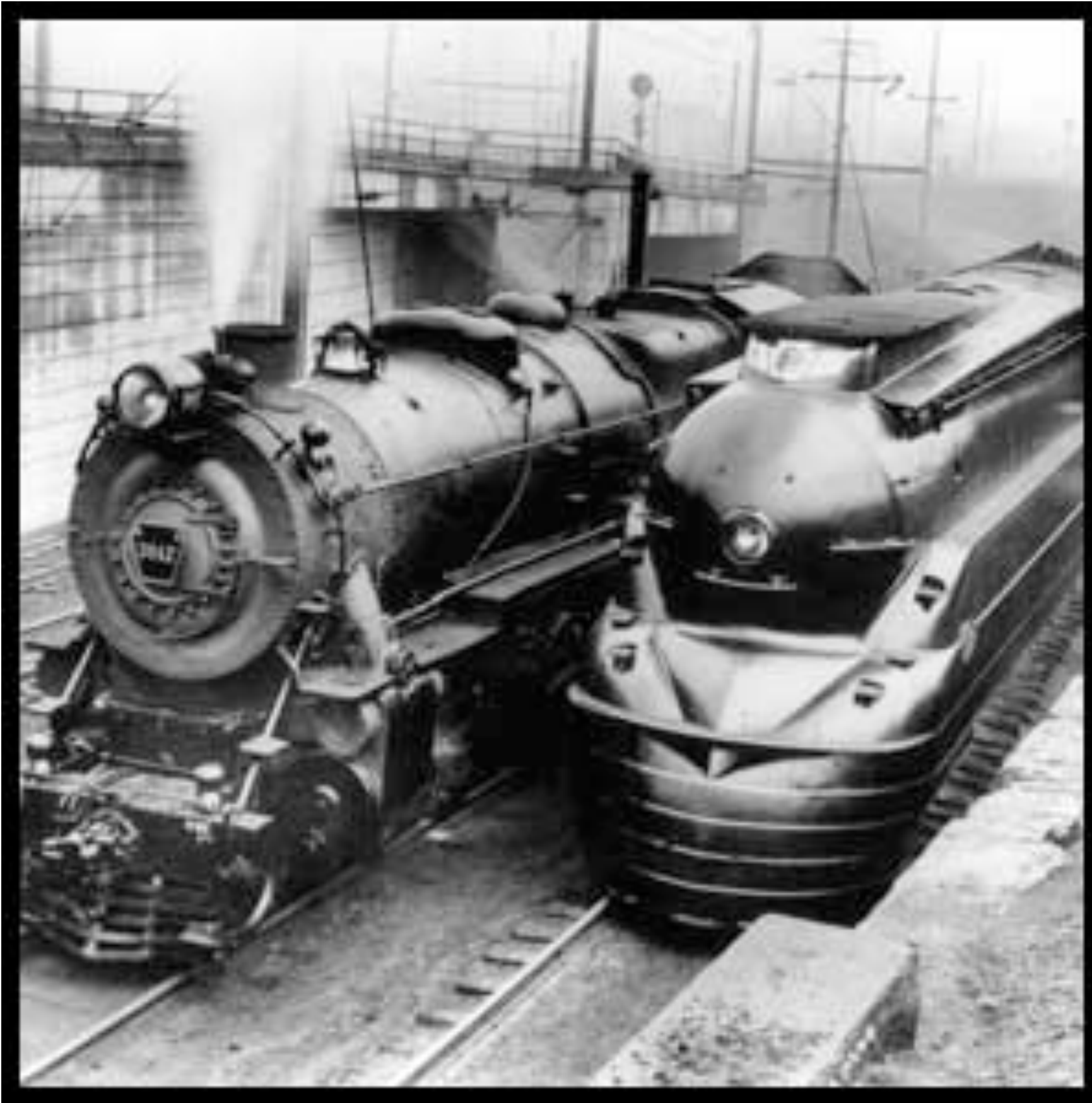
Oxo Angled Measuring Cup

STREAMLINING



Raymond Loewy, from: hyperakt.com

STREAMLINING

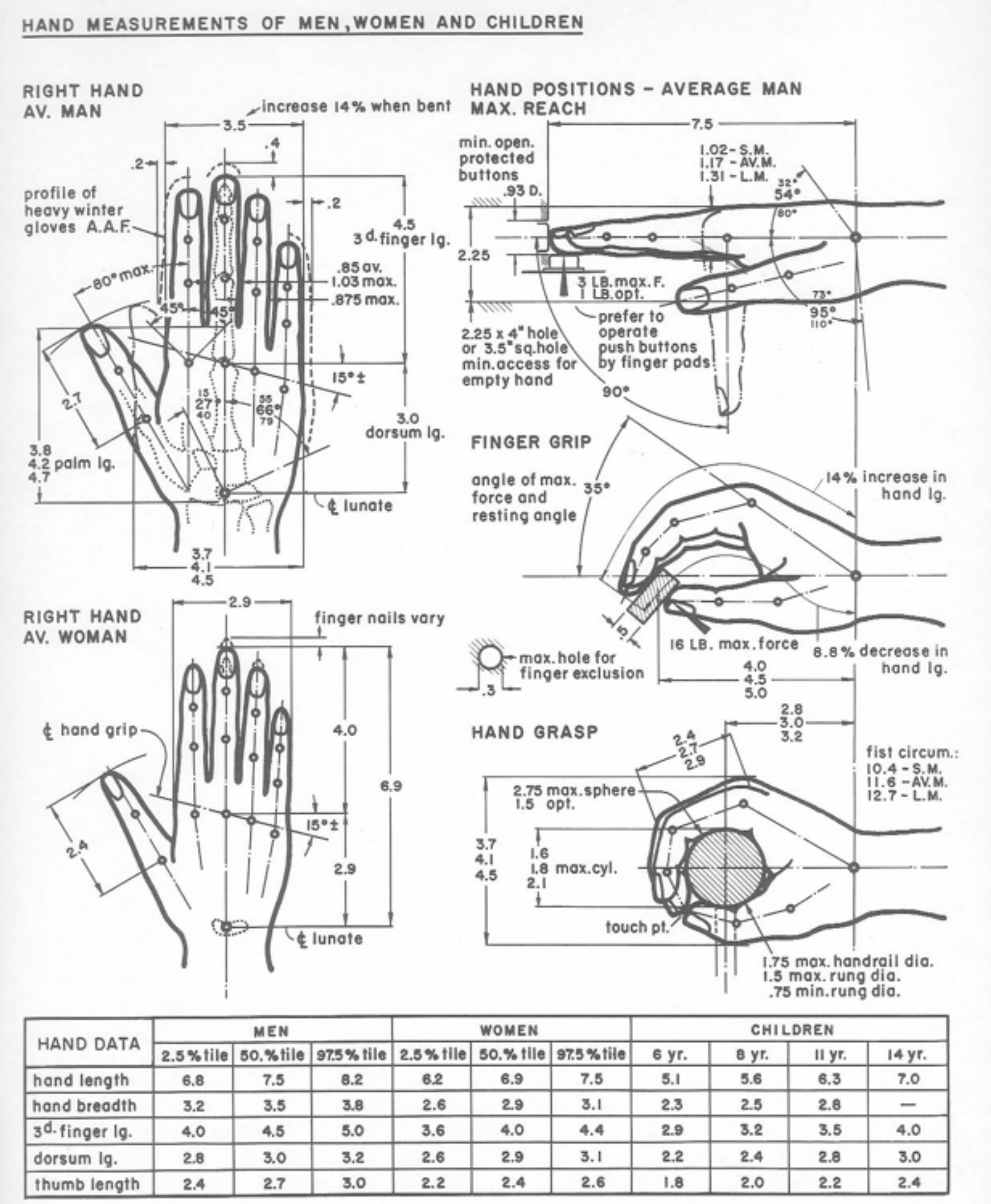
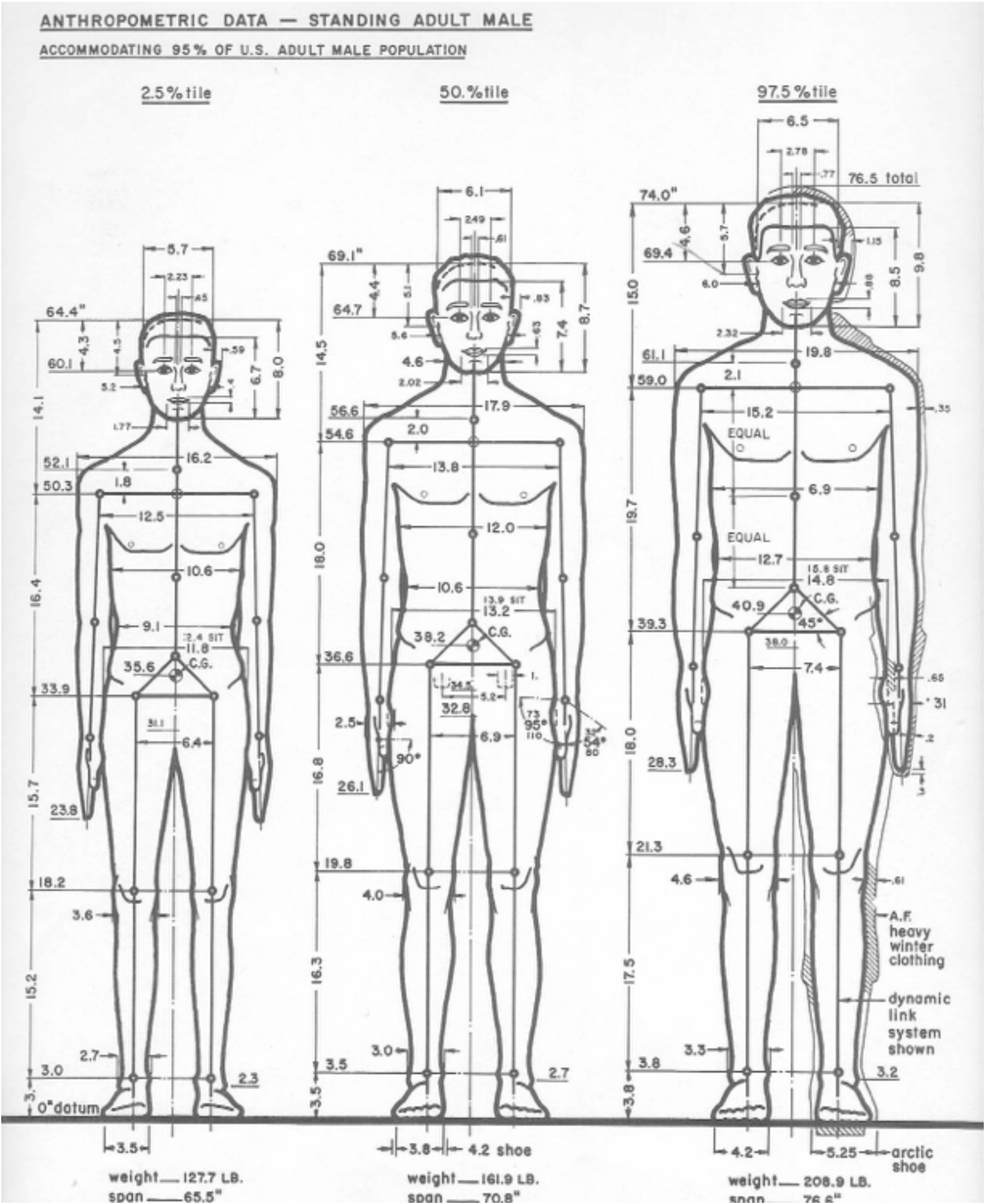


Pennsylvania Railroad S1, 1939 (Wikipedia)

STREAMLINING GONE TOO FAR...?



HENRY DREYFUSS: HUMAN FACTORS



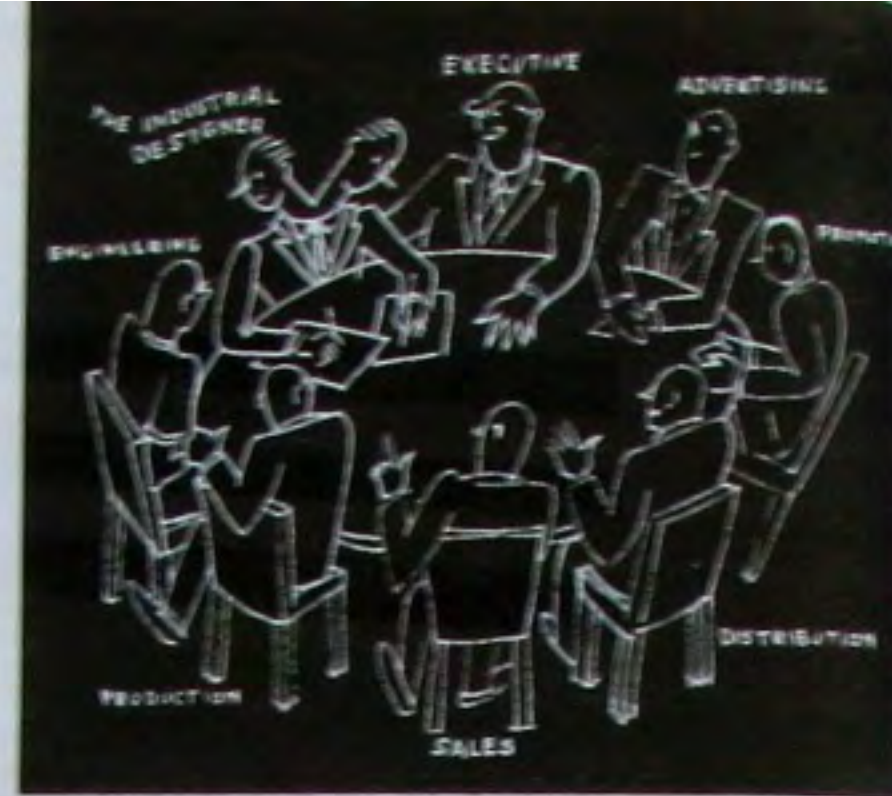
DREYFUSS: MODEL 500 PHONE



DREYFUSS: PROCESS



1. When the industrial designer is summoned by a potential client he must first conscientiously determine that he can make a positive contribution to the product. If, after study and consultation, it is found that he can, the following sequence of events is set in motion.



2. A meeting is held with the executive group, composed of department heads, to learn their objectives in terms of time, cost, techniques, and distribution. Only in this way can the industrial designer be sure that his ideas jibe with the practical facts of business life.



3. A thorough study is made of the market. The industrial designer assembles photographs of competitive lines. Often rival products are purchased and operated. Although the client, naturally, is cognizant of his competition, the designer sees it through different eyes.



4. Time is allocated to the study of factory methods and production facilities. This insures the industrial designer's becoming acquainted with any limitations that may exist, so he won't project a product that cannot be manufactured efficiently.



5. The industrial designer enters into close co-operation with the client's engineering personnel. Their offices become as one. Together they go over countless sketches, working drawings, and blueprints. Three-dimensional models are developed in clay, plaster, wood, or plastic.



6. The final model—a working one, if possible—is presented to the entire client group by the industrial designer and the client engineers. The presentation is designed to show management what they will get, when they will get it, and what it will sell for.



7. Agreement on a final working model is a milestone, but the industrial designer's work is far from done. He continues to work with the engineers and toolmakers, making every effort to integrate changes if they will improve the product or the price picture.



8. If the product is to be packaged, the industrial designer goes to work on the container, carton, and price tags. He interests himself in these matters because they complement the product. Often they create the invaluable first impression in the mind of the customer.

the successful competitor must be a man of many hats, as is shown by

EXCESS OF FORM FOLLOWS FUNCTION?



Centre Georges Pompidou, Paris
All infrastructure (ducts, vents, stairs) on outside of building

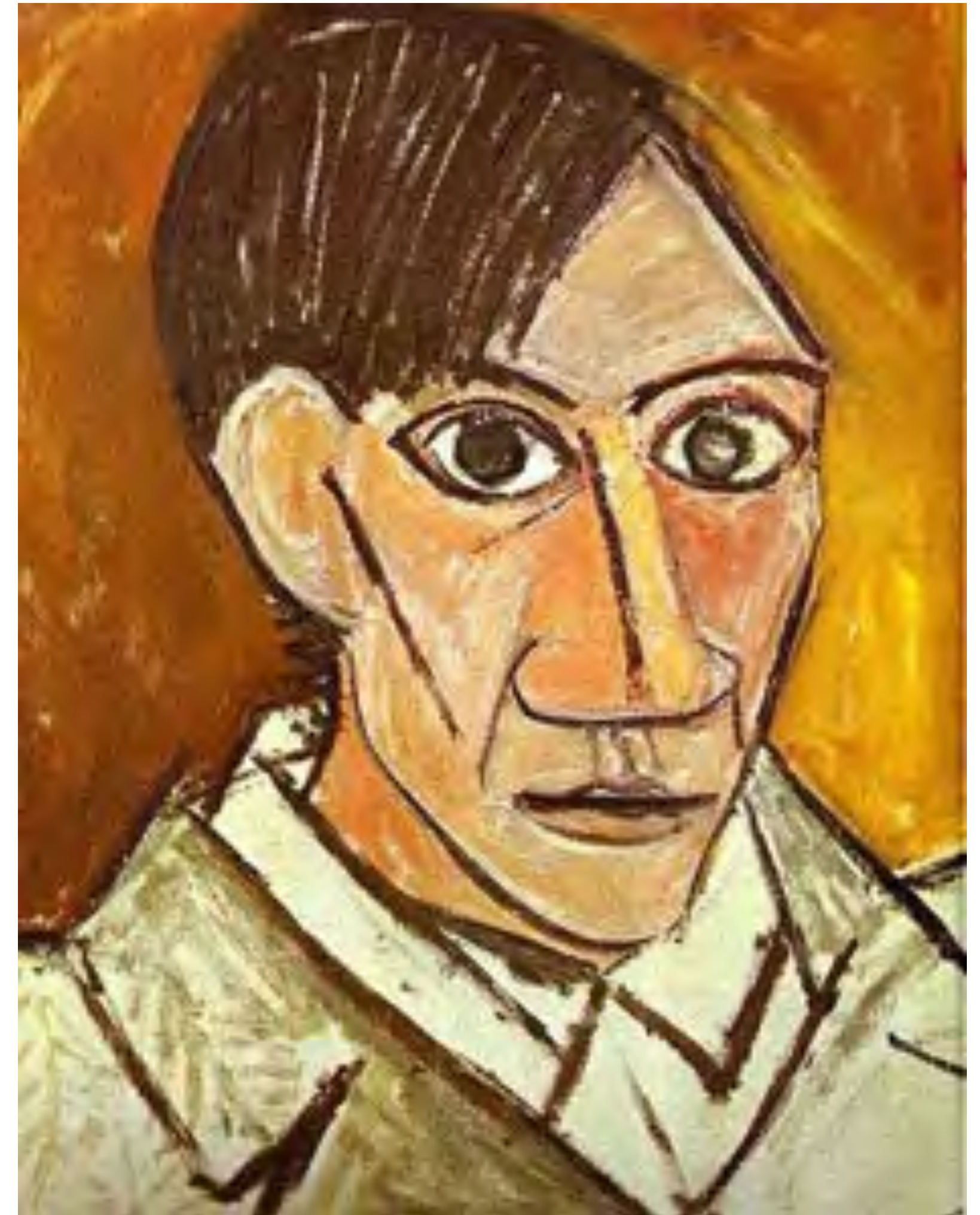


SIMPLICITY AND ELEGANCE

STEAL GOOD DESIGN IDEAS

“Good artists borrow, but great artists steal !”
- Pablo Picasso

Compelling visual design takes
practice and experience – a
natural part of which is study
and critique of other’s work



SIMPLICITY

Simple, minimalist, designs are often most effective



ELEGANCE

Reduction: Only include essential elements

Regularization: Use one set of shapes, colors, forms etc.

