Ellen Lupton: Letter

The Elements
of Typographic Style

second edition, revised & enlarged

Robert Bringhurst

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REALIST (19th & early 20th centuries): unmodulated ... vertical axis; small aperture; serifs absent or abrupt and ... with main strokes; italic absent or replaced by sloped roman ...

LYRICAL MODERNIST (20th century): rediscovery of Renaissance form; modulated stroke; humanist axis; pen-formed serifs and terminals; large aperture; italic partially liberated from roman.

POSTMODERNIST (late 20th & early 21st century): frequent parody of Neoclassical, Romantic or Baroque form; rationalist or variable axis; sharply modeled serifs and terminals; moderate aperture. (There are many kinds of Postmodernist letter. This is one example.)

... h century): unmodulation ... ure; serifs absent or ... ... by sloped roman ... ... first appears.

The Elements

of Typographic Style

Applied *to the* Web

A practical guide to web typography

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Note

At the time of writing this is a work in progress – the site is being added to one principle at a time.

You can subscribe to an RSS feed for notification of new additions.

Letter

CAP HEIGHT

X-HEIGHT

BASELINE

Fancy

STEM BOWL SERIF DESCENDER

LIGATURE ASCENDER TERMINAL ASCENDER

flesh fresh

FINIAL SPINE

UPPERCASE SMALL CAPITAL

Blood

CROSS BAR COUNTER LOWERCASE

skin, Body

ASCENDER HEIGHT
Some elements may extend slightly above the cap height.

CAP HEIGHT
The distance from the baseline to the top of the capital letter determines the letter's point size.

DESCENDER HEIGHT
The length of a letter's descenders contributes to its overall style and attitude.

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.*

OVERHANG *The curves at the bottom of letters 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. Without overhang, rounded letters would look smaller than their flat-footed compatriots.*

Bone

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 more than half of the cap height. The larger the x-height is in relation to the cap height, the bigger the letters appear to be. In a field of text, the greatest density occurs between the baseline and 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 Pro (14-pt type with 18 pts of line spacing) is paired with 7/9 Scala Pro.

Size

Attempts to standardize the measurement of type began in the eighteenth century. The *point system* 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 can also be measured in inches, millimeters, or pixels. Most software applications let the designer choose a preferred unit of measure; picas and points are standard defaults.

NERD ALERT: 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

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12 points equal 1 pica

6 picas (72 points) equal 1 inch

Big

60-POINT SCALA
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.

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 proportions and visual impression 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 line weight of the letters,however, forcing heavy elements to become thin, and thin elements to become thick. Instead of torturing a letterform, choose a typeface that has the proportions you are looking for, such as condensed, compressed, wide, or extended.

Size Crime: Vertical or Horizontal Scaling

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 compressed 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.

Do I look fat in this paragraph?

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

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

Mr. Big versus *Mrs.* & Mr. Little

The x-height of a typeface affects its apparent size, its space efficiency, and its overall visual impact. Like hemlines and hair styles, x-heights go in and out of fashion. Bigger type bodies became popular in the mid-twentieth century, making letterforms look larger by maximizing the area within the overall point size.

12/14 HELVETICA

Typefaces with small x-heights, such as MRS EAVES, use space less efficiently than those with big lower bodies. However, their delicate proportions have lyrical charm.

12/14 MRS EAVES

Like his lovely wife, **MR EAVES** has a low waist and a small body. His loose letterspacing also makes him work well with his mate.

12/14 MR EAVES

Because of its huge x-height, Helvetica can remain legible at small sizes. Set in 8 pts for a magazine caption, Helvetica can look quite elegant. The same typeface could look bulky and bland, however, standing 12 pts tall on a business card.

8/10 HELVETICA

The size of a typeface is a matter of context. A line of text that looks tiny on a television screen may appear appropriately scaled in a page of printed text. Smaller proportions affect legibility as well as space consumption. A diminutive x-height is a luxury that requires sacrifice.

8/10 MRS AND MR 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 in print. Sizes between 9 and 11 pts are common for printed text. This caption is 7.5 pts.

All the typefaces shown below were inspired by the sixteenth-century printing types of Claude Garamond, yet each one reflects its own era. The lean forms of Garamond 3 appeared during the Great Depression, while the inflated x-height of ITC Garamond became an icon of the flamboyant 1970s.

Grapes of *Wrath*

30-PT GARAMOND 3   30-PT ITC GARAMOND

GARAMOND IN THE TWENTIETH CENTURY: VARIATIONS ON A THEME

1930s: Franklin D. Roosevelt, SALVADOR DALÍ, Duke

18-PT GARAMOND 3, *designed by Morris Fuller Benton and Thomas Maitland Cleland for ATF, 1936*

Ellington, *Scarface*, chicken and waffles, shoulder pads, radio.

1970s: *Richard Nixon, Claes Oldenburg, Van Halen,*

18-PT ITC GARAMOND, *designed by Tony Stan, 1976*

The Godfather, bell bottoms, guacamole, sitcoms.

1980s: Margaret Thatcher, BARBARA KRUGER, Madonna,

18-PT ADOBE GARAMOND, *designed by Robert Slimbach, 1989*

Blue Velvet, shoulder pads, pasta salad, desktop publishing.

2000s: Osama Bin Laden, MATTHEW BARNEY, the White

18-PT ADOBE GARAMOND PREMIERE PRO MEDIUM SUBHEAD, *designed by Robert Slimbach, 2005*

Stripes, *The Sopranos*, mom jeans, heirloom tomatoes, Twitter.

A type family with *optical sizes* has different styles for different sizes of output. The graphic designer selects a style based on context. Optical sizes designed for headlines or display tend to have delicate, lyrical forms, while styles created for text and captions are built with heavier strokes.

No Job *Too Small*

48-PT BODONI · 8-PT BODONI

TYPE CRIME
Some typefaces that work well at large sizes look too fragile when reduced.

OPTICAL SIZES

HEADLINES are slim, *high-strung* prima donnas.
27-PT ADOBE GARAMOND PREMIERE PRO DISPLAY

SUBHEADS are *frisky* supporting characters.
27-PT ADOBE GARAMOND PREMIERE PRO SUBHEAD

TEXT is the *everyman* of the printed stage.
27-PT ADOBE GARAMOND PREMIERE PRO REGULAR

CAPTIONS get *heavy* to play small roles.
27-PT ADOBE GARAMOND PREMIERE PRO CAPTION

10 PT

In the era of METAL TYPE, type designers created a different *punch* for each size of type, adjusting its weight, spacing, and other features. Each size required a unique typeface design.

ADOBE GARAMOND PREMIERE PRO DISPLAY

When the type design process became automated in the NINETEENTH CENTURY, many typefounders economized by simply *enlarging or reducing* a base design to generate different sizes.

ADOBE GARAMOND PREMIERE PRO REGULAR

This MECHANIZED APPROACH to type sizes became the norm for photo and digital type production. When a text-sized letterform is enlarged to poster-sized proportions, its thin features become too heavy (and vice versa).

ADOBE GARAMOND PREMIERE PRO CAPTION

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.

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

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

80 PT

A

A

A

Scale

Scale is the size of design elements in comparison to other elements in a layout as well as to the physical context of the work. Scale is relative. 12-pt type displayed on a 32-inch monitor can look very small, while 12-pt type printed on a book page can look flabby and overweight. Designers create hierarchy and contrast by playing with the scale of letterforms. Changes in scale help create visual contrast, movement, and depth as well as express hierarchies of importance. Scale is physical. People intuitively judge the size of objects in relation to their own bodies and environments.

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THE WORLD IS FLAT

TYPE CRIME
Minimal differences in type size make this design look tentative and arbitrary.

THE WORLD IS FLAT

SCALE CONTRAST
The strong contrast between type sizes gives this design dynamism, decisiveness, and depth.