Leverage: Use elements in multiple roles

BENEFIT: APPROACHABILITY



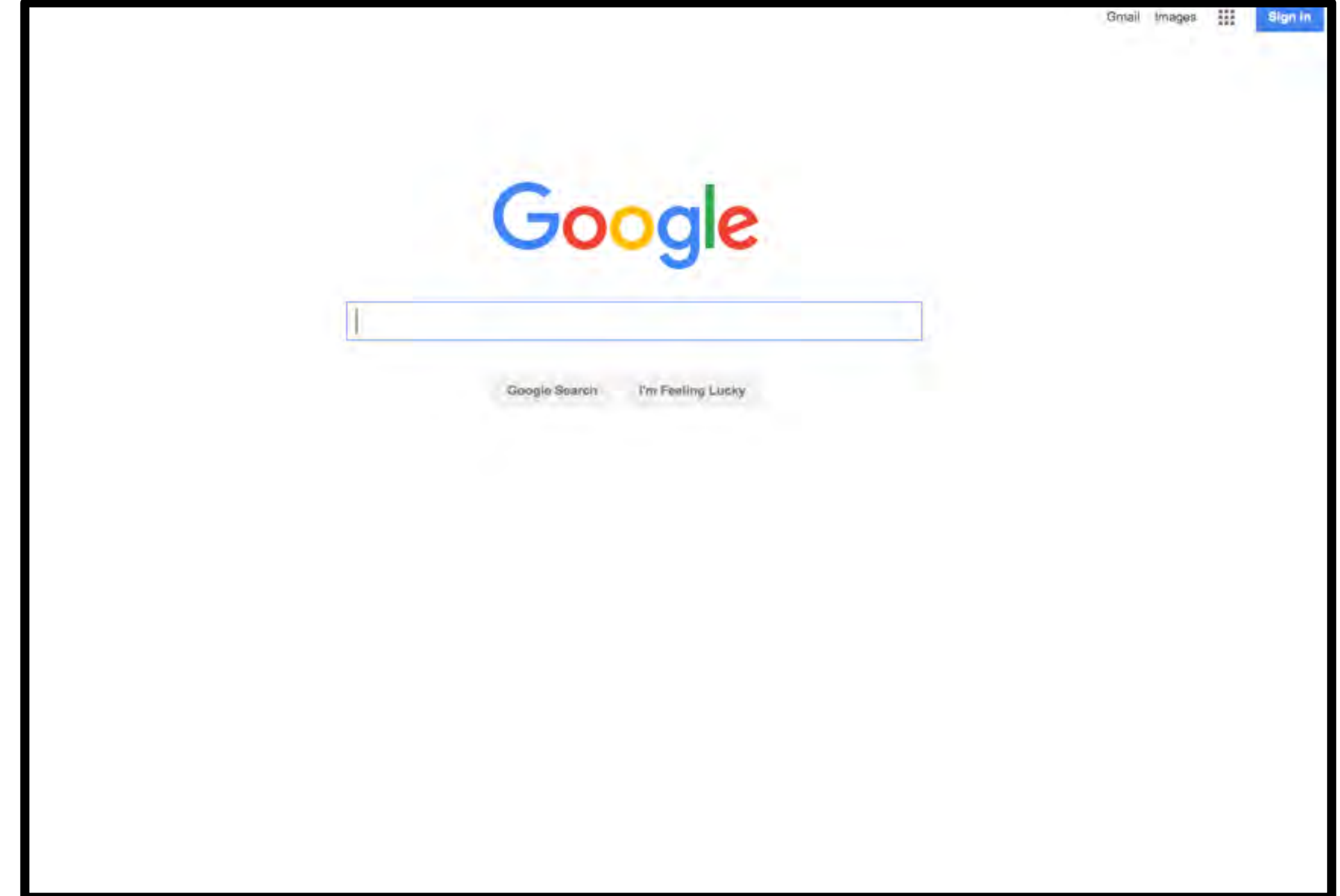
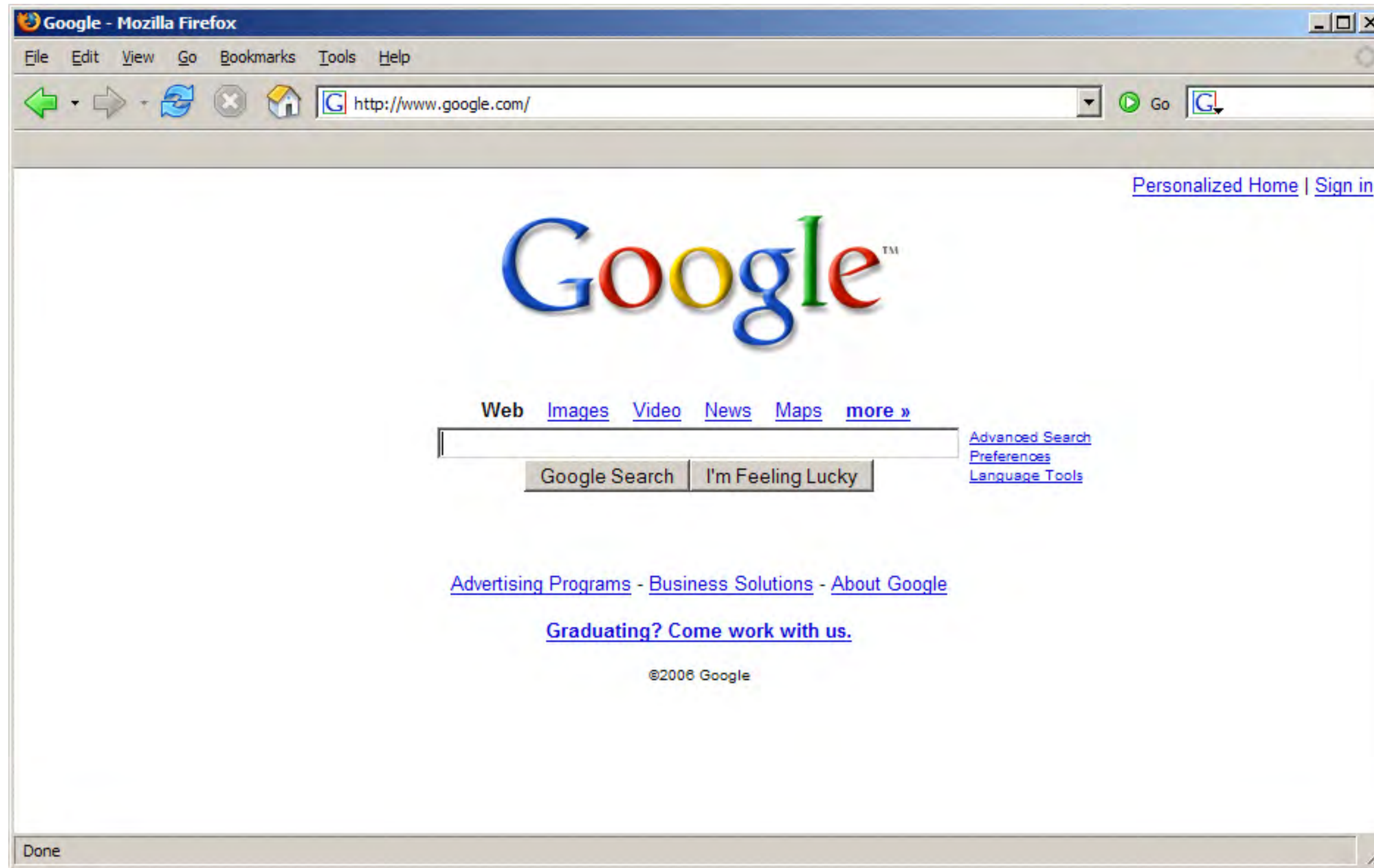
Visual elements rapidly understood - invite further exploration

BENEFIT: RECOGNIZABILITY



Less visual clutter makes it easier to recognize what is there

BENEFIT: IMMEDIACY



Eye is immediately drawn to important visual elements

Details that remain are more prominent

UNITY

One path to simplicity & elegance is through unifying themes:

Forms, colors, components with like qualities



DESIGN LANGUAGE

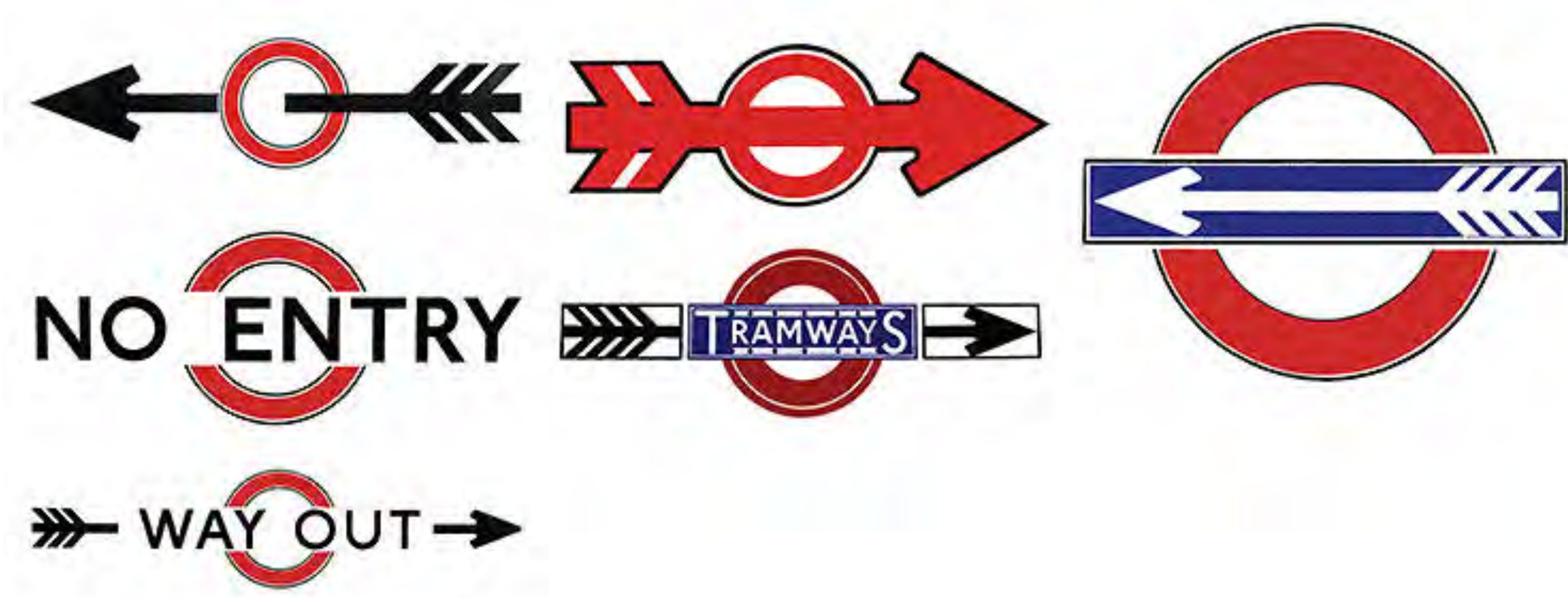
A **design language** or **design vocabulary** is an overarching scheme or style that guides the design of a complement of products or architectural settings.

Designers wishing to give their suite of products a unique but consistent look and feel define a design language for it, which can describe choices for design aspects such as materials, colour schemes, shapes, patterns, textures, or layouts.

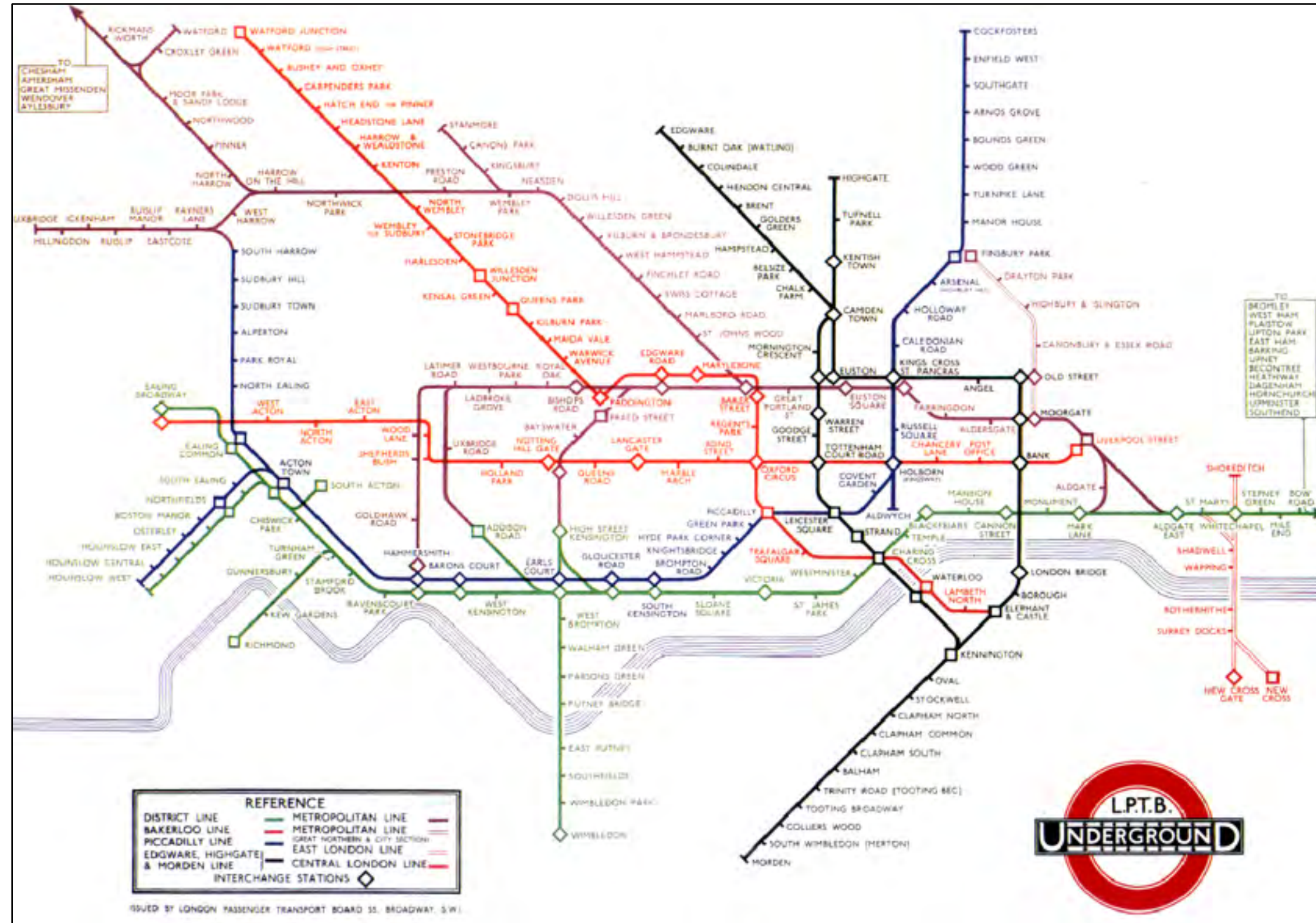
They then follow the scheme in the design of each object in the suite.