THE RIGHT OF CITIZENS of the United States TO VOTE SHALL NOT BE DENIED or abridged by the United States or by any State ON ACCOUNT OF SEX.

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.

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.

CLARENDON
Aa

EGYPTIAN OR SLAB SERIF
Numerous bold and decorative typefaces were introduced in the nineteenth century for use in advertising. Egyptian typefaces 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, lilting 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.

In the sixteeenth century, printers began organizing roman and italic typefaces into matched families. The concept was formalized in the early twentieth century.

ANATOMY OF A TYPE FAMILY   ADOBE GARAMOND PRO, *designed by Robert Slimbach, 1988*

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

ADOBE GARAMOND PRO 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 letters, which are based on cursive writing, have forms distinct from roman.

ADOBE GARAMOND PRO ITALIC

The italic form is used to create emphasis. Especially among serif faces, it often employs shapes and strokes distinct from its roman counterpart. Note the differences between the roman and italic a.

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

ADOBE GARAMOND PRO REGULAR (ALL 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 PRO 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 PRO BOLD AND SEMIBOLD ITALIC

The typeface designer tries to make the two bold versions feel similar in comparison to the roman, without making the overall form too heavy. The counters need to stay clear and open at small sizes. Many designers prefer not to use bold and semi-bold versions of traditional typefaces such as Garamond, because these weights are alien to the historic families.

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.*

THANKFUL

EMBOLDENED

McSWEENEY'S

FULL TO BURSTING! FULL TO BURSTING! FULL! BLOOD OF US ALL!

&

HOT-BLOODED

LIFE-SAVING

PERPETUAL

&

THE PRESUMPTION OF GOOD WILL

A momentary reprieve.

NO. 9
PROMPTLY

IRRATIONAL (OR MORE LIKELY, IRREDUCIBLY RATIONAL)

NO. 9
WITH GUSTO

GABE HUDSON
Cannibas! The greatest of battles. Bring it back!

DENIS JOHNSON
Depravity. The cutteot of a new enemy. For whom?

ROY KESEY
The possibilities of possession, of ruin. Balance!

K. KVASHAY-BOYLE
Floating. Watching. The responsibility of accusation.

DOUG DORST
Good. Lost. The burden of being endlessly wrong.

JEFF GREENWALD
Conflict without reason or result. This is the problem.

A. M. HOMES
A new creation myth. A flight into a lesser life.

NATHANIEL MINTON
Being lost. Being buried. Longing. Heat. Topography.

ELLEN MOORE
Listening to music with headphones next to the person you love.

VAL VINOKUROV
Russians lurking. Russians floating. Russians standing.

W.T. VOLLMANN
Catacombs. Corpses. Of course there are jokes.

TAKE: *your aggression.* QUESTION: *your aggression.* REMOVE IT: *from the company of others.* WALK WITH IT: *to a faraway place.* ALONE? *Yes, alone.* LEAVE IT: *under a great wide sky, exposed, apart.* DO NOT: *bury it.* DO NOT: *live with it.* NEVER: *in your home.* NOT: *in your life.* IT IS: *viral.* IT GROWS: *like a shadow.* WE MUST: *carry it away.*

TRUST
THIS GODDAMN LAND

HOLD
THEM CLOSE

KNOW THEM.

KNOW THEM.

THEY CAN TALK! THEY CAN TALK!

CARRY IT. CARRY THEM.

KEEP IT SWEET.

DO NO HARM.

Breathe.

HARM IS HARM IS HARM.

And yet:

YOUR HARM IS OUR HARM.

CANNOT.
WILL NOT.
CANNOT.
WILL NOT.
CANNOT.
WILL NOT.
CANNOT.
WILL NOT.
CANNOT
LIVE THAT
WAY AGAIN.

REMEMBERING!

WRAP YOUR RARMS!
TINY AND
WEAK ATROPHYING BUT YOURS
& RUBBERY

REMEMBERING!

YOU MUST —
REMEMBERING!

MORE FOR YOUR
SAKE THAN THEIRS

Breathe.

Breathe.

EFFLORESCENCE

BLOOMING OR RASH? • THE HIGHEST POINT. OR SOMETHING THAT ITCHES?

HE IS GONE.

GEG
ENSC
HEIN

NO MORE

Our motto this time: "WE GIVE YOU SWEATY HUGS."

Alternate motto: "WE ARE OUT LOOKING."

Do you sense it?

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LATE SUMMER
EARLY FALL
2002
WE WILL
DO FOUR THIS YEAR

FRIDTJOF

Superfamilies

A traditional roman book face typically has a small family–an intimate group consisting of roman, italic, small caps, and possibly bold and semibold (each with an italic variant) styles. Sans-serif families often come in many more weights and sizes, such as thin, light, black, compressed, and condensed. A *superfamily* consists of dozens of related fonts in multiple weights and/or widths, often with both sans-serif and serif versions. Small capitals and non-lining numerals (once found only in serif fonts) are included in the sans-serif versions of Thesis, Scala Pro, and many other contemporary superfamilies.

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UNIVERS was designed by the Swiss typographer Adrian Frutiger in 1957. He designed twenty-one versions of Univers, in five weights and five widths. Whereas some type families grow over time, Univers was conceived as a total system from its inception.

nnn ppp

Scala

Scala Italic

SCALA CAPS

Scala Bold

SCALA PRO, *designed by Martin Majoor, includes Scala (1991) and Scala Sans (1993). The serif and sans-serif forms have a common spine. Scala Pro (OpenType format) was released in 2005.*

Scala Sans Light

Scala Sans

Scala Sans Condensed

Scala Sans Cond Bold

Scala Sans Bold

Scala Sans Black

SCALA JEWEL CRYSTAL

SCALA JEWEL DIAMOND

SCALA JEWEL PEARL

SCALA JEWEL SAPHYR

Ticket of Admittance,

WITHIN THE ENCLOSURE,
TO VIEW THE

CEREMONY.

═══════

One Shilling)

═══════

he Money raised by these Tickets will be applied to defr
the expences of the Day.

═══════

W. Pratt, Printer, Stokesley

TRILOGY, a superfamily designed by Jeremy Tankard in 2009, is inspired by three nineteenth-century type styles: sans serif, Egyptian, and fat face. The inclusion of the fat face style, with its wafer-thin serifs and ultrawide verticals, gives this family an unusual twist.

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

THE SERIF MEDIUM ROMAN

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

THE SERIF MEDIUM ITALIC

OTHER MATERIALS ARE EMPLOYED BY THE ARCHITECT. SOME DESIGNERS CREATE

THE SERIF MEDIUM SMALL CAPS

their own custom fonts. But most

THE SERIF BLACK ROMAN

graphic designers will tap the vast

THE SERIF EXTRA BOLD ROMAN

store of already existing typefaces,

THE SERIF BOLD ROMAN

choosing and combining each with

THE SERIF SEMI BOLD ROMAN

regard to the audience or situation.

THE SERIF MEDIUM ROMAN

Selecting type with wit and wisdom

THE SERIF SEMI LIGHT

requires knowledge of how and why

THE SERIF LIGHT ROMAN

letterforms have evolved. The history

THE SERIF EXTRA LIGHT ROMAN

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

THE SANS MEDIUM ROMAN

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

THE SANS MEDIUM ITALIC

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

THE SANS MEDIUM SMALL CAPS

energize typography today. Writing

THE SANS BLACK ROMAN

in the West was revolutionized early

THE SANS EXTRA BOLD ROMAN

in the Renaissance, when Johannes

THE SANS BOLD ROMAN

Gutenberg introduced moveable type

THE SANS SEMI BOLD ROMAN

in Germany. Whereas documents and

THE SANS MEDIUM ROMAN

books had previously been written by

THE SANS SEMI LIGHT ROMAN

hand, printing with type mobilized all

THE SANS LIGHT ROMAN

of the techniques of mass production.