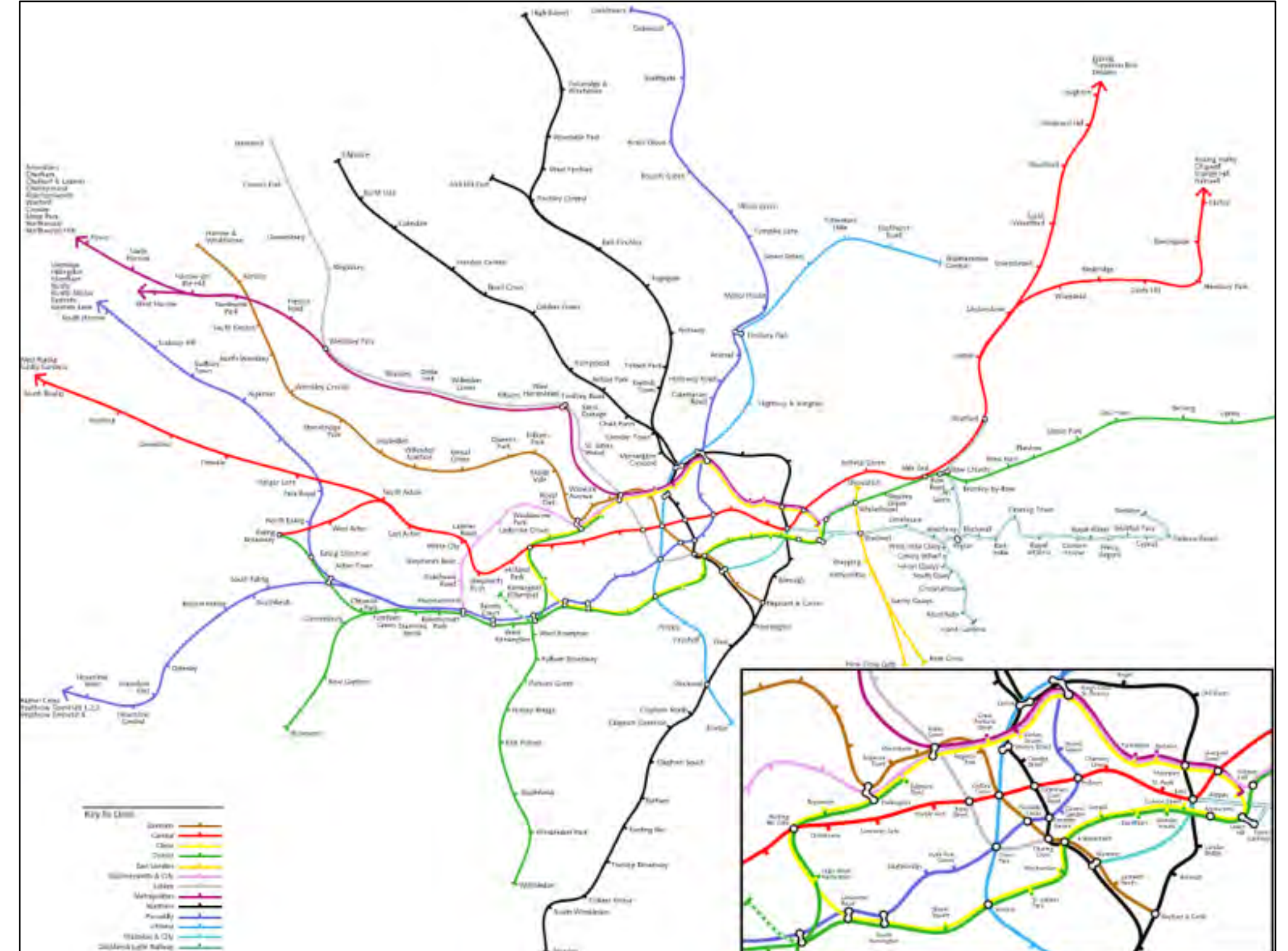
DESIGN LANGUAGE



REFINEMENT



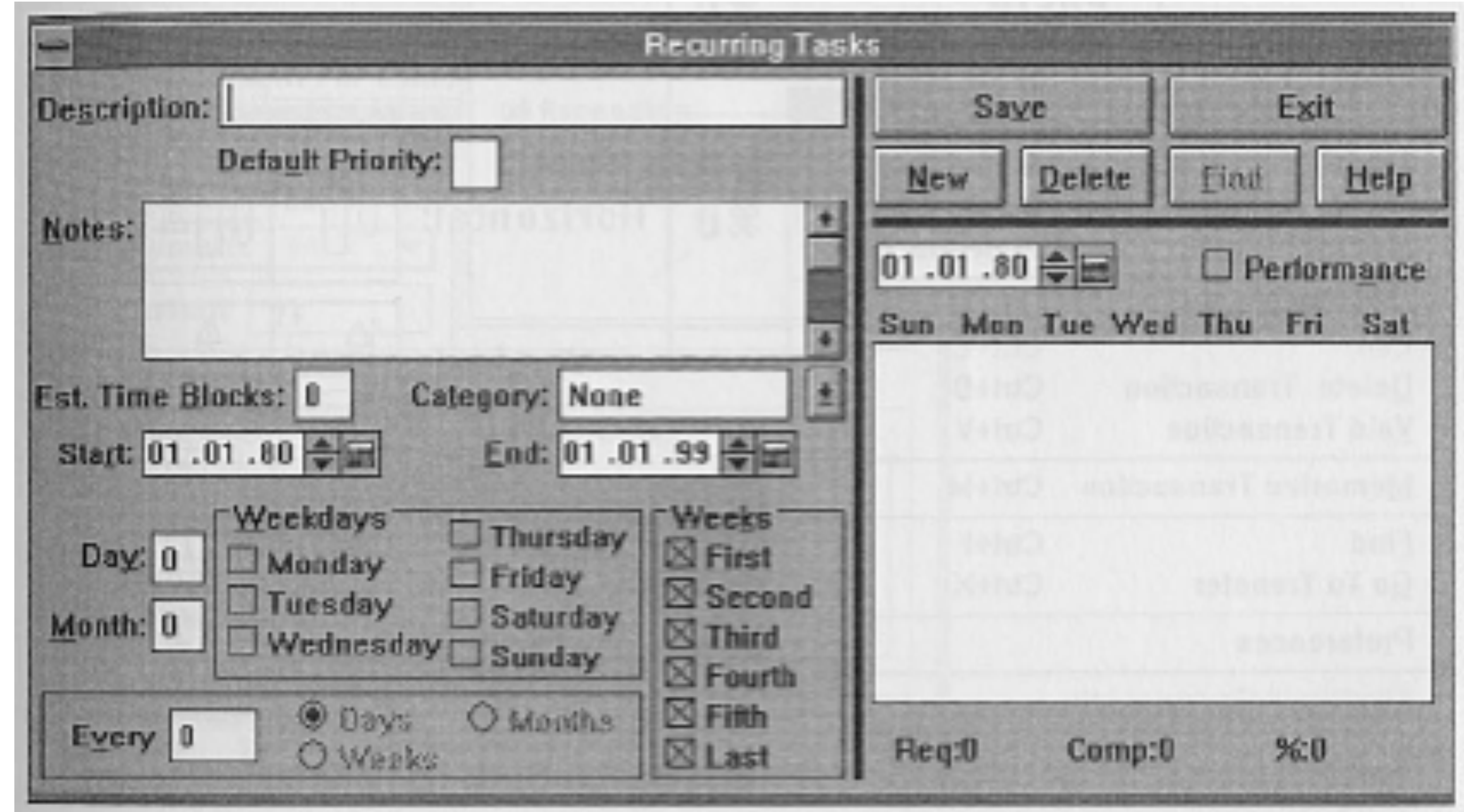
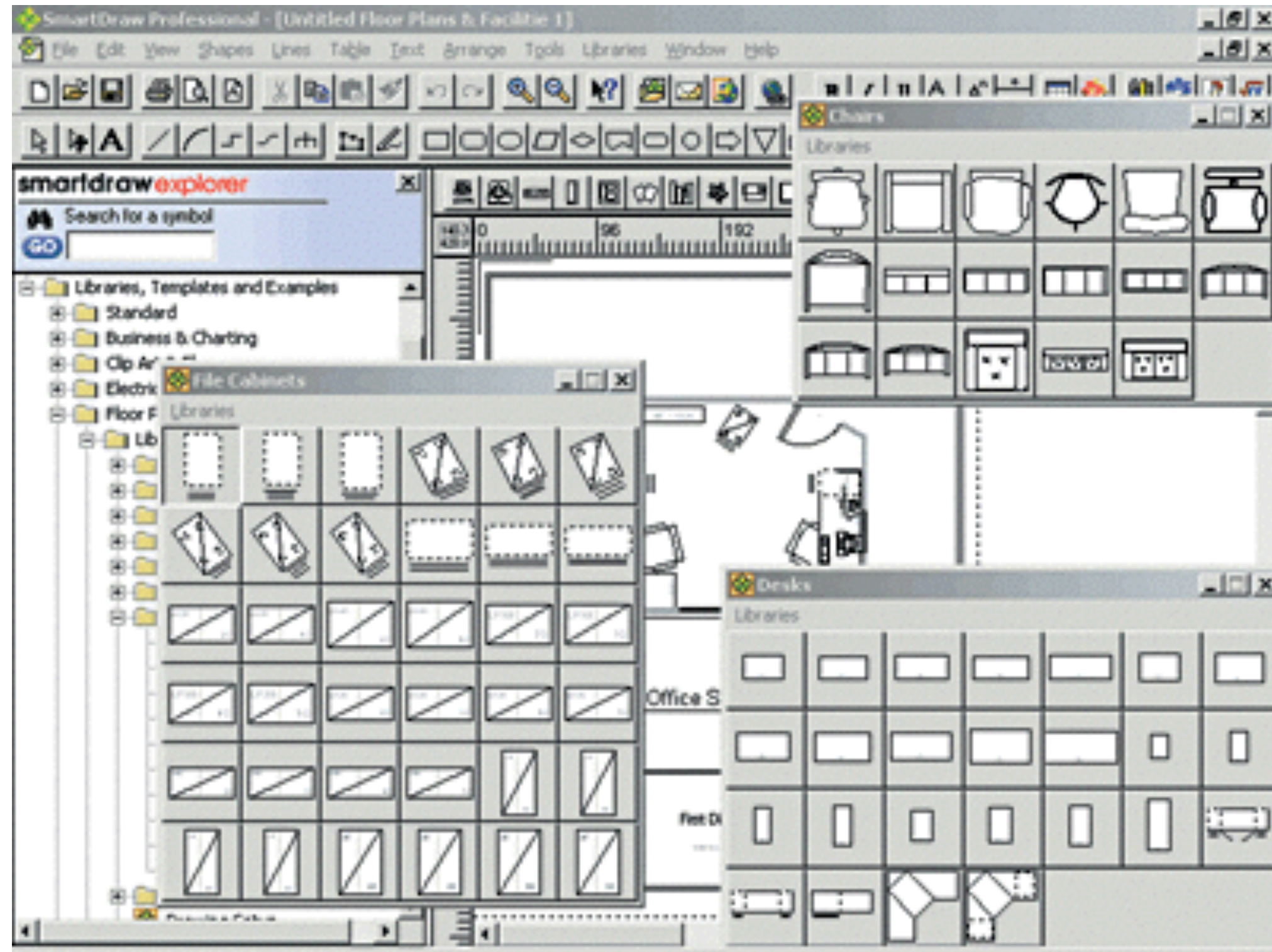
London Underground [Beck 33]



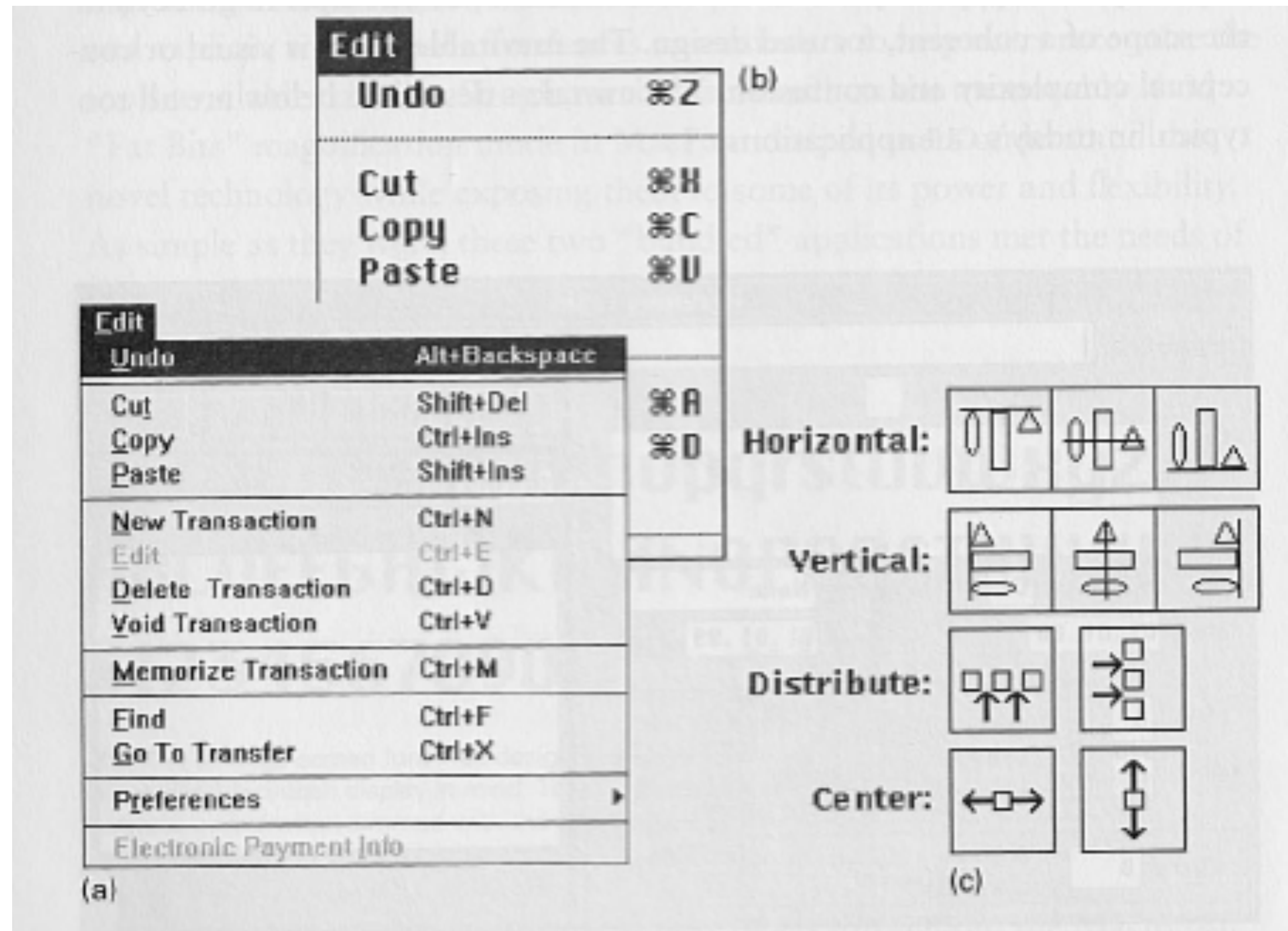
Geographic version of map

Draw viewers' attention to essential information
Straighten subway lines to emphasize sequence of stops

MISTAKES: CLUTTER & NOISE



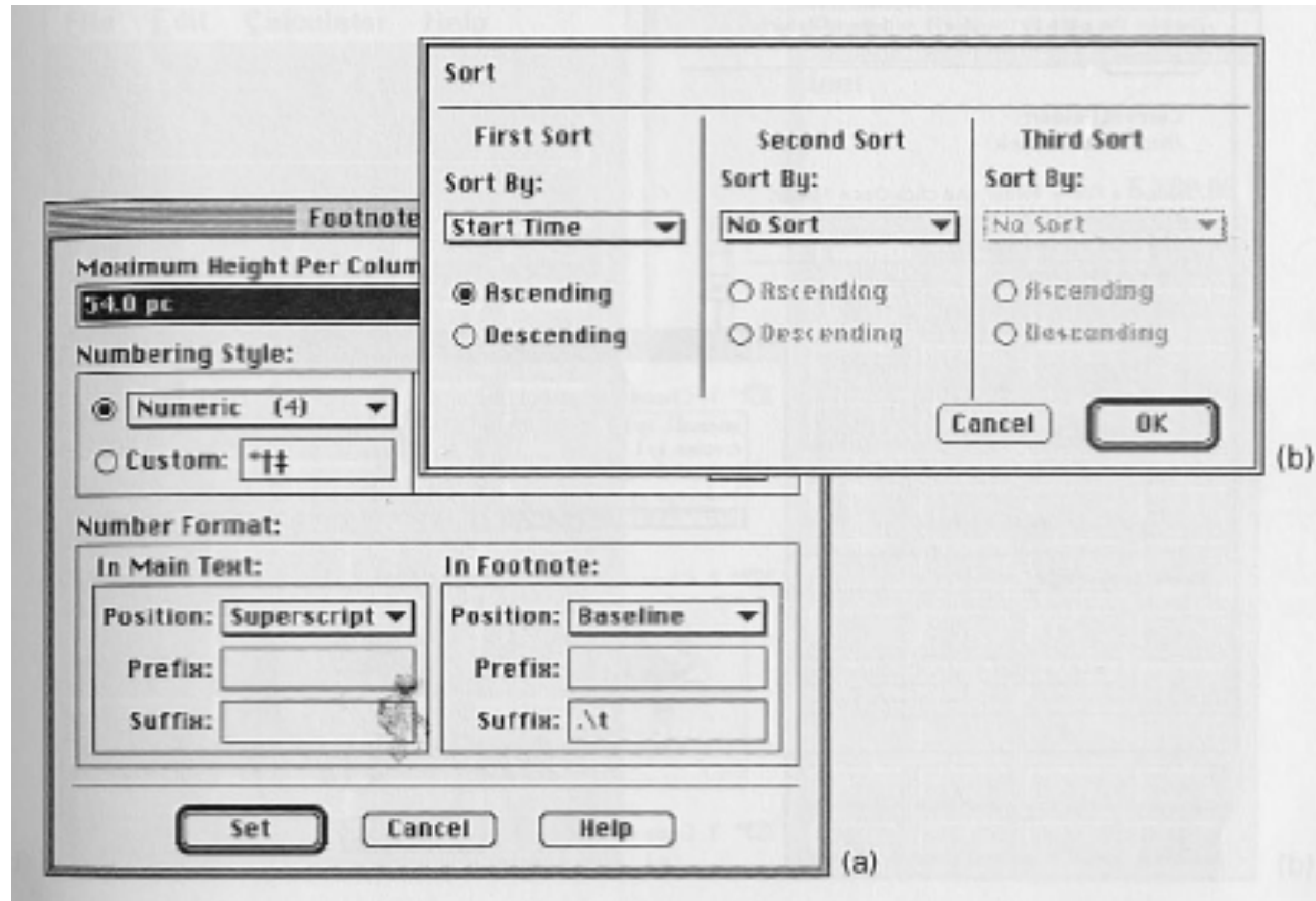
MISTAKES: INTERFERENCE



Shortcuts interfere with menu labels in (a) not in (b).

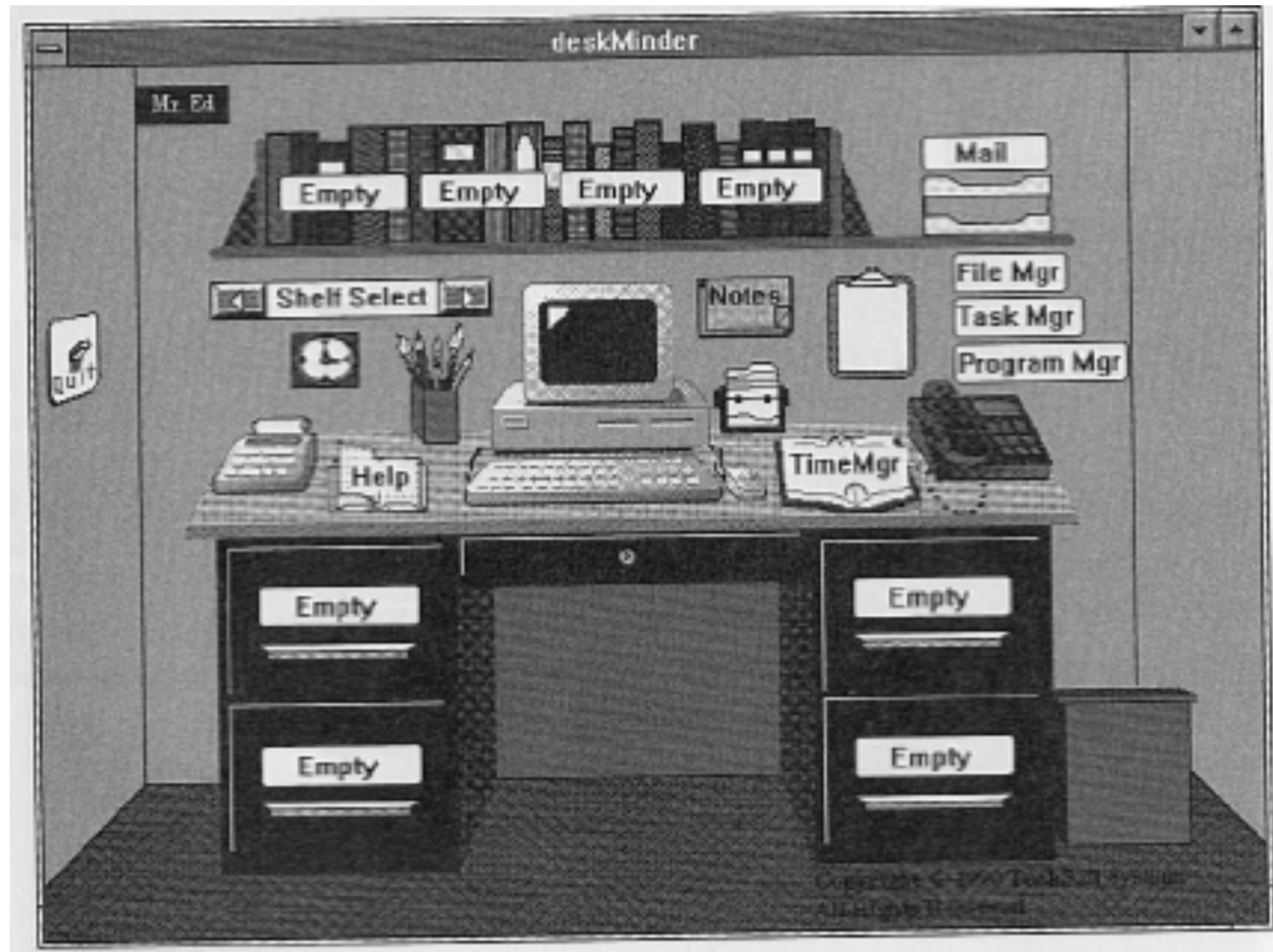
Different shapes cause confusion in alignment tools

MISTAKES: TOO MUCH STRUCTURE

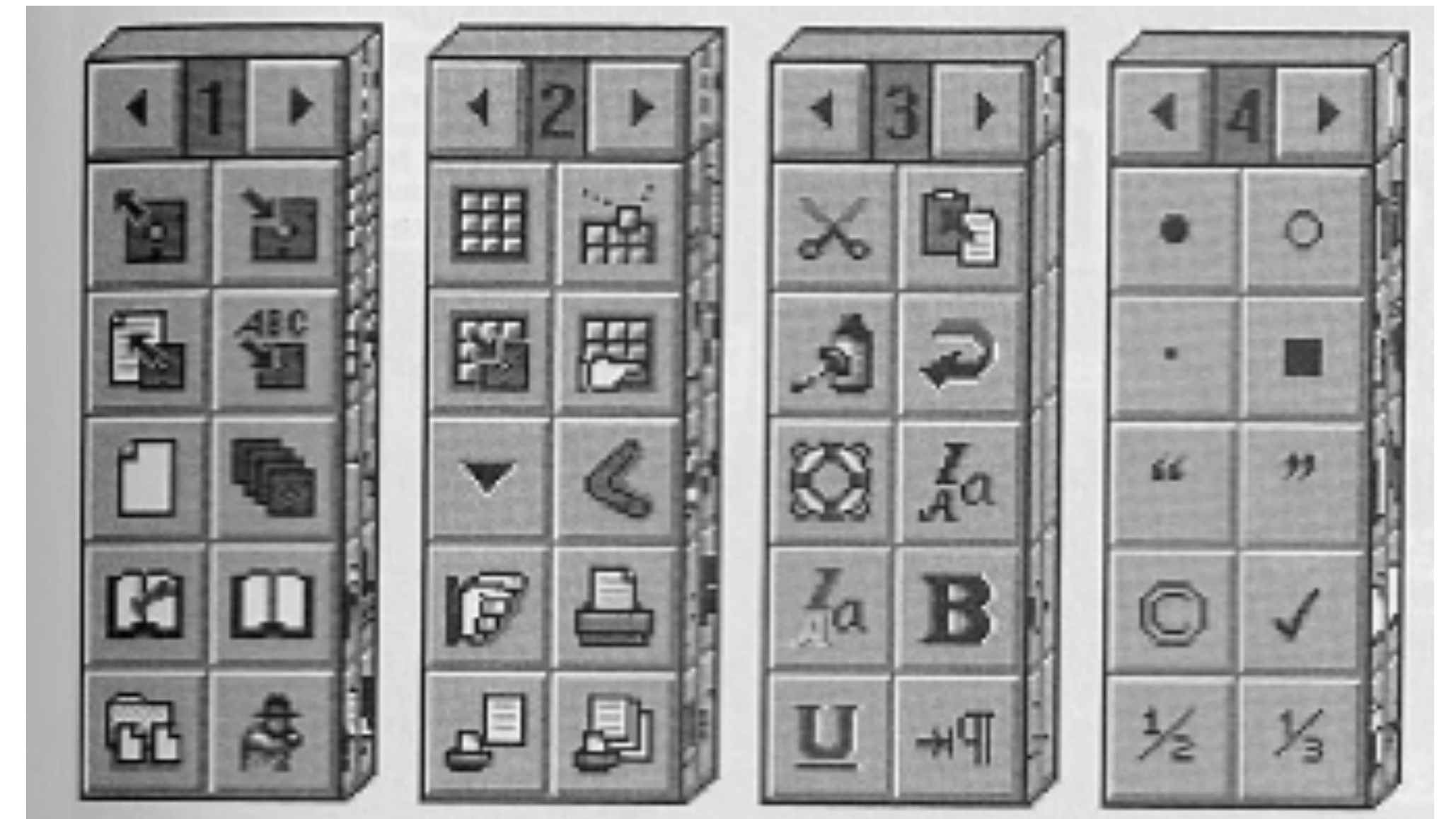
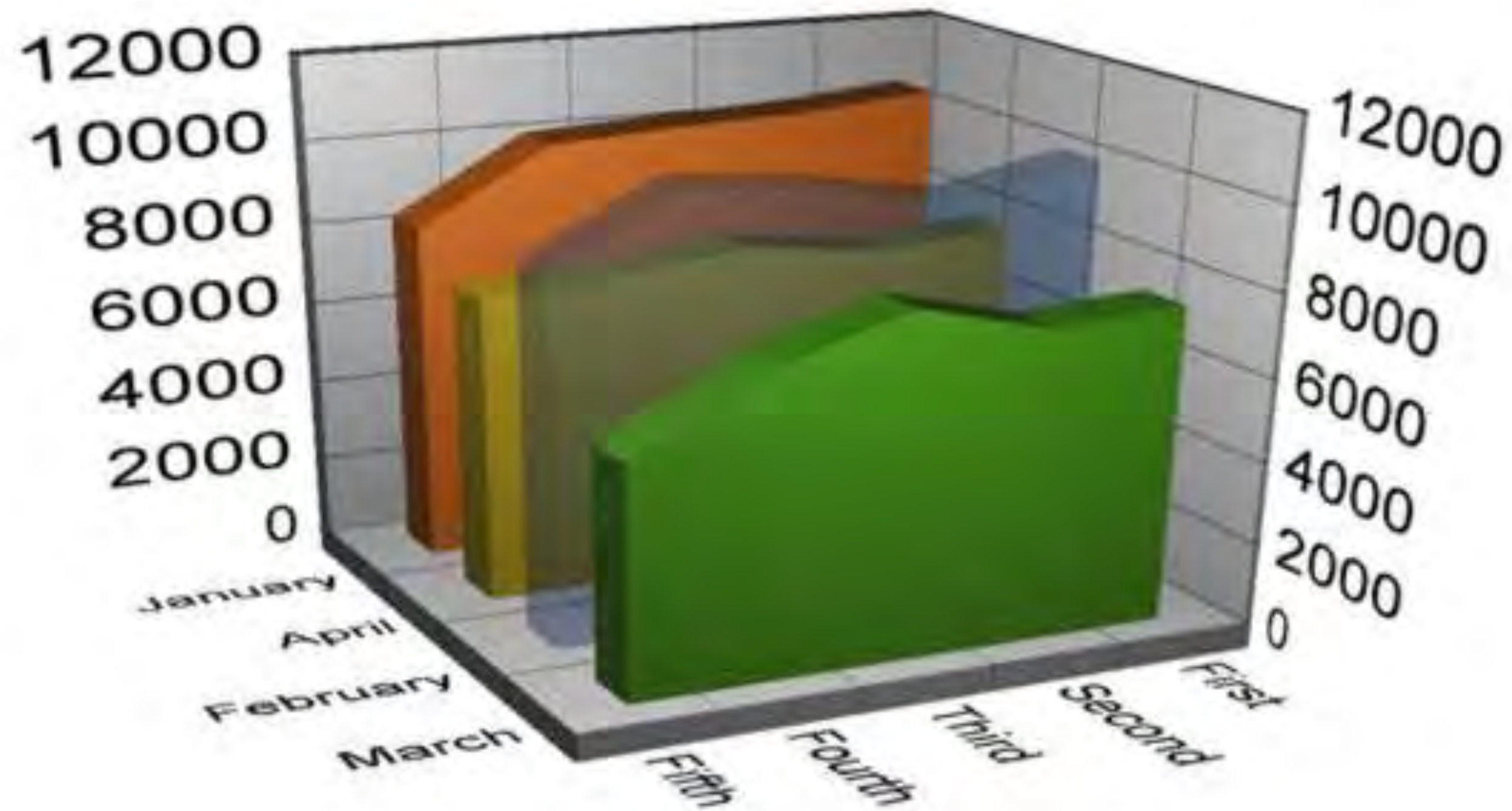


Bounding boxes in (a) adds unnecessary structural information
Simpler structure in (b) using space rather than lines is better