THE SANS EXTRA LIGHT ROMAN

A word set in ALL CAPS within running text can look big and bulky, and A LONG PASSAGE SET ENTIRELY IN CAPITALS CAN LOOK UTTERLY INSANE. SMALL CAPITALS are designed to match the x-height of lowercase letters. Designers, enamored with the squarish proportions of true SMALL CAPS, employ them not only within bodies of text but for subheads, bylines, invitations, and more. Rather than MIXING SMALL CAPS WITH CAPITALS, many designers prefer to use ALL SMALL CAPS, creating a clean line with no ascending elements. InDesign and other programs allow users to create FALSE SMALL CAPS at the press of a button; these SCRAWNY LETTERS look out of place.

CAPITAL
investment
CAPITAL
punishment
CAPITAL
crime

CAPITAL
investment
CAPITAL
punishment
CAPITAL
crime

TYPE CRIME

In this stack of lowercase and capital letters, the spaces between lines appear uneven because caps are tall but have no descenders.

ADJUSTED LEADING

The leading has been fine-tuned by selectively shifting the baselines of the small capitals to make the space between lines look even.

PSEUDO SMALL CAPS are shrunken versions of FULL-SIZE CAPS.

TYPE CRIME

PSEUDO SMALL CAPS

Helvetica was never meant to include small caps. These automatically generated characters look puny and starved; they are an abomination against nature.

TRUE SMALL CAPS integrate PEACEFULLY with lowercase letters.

SMALL CAPS, SCALA PRO

Only use small caps when they are officially included with the type family. When working with OpenType fonts (labeled Pro), access small caps in InDesign via the Character Options>OpenType menu. Older formats list small caps as a separate file in the Type>Font menu.

☂

Tasty Vagabonds

The two camps of the burgeoning food-truck phenomenon: stable and nomadic.

BY AILEEN GALLAGHER

TRUCKS THAT ROVE

CUPCAKE STOP
The inevitable cupcakes-only truck rolled out in May. *twitter. com/cupcakestop.*

TREATS TRUCK
Cookies, crispy treats,

NEW YORK MAGAZINE
Design: Chris Dixon, 2009. *This page detail mixes serif types from the Miller family (including true Small Caps) with the sans-serif family Verlag.*

Capitals in Use

AMUSEMENT MAGAZINE Design: Alice Litscher, 2009. This French culture magazine employs a startling mix of tightly leaded Didot capitals in roman and italic. Running text is set in Glypha.

Mixing Typefaces

Combining typefaces is like making a salad. Start with a small number of elements representing different colors, tastes, and textures. Strive for contrast rather than harmony, looking for emphatic differences rather than mushy transitions. Give each ingredient a role to play: sweet tomatoes, crunchy cucumbers, and the pungent shock of an occasional anchovy. When mixing typefaces on the same line, designers usually adjust the point size so that the x-heights align. When placing typefaces on separate lines, it often makes sense to create contrast in scale as well as style or weight. Try mixing big, light type with small, dark type for a criss-cross of contrasting flavors and textures.

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TYPE CRIME: WHO'S ACCOUNTABLE FOR THIS?
A slightly squeezed variant of the primary font has been used to make the second line fit better (as if we wouldn't notice). Yet another weight appears on the bottom line.

Creamy and **Extra Crunchy** | *Differences within a **single family***

Sweet Child of **MINE** | *Differences within a* **SUPERFAMILY**

Noodles with Potato Sauce | *Bland and blander*

TYPE CRIME
These typefaces are from the same family, but they are too close in weight to mix well.

MULTIPLE-FAMILY MIXES

Jack Sprat and his **voluptuous wife** | *Two-way* **contrast**

Sweet, SOUR, and **hot** | THREE-*way* **contrast**

Mr. Potatohead and Mrs. Pearbutt | *Too close for comfort*

TYPE CRIME
These two type styles are too similar to provide a counterpoint to each other.

Mixing Typefaces: The Small Print

GLYPHA THIN, *designed by Adrian Frutiger, 1979. The large scale of the letters is counterbalanced by the fine line of the stroke.*

MILLER SMALL CAPS, *designed by Matthew Carter with Jonathan Hoefler and Tobias Frere-Jones, 1997–2000. Known as a Scotch Roman typeface, it has crisp serifs and strong contrast between thick and thin.*

EGYPTIAN BOLD CONDENSED, *a Linotype font based on a typeface from 1820. This quirky, chunky face has been used intermittently at New York Magazine since the publication was first designed by Milton Glaser in the 1970s. Here, the ultra-black type set at a relatively small size makes an incisive bite in the page.*

VERLAG, *designed by Jonathan Hoefler, 1996. Originally commissioned by Abbott Miller for exclusive use by the Guggenheim Museum, Verlag has become a widely used general-purpose typeface. Its approachable geometric forms are based on Frank Lloyd Wright's lettering for the facade of the Guggenheim.*

The Word

EDITED BY EMMA PEARSE

EVENTS

BENOIT DENIZET-LEWIS
The Powerhouse Arena, 37 Main St., nr. Water St., Dumbo (718-666-3049)
The writer from *The New York Times Magazine* reads from *American Voyeur: Dispatches From the Far Reaches of Modern Life*, a collection of his analytical reportage on everything from pro-life summer camps to the clothing company Abercrombie & Fitch; 1/13 at 7.

SOUTHERN WRITERS READING SERIES
Happy Ending Lounge, 302 Broome St., nr. Forsyth St. (212-334-9676)
An open mike for writers from below the Mason-Dixon line, where they'll read and discuss (and drink) all things southern; 1/13 at 8.

SUZE ORMAN
Barnes & Noble, 33 E. 17th St., nr. Broadway (212-253-0810)
The high priestess of financial invincibility presents her latest, *Women and Money: Owning the Power to Control Your Destiny*; 1/14 at 7.

MARY JO BANG
McNally Jackson, 52 Prince St., nr. Mulberry St. (212-274-1160)
Two poets in one room: Susan Wheeler hosts a discussion with the spectacularly named National Book Critics Circle Award winner, whose latest collection is titled *The Bride of E*; 1/14 at 7.

JOYCE CAROL OATES AND ELAINE SHOWALTER
92nd St. Y, 1395 Lexington Ave. (212-415-5500)
What two better authorities to discuss women and writing on the occasion of the publication of Showalter's *A Jury of Her Peers*, a history of American women writers from 1650 to 2000; 1/17 at 11 a.m.

PATTI SMITH
Barnes & Noble, 33 E. 17th St., nr. Broadway (212-253-0810)
The poet queen of punk reads from her book *Just Kids: From Brooklyn to the Chelsea Hotel, a Life of Art and Friendship*, about the fabulous, rocky friendship with Robert Mapplethorpe; 1/19 at 7. Smith will also appear with the playwright Sam Shepard on January 21 at 8 p.m. at 92nd St. Y, 1395 Lexington Ave. (212-415-5500).

COUNTESS LUANN DE LESSEPS
Borders, 10 Columbus Circle, nr. Eighth Ave. (212-823-9775)
The Real Housewife of New York, who says that "class is a state of mind," appears in the glamorous flesh to share her intimate knowledge of sophisticated living; 1/21 at 7.

IN THE FLESH
Happy Ending Lounge, 302 Broome St., nr. Forsyth St. (212-334-9676)

THE WORD: NEW YORK MAGAZINE Design: Chris Dixon, 2010. This content-intensive page detail mixes four different type families from various points in history, ranging from the early advertising face Egyptian Bold Condensed to the functional contemporary sans Verlag. These diverse ingredients are mixed here at different scales to create typographic tension and contrast.

Numerals

Lining numerals take up uniform widths of space, enabling the numbers to line up when tabulated in columns. They were introduced around the turn of the twentieth century to meet the needs of modern business. Lining numerals are the same height as capital letters, so they sometimes look big and bulky when appearing in running text.