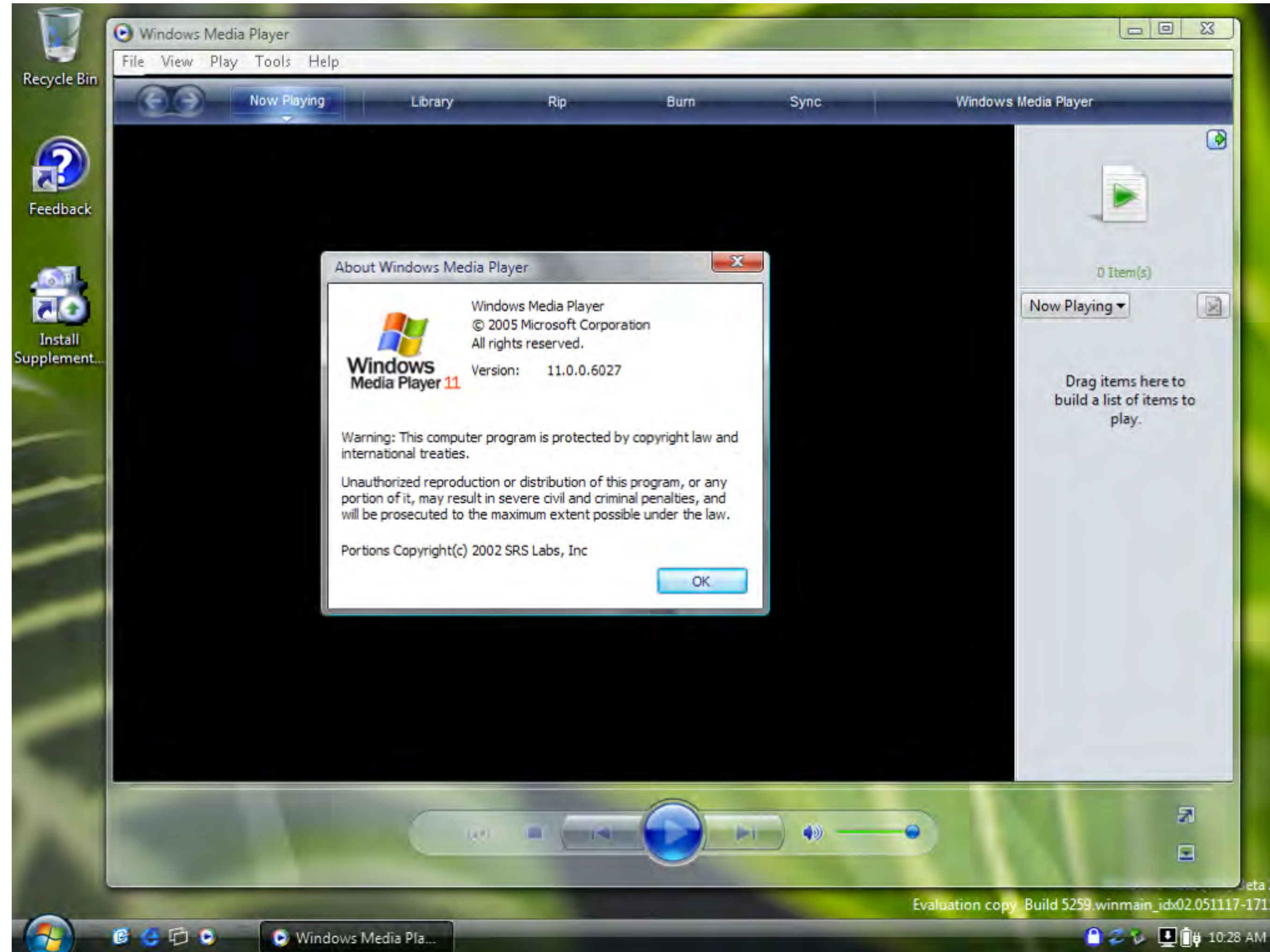
MISTAKES: BELABORING THE OBVIOUS



MISTAKES: GRATUITOUS USE OF 3D



MISTAKES: EXCESSIVE EMBELLISHMENT

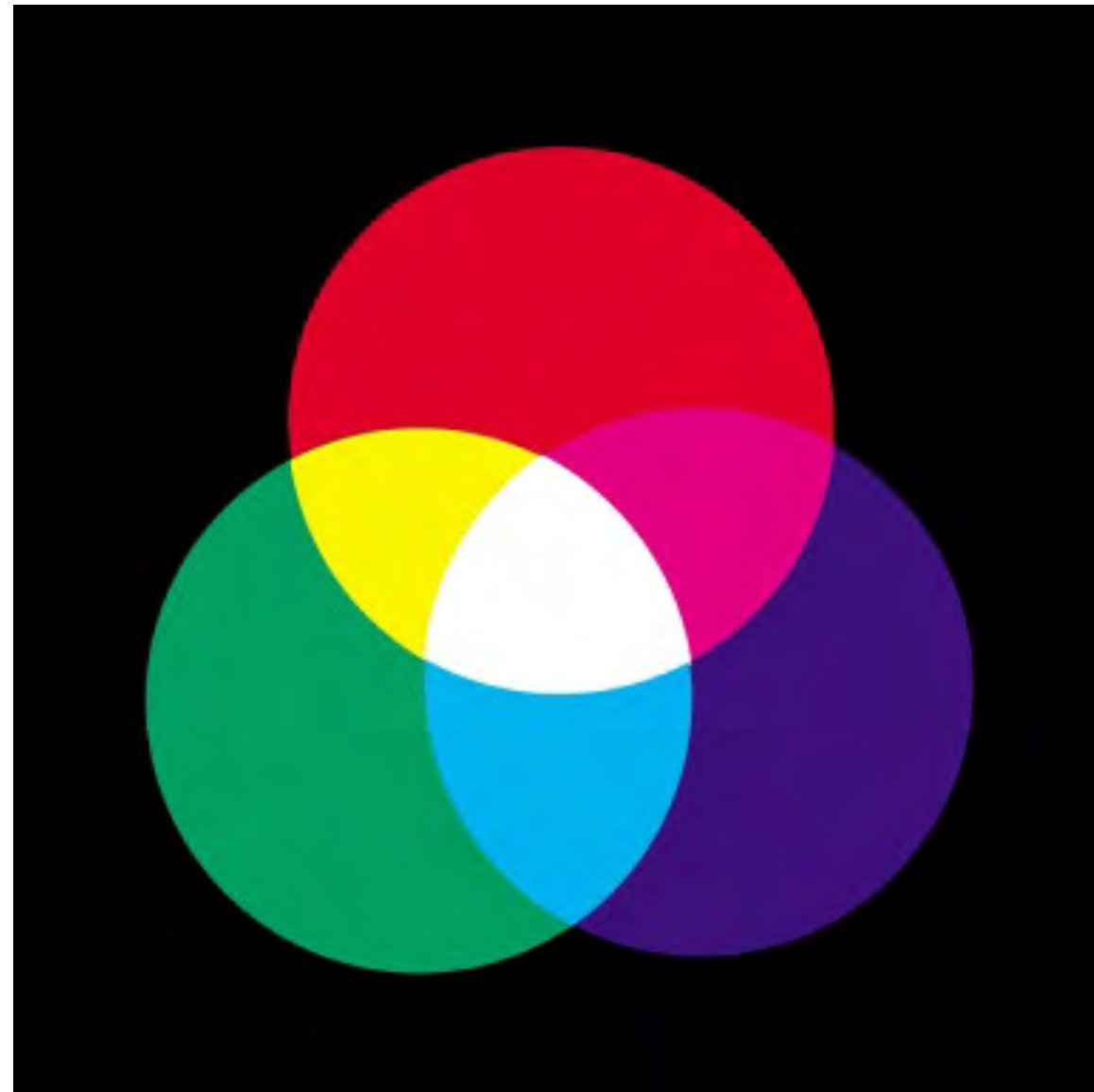


Minimalists hate it, but sometimes users like embellishment

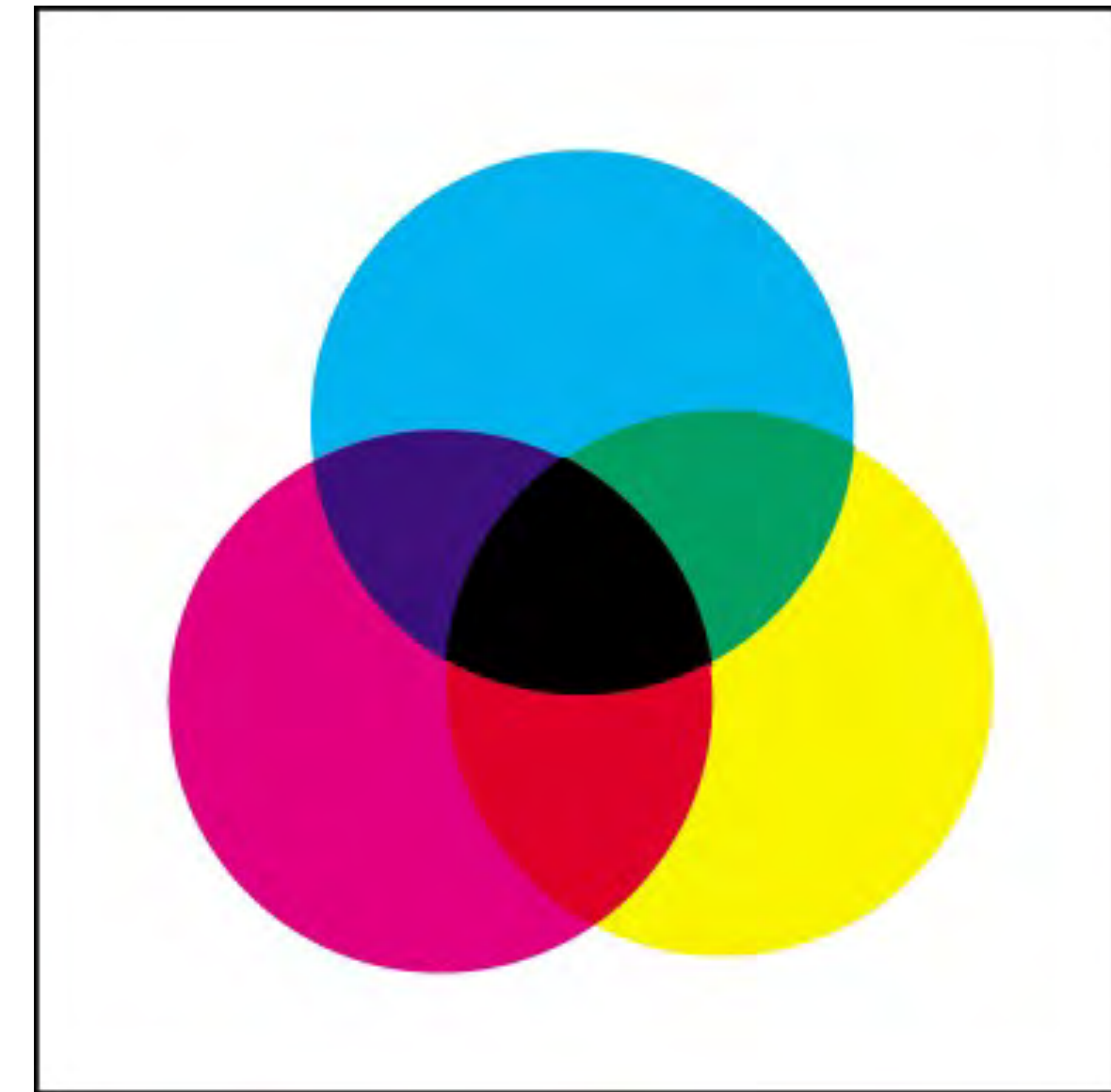


COLOR

COLOR SPACES



RGB
Additive
Electronic Media



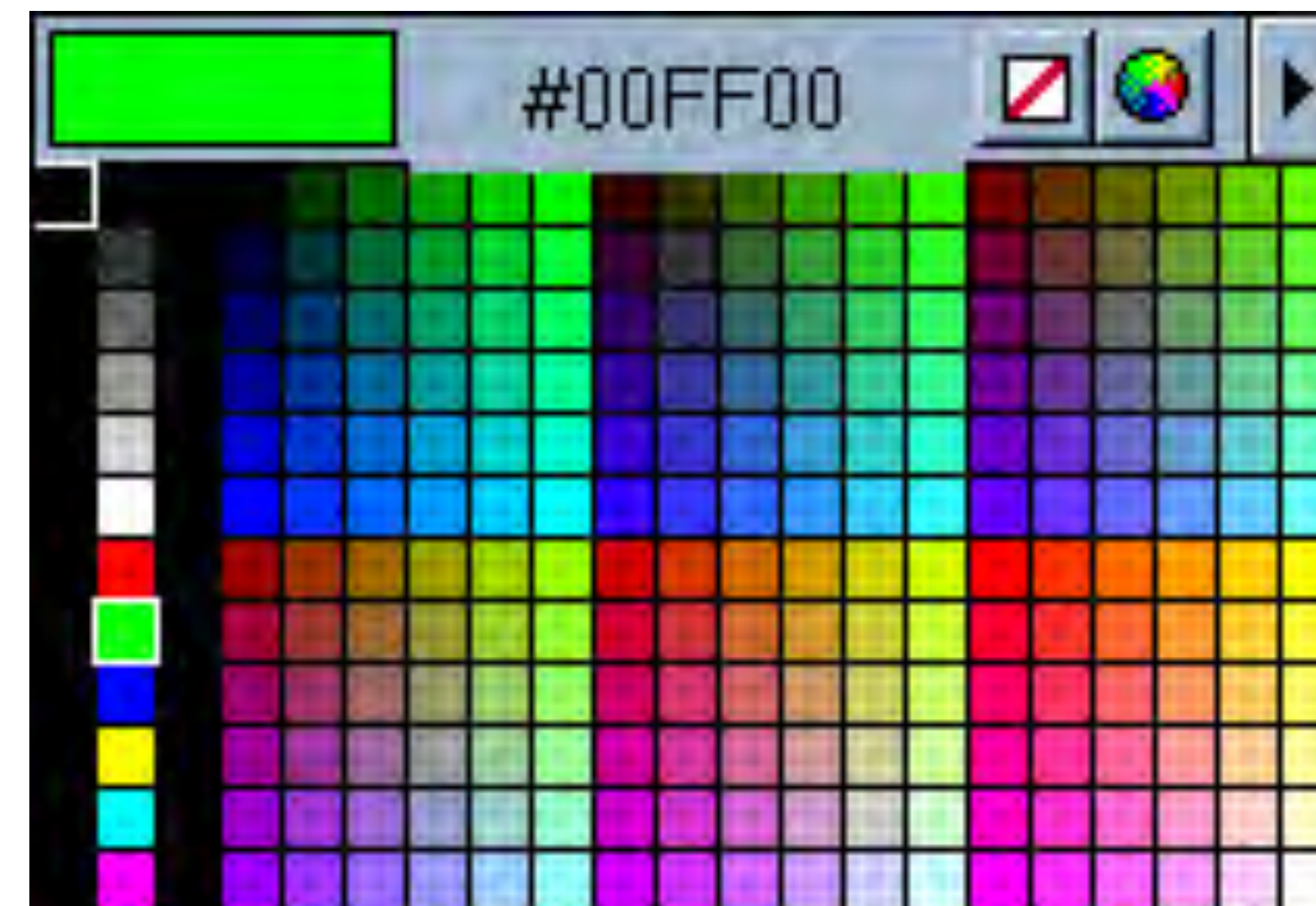
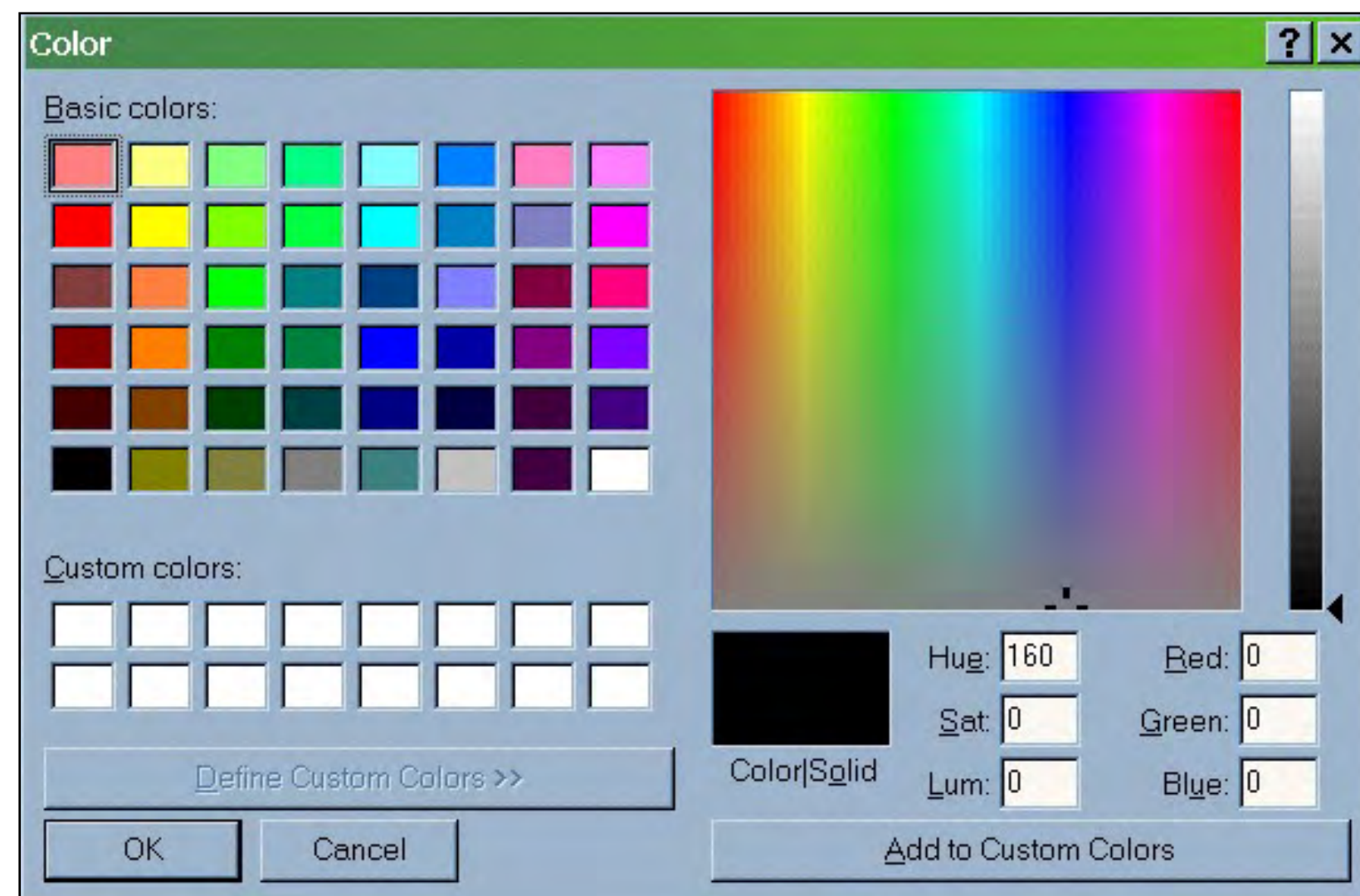
CMY
Subtractive
Printed Media

Parameters of color space driven by technology

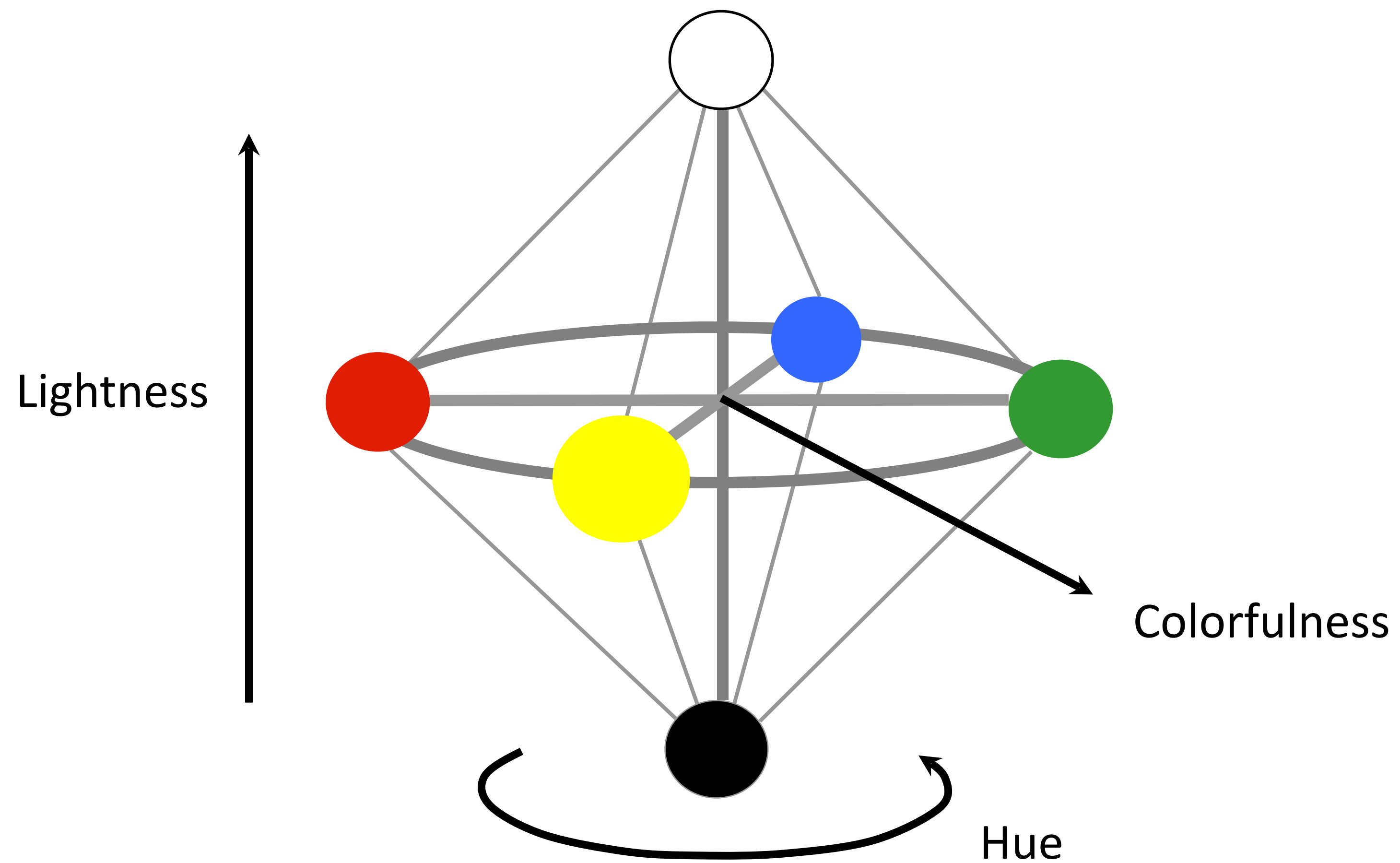
TECHNOLOGY-CENTERED COLORS

Nice RGB Hex codes, “evenly” distributed

But, lime green and hot pink?



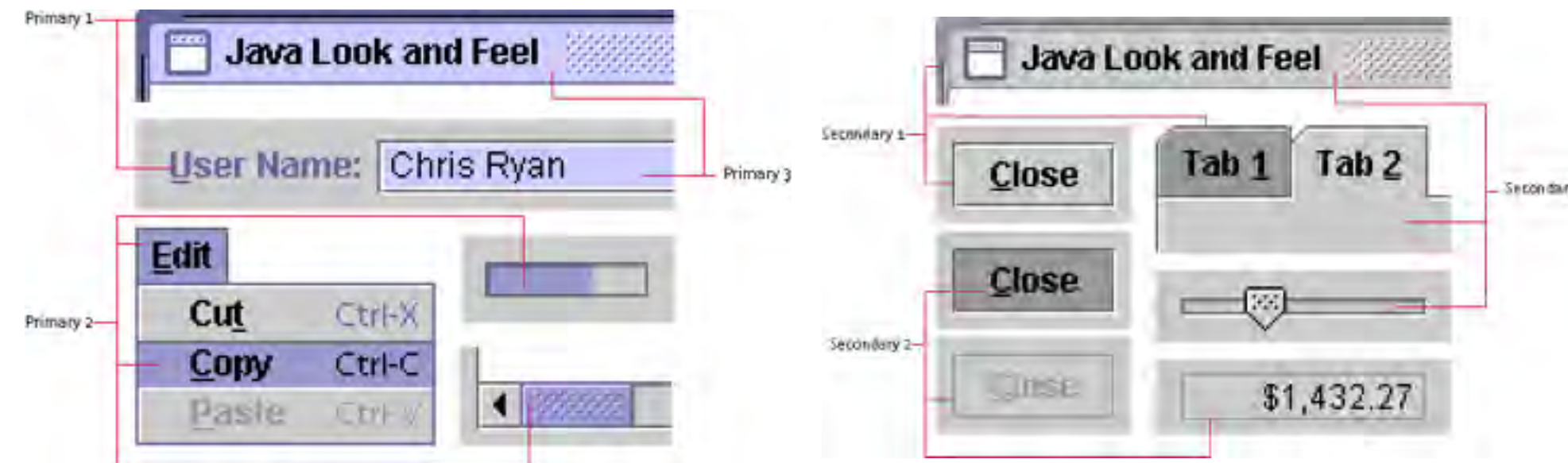
PERCEPTUAL ORGANIZATION



Parameters of color space driven by perception

TIPS FOR PICKING COLORS

Use a limited palette
(e.g., 6 colors in Java
look and feel)