Non-lining numerals, also called *text* or *old style* numerals, have ascenders and descenders, like lowercase letters. Non-lining numerals returned to favor in the 1990s, valued for their idiosyncratic appearance and their traditional typographic attitude. Like letterforms, old style numerals are proportional; each one has its own set width.

DOWNLOAD HI-RES PDF: Lining and Non-Lining Numerals in Context

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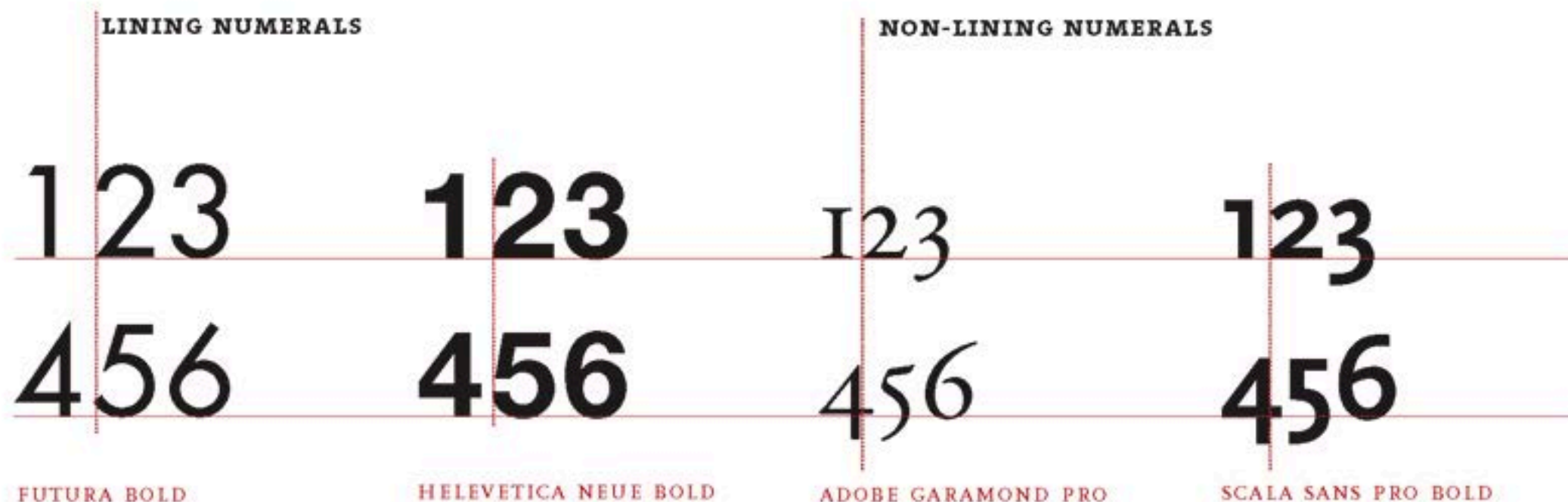
DOWNLOAD HI-RES PDF: Lining and Non-Lining Numerals in Context

LINING NUMERALS   **NON-LINING NUMERALS**

123   123   123   123
456   456   456   456

FUTURA BOLD   HELEVETICA NEUE BOLD   ADOBE GARAMOND PRO   SCALA SANS PRO BOLD

TEXT SET WITH LINING NUMERALS

What is the cost of *War and Peace*? The cover price of the Modern Library Classics paperback edition is $15.00, discounted 32% by Amazon to $10.50. But what about the human cost in terms of hours squandered reading a super-sized work of literary fiction? If you can read 400 words per minute, double the average, it will take you 1,476 minutes (24.6 hours) to read *War and Peace*. Devoting just four hours per day to the task, you could finish the work in a little over six days. If you earn $7.25 per hour (minimum wage in the U.S.), the cost of reading *War and Peace* will be $184.50 (€130.4716, £11.9391, or ¥17676.299).