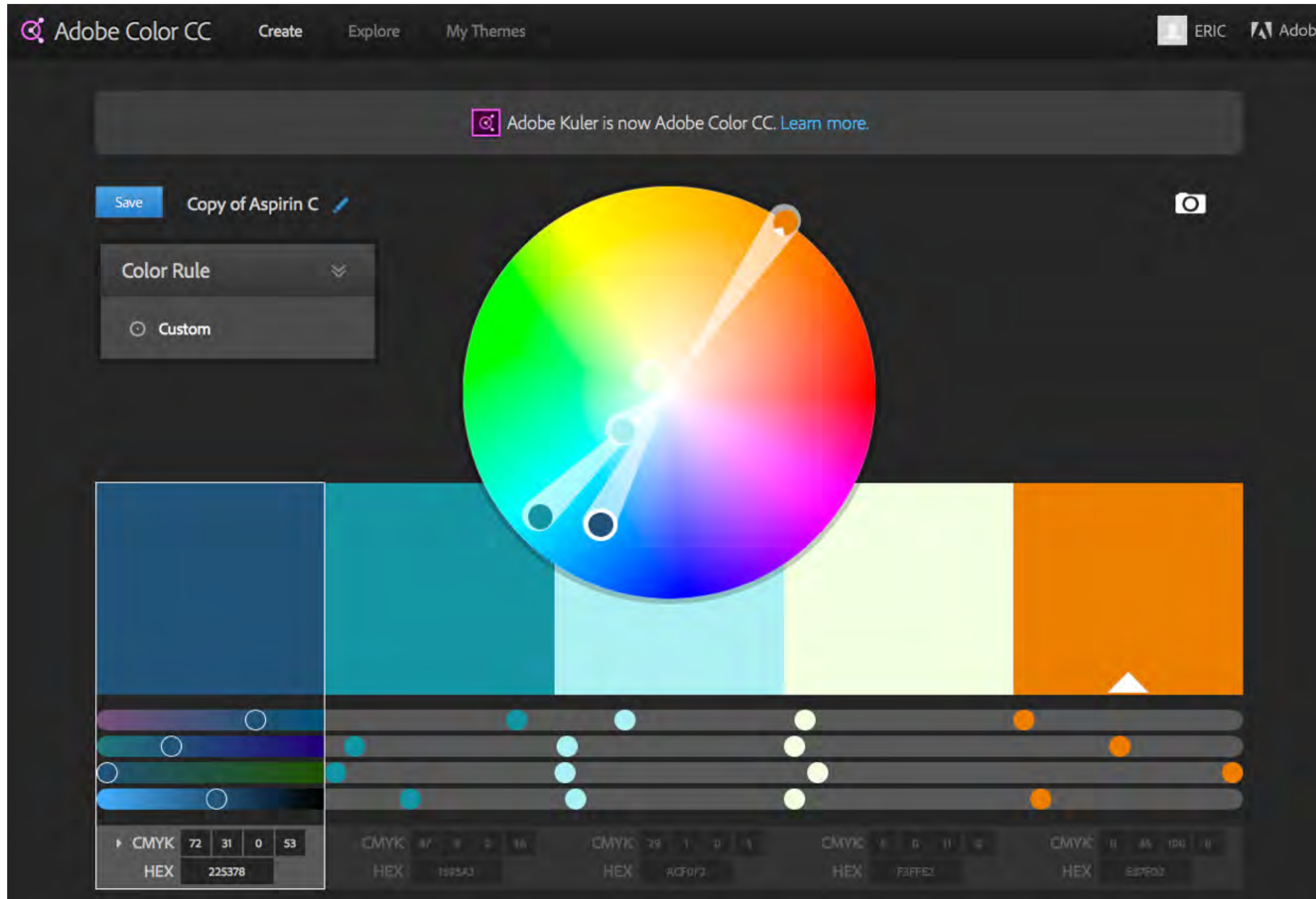
Don't rely on fully
saturated colors



Ensure good color
contrast for text



ADOBE COLOR





GESTALT PRINCIPLES

PRINCIPLES

FIGURE/GROUND

PROXIMITY

SIMILARITY

SYMMETRY

CONNECTEDNESS

CONTINUITY

CLOSURE

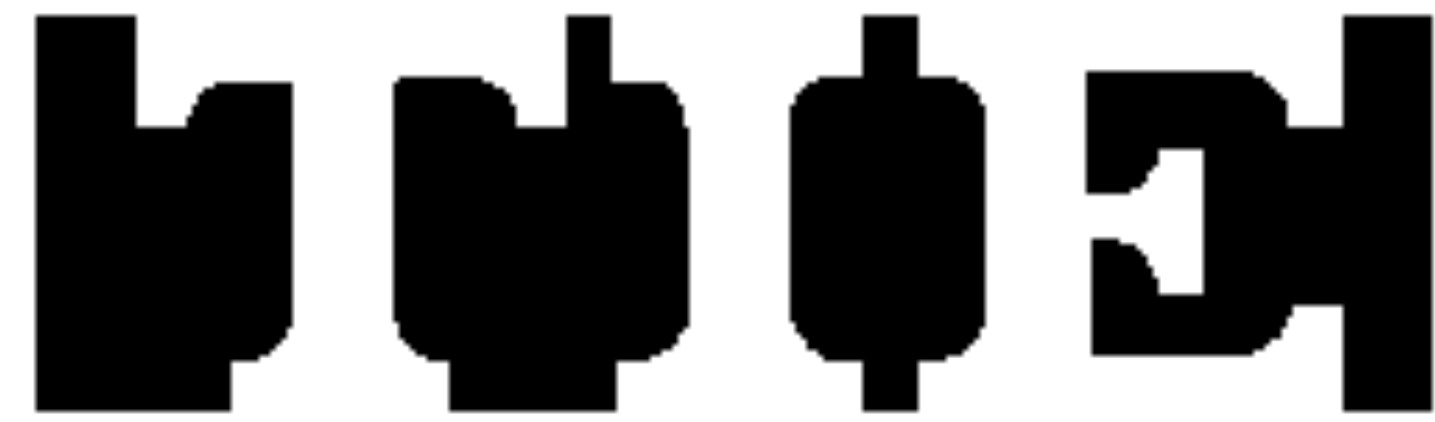
COMMON FATE

TRANSPARENCY

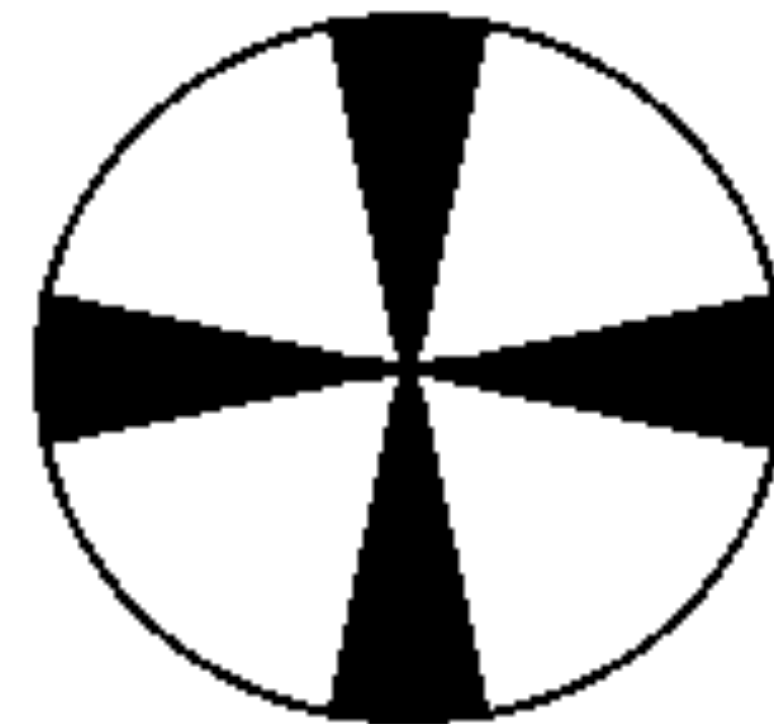
FIGURE/GROUND



Ambiguous



Principle of surroundedness

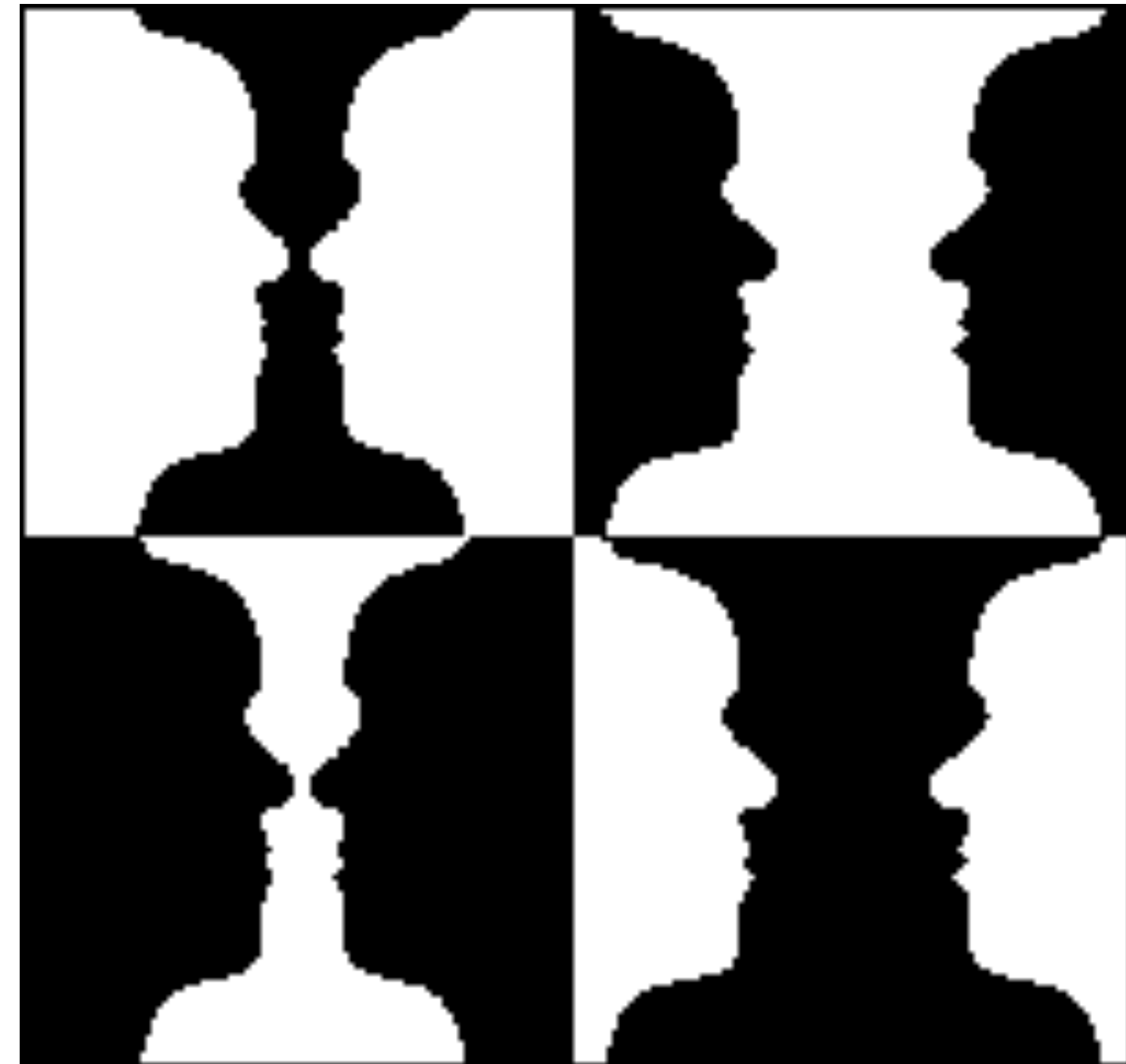


Principle of relative size

FIGURE/GROUND



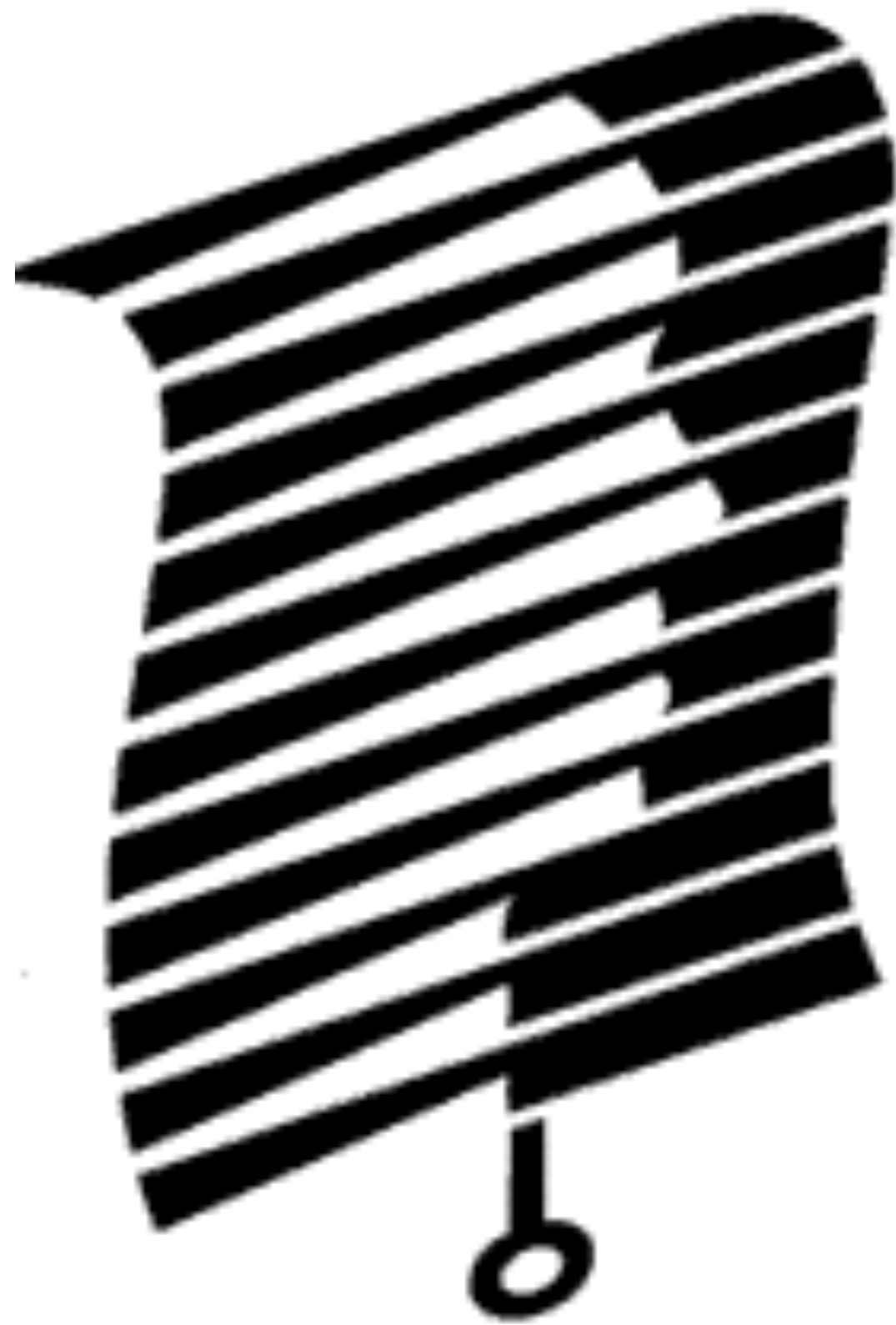
Ambiguous



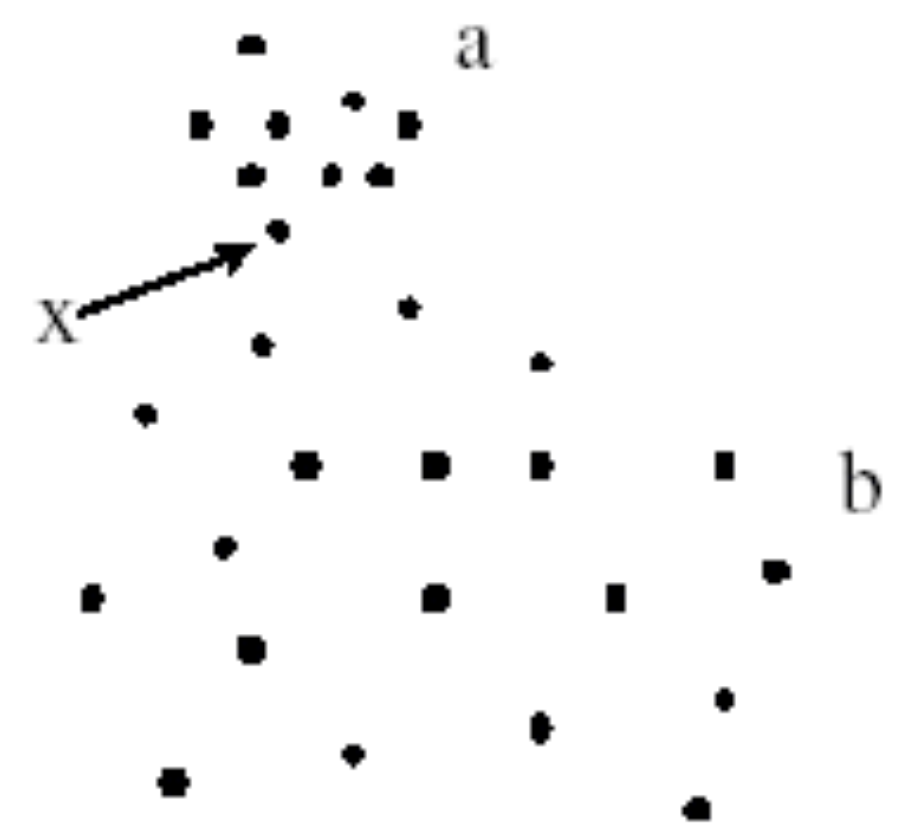
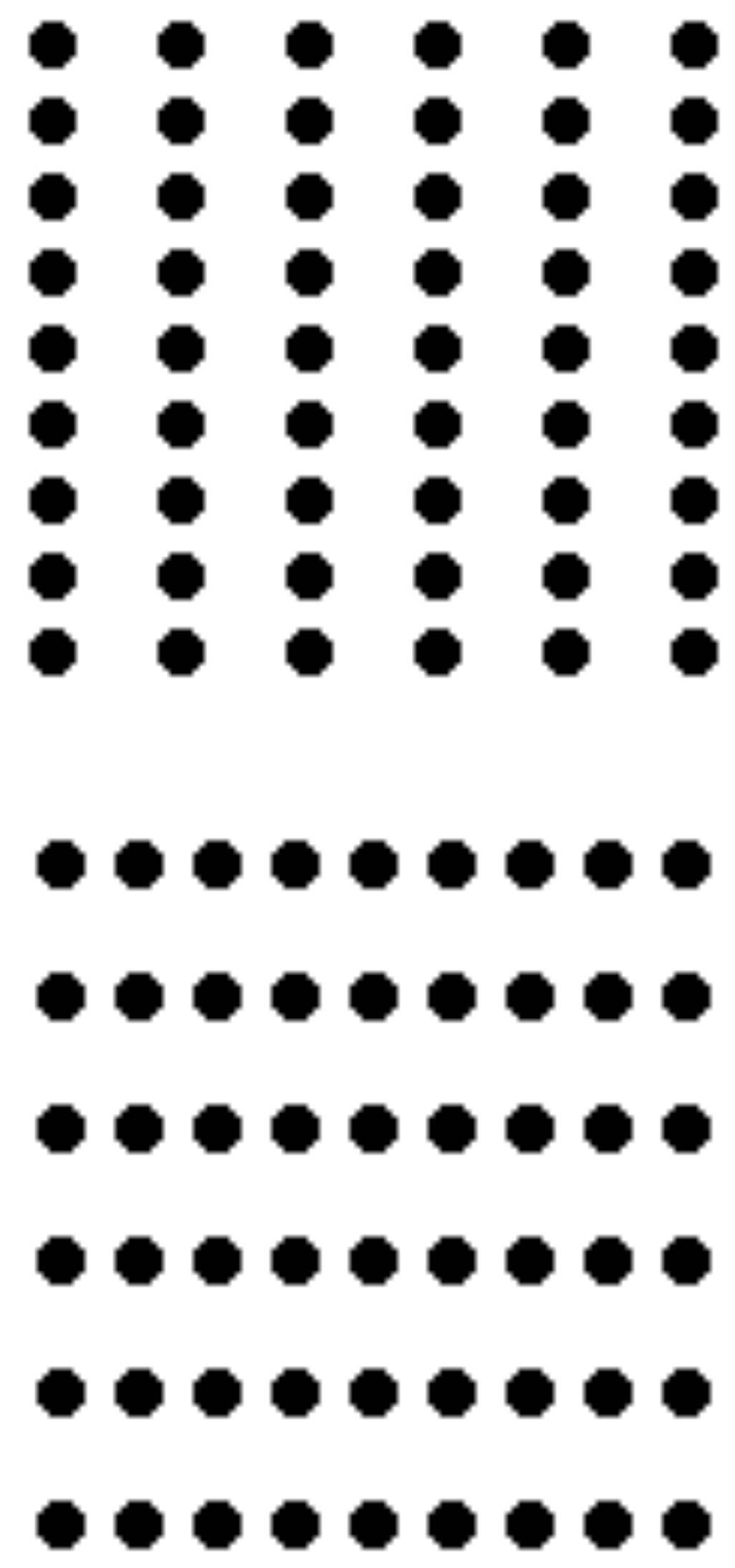
Unambiguous

<http://users.aber.ac.uk/dgc/Modules/FM21820/visper07.html>

FIGURE/GROUND

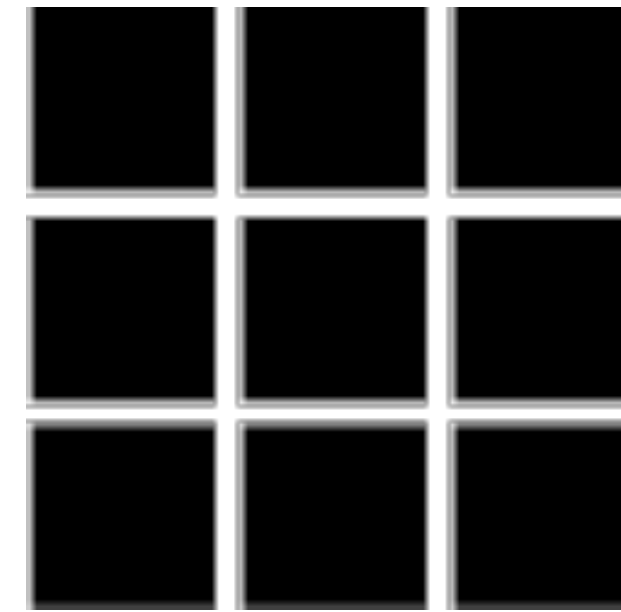
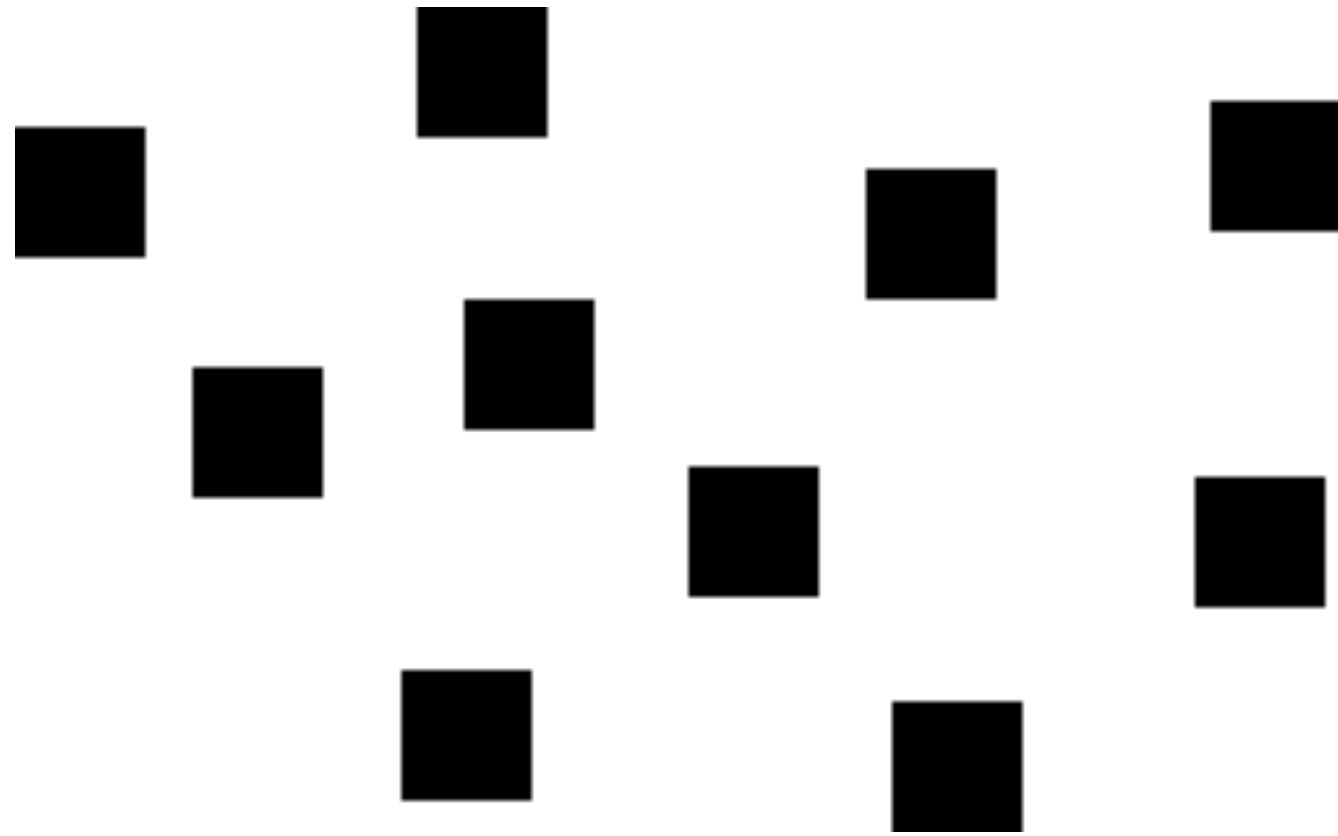


PROXIMITY



Dots that are near one another are grouped
Dots that are concentrated are grouped

PROXIMITY



PROXIMITY

Tuesday, November 4

Election Day

An American Menu \$75

Caesar salad with anchovies, egg, and
Parmesan cheese

Clam chowder with Maine lobster and
pancetta

Grilled chicken with house-made
barbeque sauce with potato purée and
greens

Apple and raspberry pecan crisp with
vanilla ice cream

PROXIMITY

Tuesday, November 4 — Election Day

An American Menu
\$75

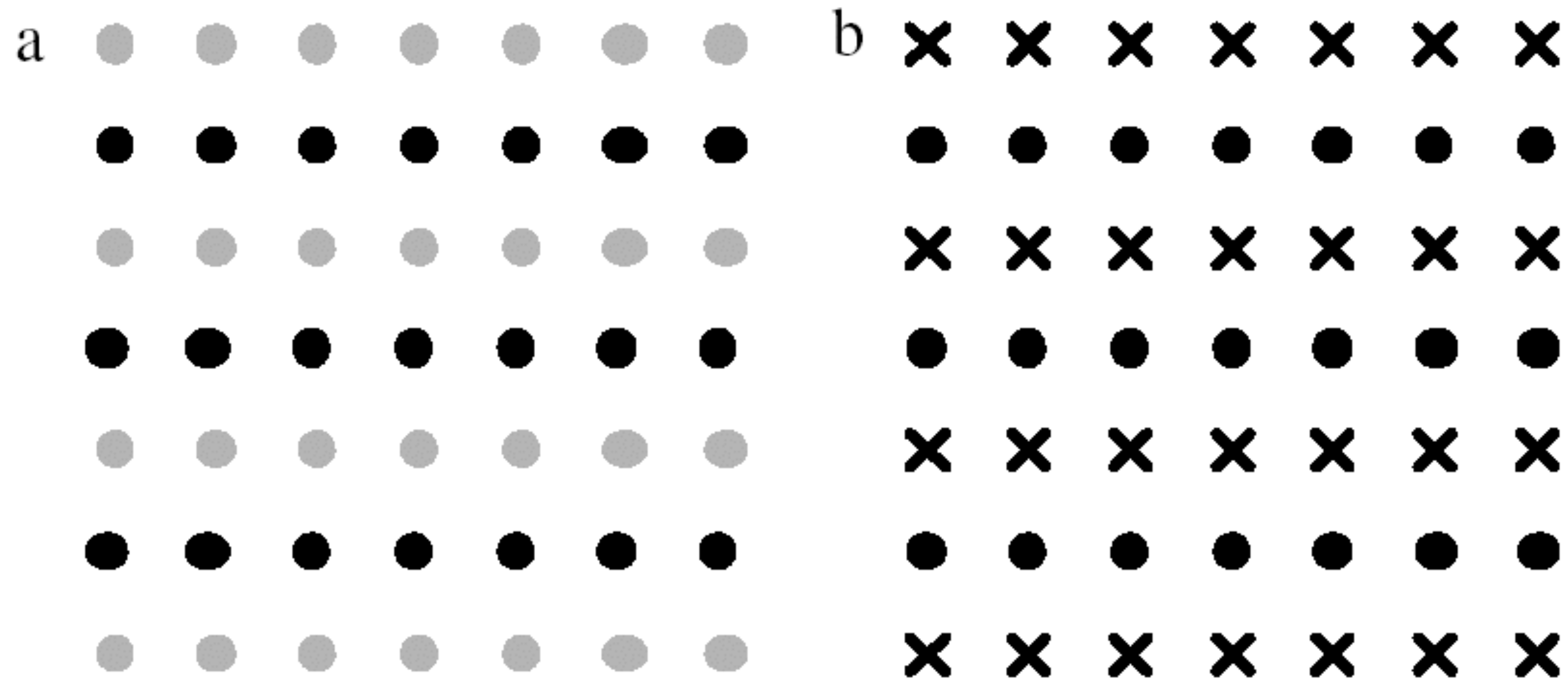
Caesar salad with anchovies, egg, and
Parmesan cheese

Clam chowder with Maine lobster
and pancetta

Grilled chicken with house-made
barbeque sauce with potato purée
and greens

Apple and raspberry pecan crisp
with vanilla ice cream

SIMILARITY



Rows dominate due to similarity [from Ware 04]

SIMILARITY

TUESDAY, NOVEMBER 4 — ELECTION DAY

AN AMERICAN MENU \$75

Caesar salad

with anchovies, egg, and Parmesan cheese

Clam chowder

with Maine lobster and pancetta

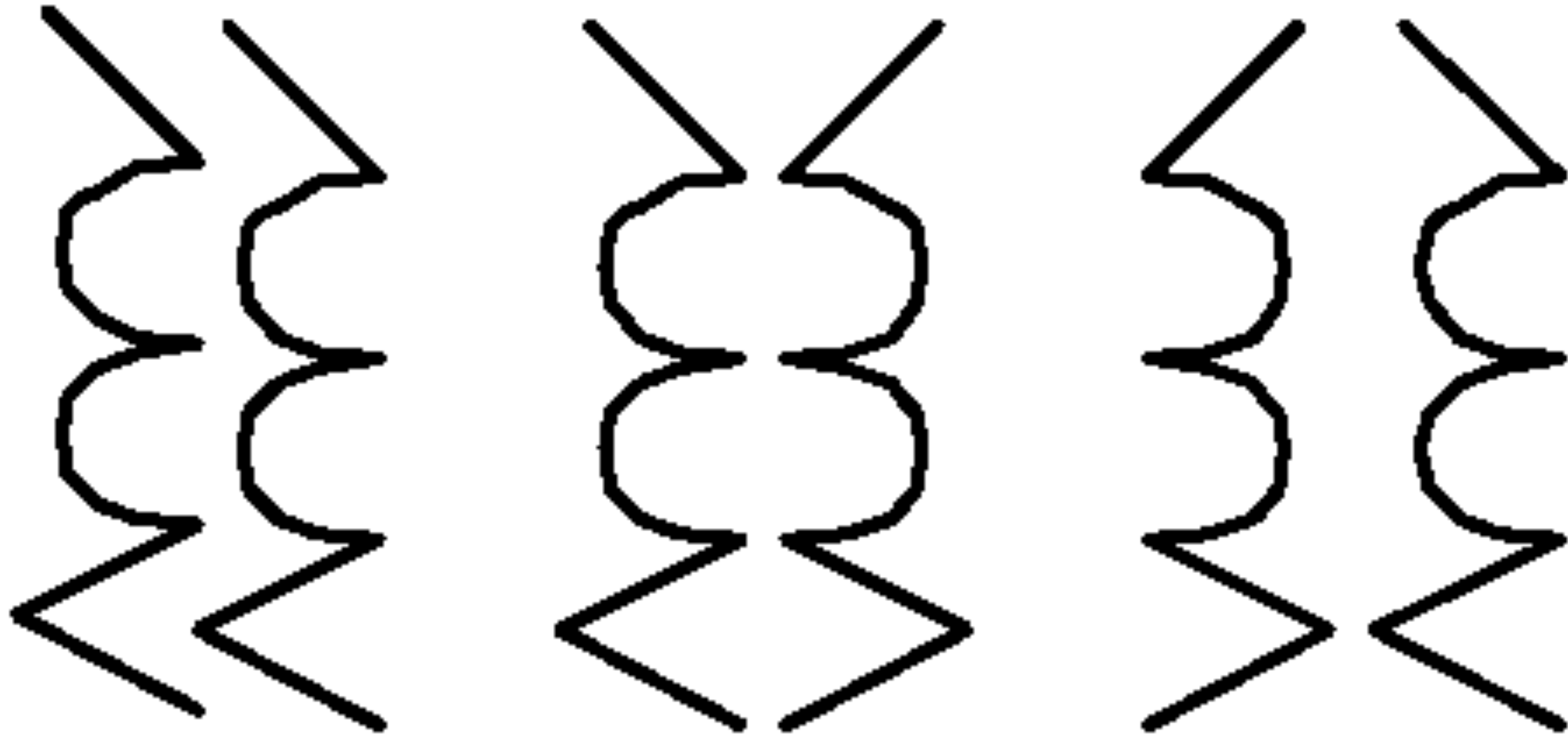
Grilled chicken

with house-made barbeque sauce with
potato purée and greens

Apple and raspberry pecan crisp

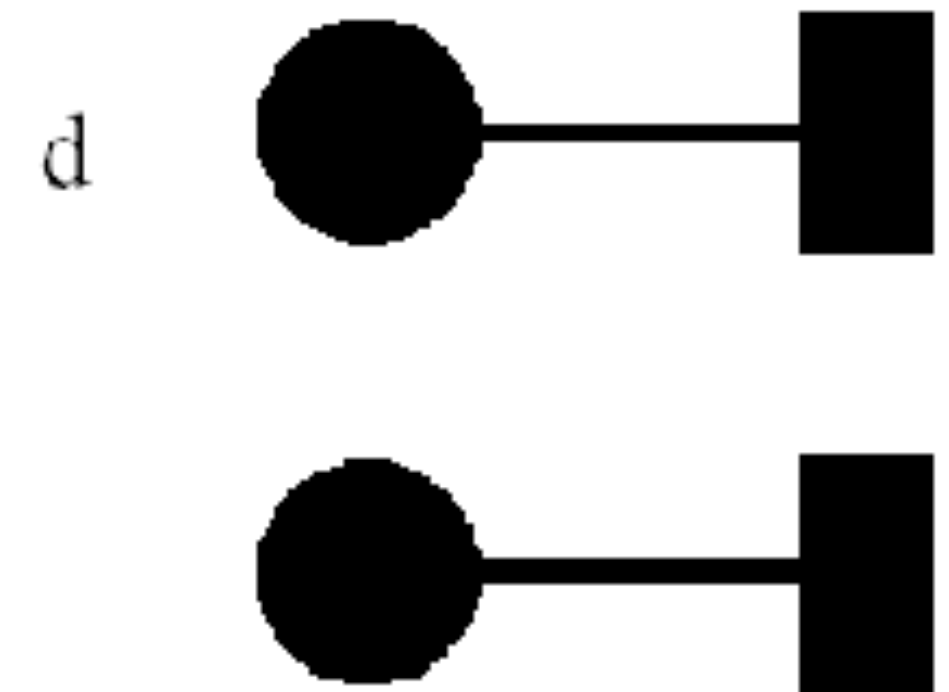
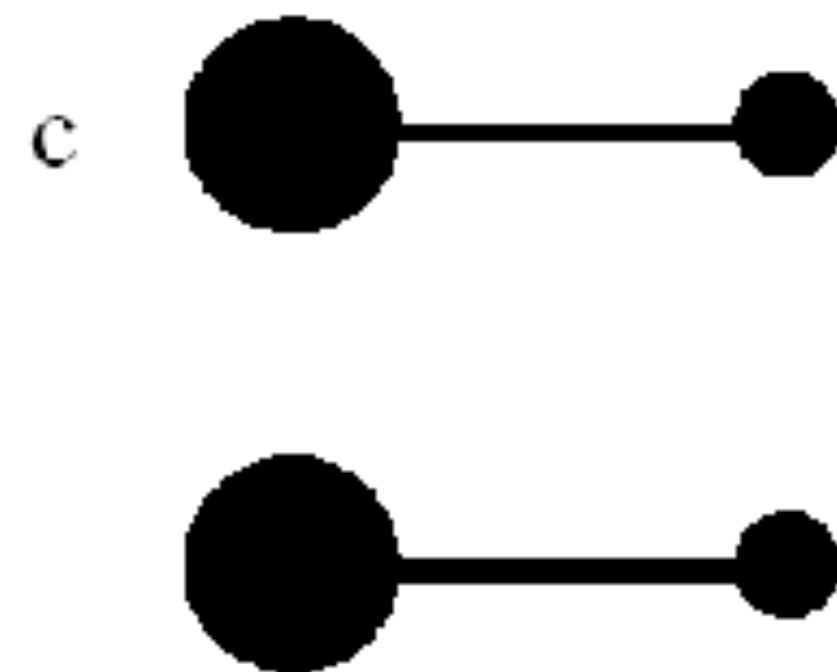
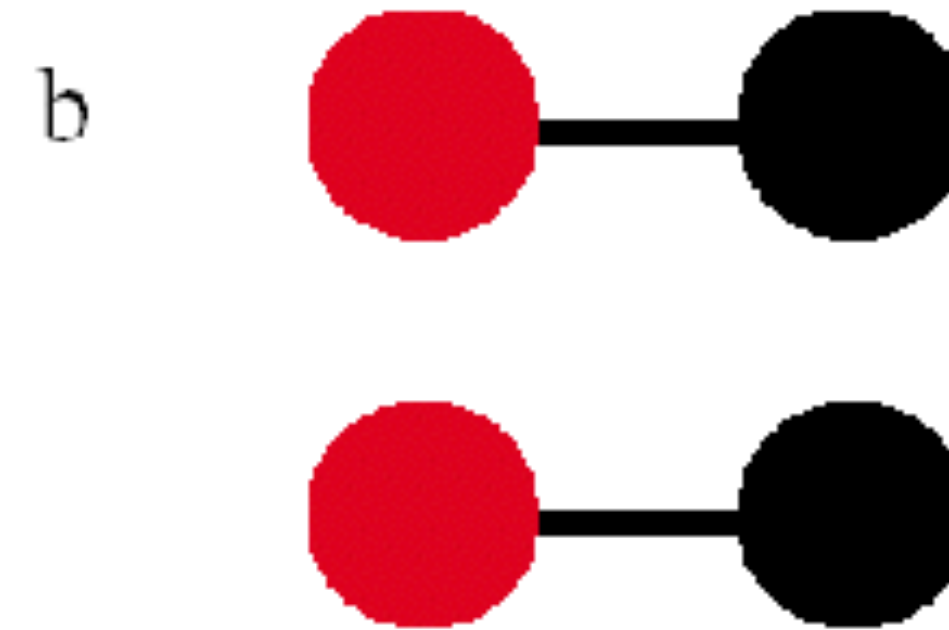
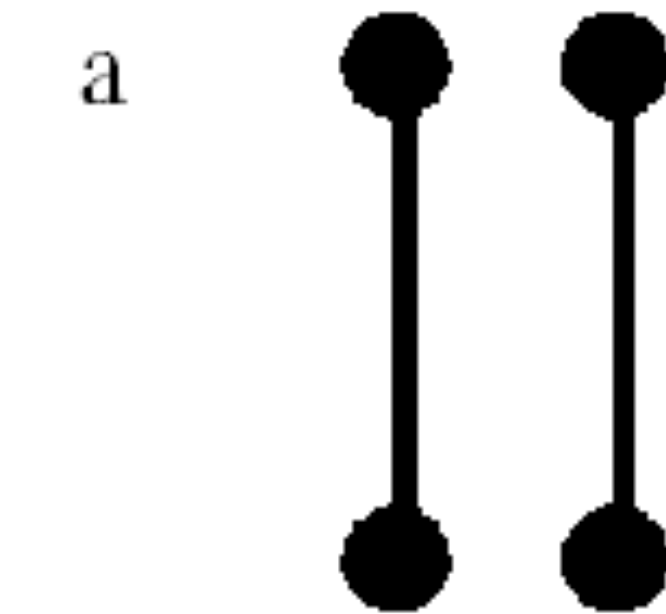
with vanilla ice cream

SYMMETRY



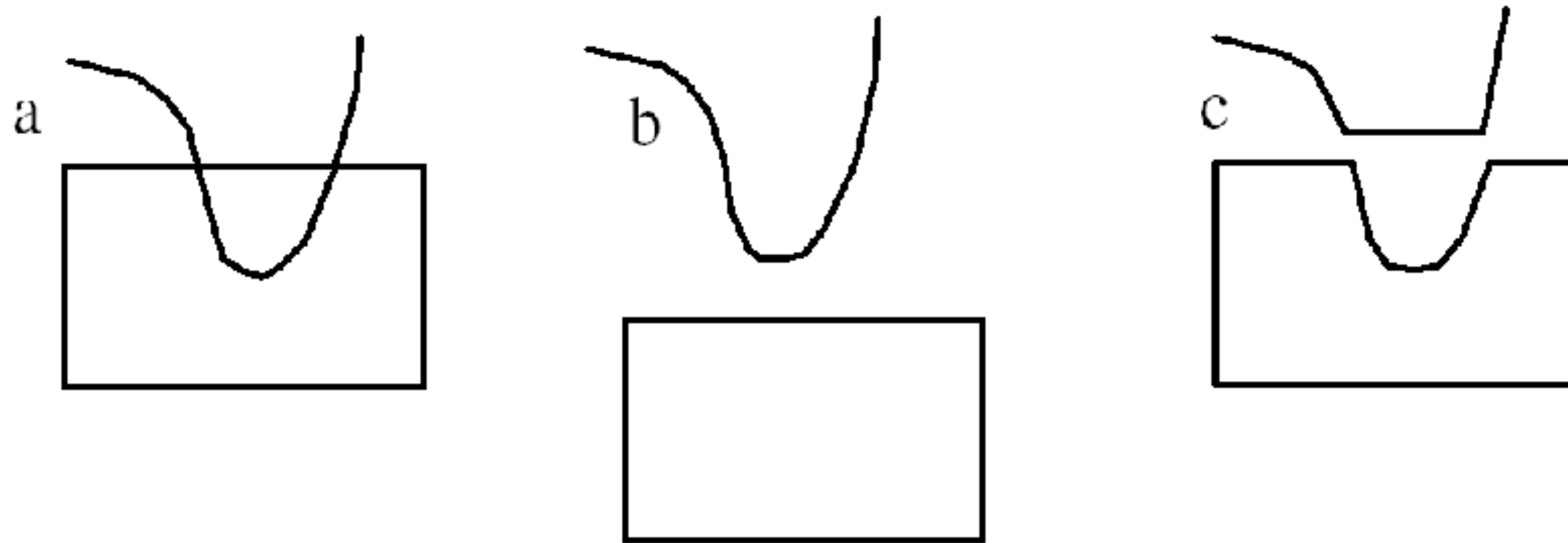
Bilateral symmetry gives strong sense of figure [from Ware 04]

CONNECTEDNESS

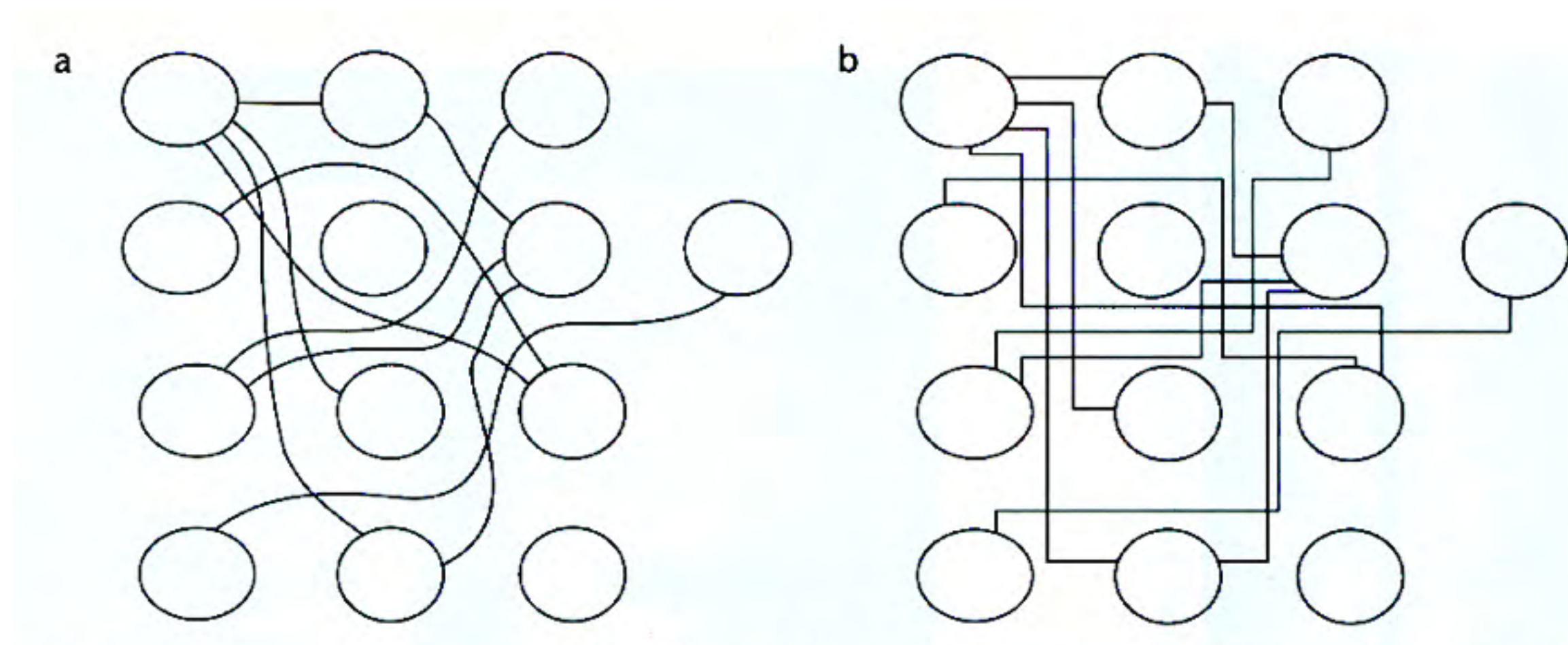


Connectedness overrules proximity, size, color shape [from Ware 04]

CONTINUITY



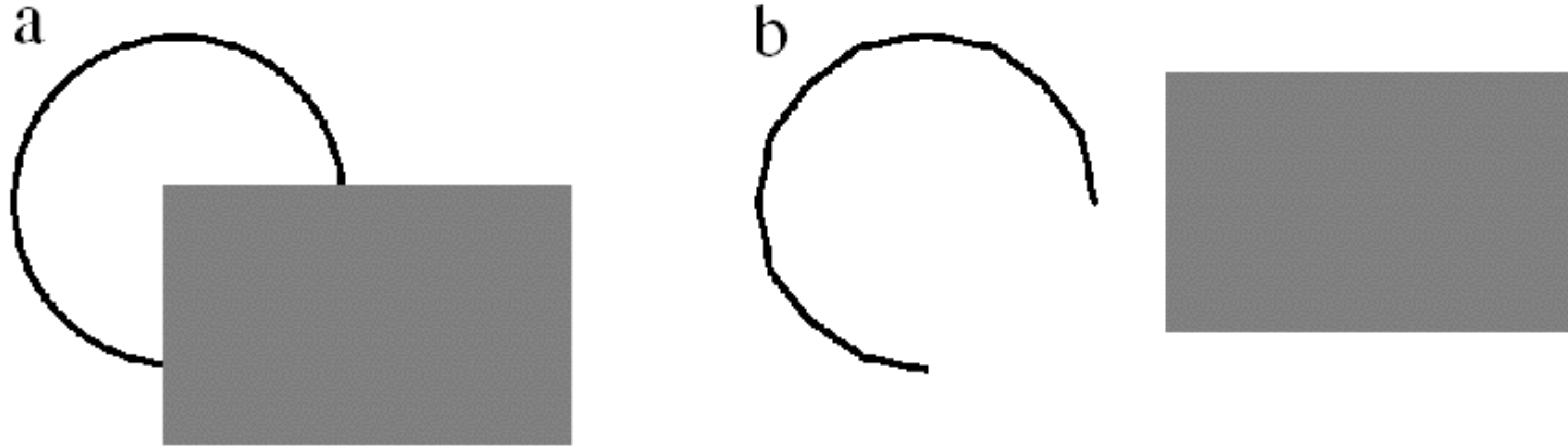
We prefer smooth not abrupt changes [from Ware 04]



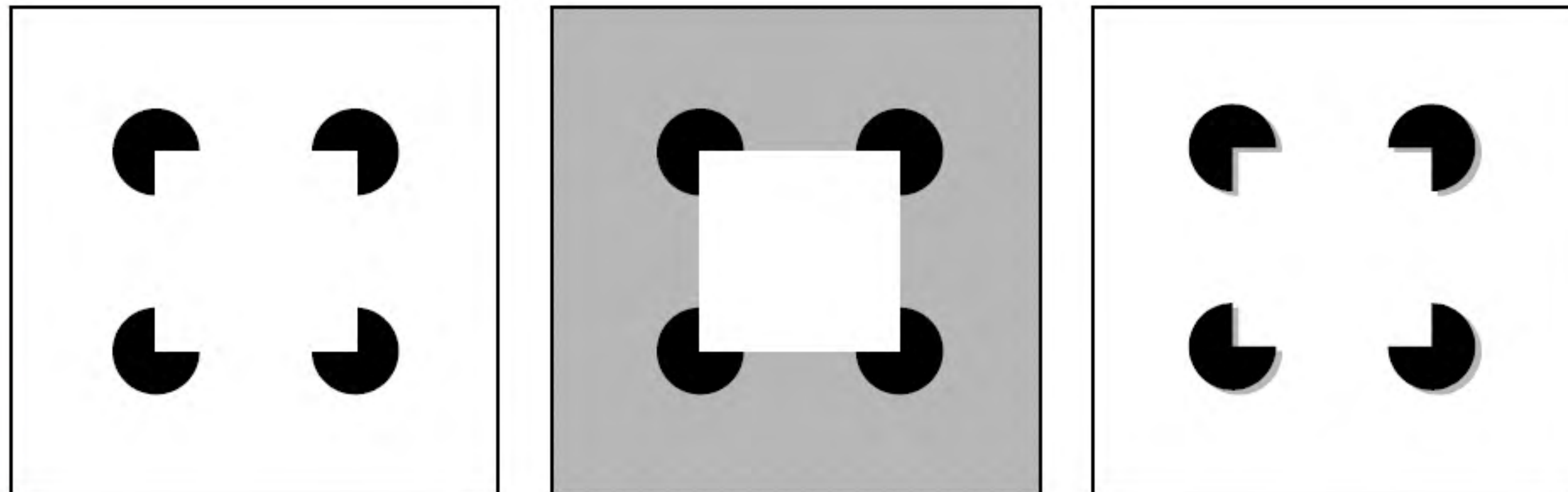
Connections are clearer with smooth contours [from Ware 04]



CLOSURE



We see a circle behind a rectangle, not a broken circle [from Ware 04]



Illusory contours [from Durand 02]



SUMMARY

Design is about communication, form and function

Simplicity and elegance are keys to good design

Minimalism constrains you and reduces chances of bad design

Use a small palette of colors

Human vision is organized by Gestalt Principles

Be aware of these principles as you design the visual look

Avoid common layout mistakes by using grid-based design