ADOBE GARAMOND PRO *includes both lining and non-lining numerals, allowing designers to choose a style in response to the circumstances of the project. The lining numerals appear large, because they have the height of capital letters.*

TEXT SET WITH NON-LINING NUMERALS

What is the cost of *War and Peace*? The cover price of the Modern Library Classics paperback edition is $15.00, discounted 32% by Amazon to $10.50. But what about the human cost in terms of hours squandered reading a super-sized work of literary fiction? If you can read 400 words per minute, double the average, it will take you 1,476 minutes (24.6 hours) to read *War and Peace*. Devoting just four hours per day to the task, you could finish the work in a little over six days. If you earn $7.25 per hour (minimum wage in the U.S.), the cost of reading *War and Peace* will be $184.50 (€130.4716, £11.9391, or ¥17676.299).

Non-lining numerals integrate visually with the text. Different math and currency symbols are designed to match the different numeral styles. Smaller currency symbols look better with non-lining numerals.

HLV Helvetica ... dd 3009 63.3 +0.35

HOBO Hobo ... dd 5981 25.2 +0.79

HTXT HoeflerText .5e 1.3 dd 4548 93.7 +0.99

INTR Interstate .32 2.1 dd 10127 19.3 +1.86

JNSN Janson ... 17 8065 63.2 +1.11

KIS KisJanson ... dd 4641 80.9 -0.29

KSMK FFKosmik ... 20 510 26.3 +0.92

123

RETINA, designed by Tobias Frere-Jones, 2000, was created for the extreme typographic conditions of the Wall Street Journal's financial pages. The numerals are designed to line up into columns. The different weights of Retina have matching set widths, allowing the newspaper to mix weights while maintaining perfectly aligned columns. The notched forms (called ink traps) prevent ink from filling in the letterforms when printed at tiny sizes.

1892 ✳ January ✳ 1892

SUNDAY.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
1st Quarter 6TH	Full Moon 13TH	Last Quarter 21ST	New Moon 29TH			
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24/31	25	26	27	28	29	30

K

MONTHLY CALENDAR, 1892 The charming numerals in this calendar don't line up into neat columns, because they have varied set widths. They would not be suitable for setting modern financial data.

Punctuation

A well-designed comma carries the essence of the typeface down to its delicious details. Helvetica's comma is a chunky square mounted to a jaunty curve, while Bodoni's is a voluptuous, thin-stemmed orb. Designers and editors need to learn various typographic conventions in addition to mastering the grammatical rules of punctuation. A pandemic error is the use of straight prime or hatch marks (often called *dumb quotes*) in place of apostrophes and quotation marks (also known as *curly quotes, typographer's quotes, or smart quotes*). Double and single quotation marks are represented with four distinct characters, each accessed with a different keystroke combination. Know thy keystrokes! It usually falls to the designer to purge the client's manuscript of spurious punctuation.

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{["",.-;:'']}   {["",,•;:'']}

HELVETICA NEUE BOLD   BODONI BOLD

COMMONLY ABUSED PUNCTUATION MARKS

5'2" eyes of blue

PRIME OR HATCH MARKS INDICATE INCHES AND FEET

It's a dog's life.

APOSTROPHES SIGNAL CONTRACTION
OR POSSESSION

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

QUOTATION MARKS SET OFF DIALOGUE

"The thoughtless overuse" of quotation marks is a disgrace upon literary style—and on typographic style as well.

TYPE CRIME
Quotation marks carve out chunks of white space from the edge of the text.

See APPENDIX for more punctuation blunders.

"Hanging punctuation" prevents quotations and other marks from taking a bite out of the crisp left edge of a text block.

HANGING QUOTATION MARKS
Make a clean edge by pushing the quotation marks into the margin.

NERD ALERT: To create hanging punctuation in InDesign, insert a word space before the quotation mark. Pressing the option key, use the left arrow key to back the quotation mark into the margin. You can also use the Optical Margin Alignment or Indent to Here tools.

Punctuation Crimes
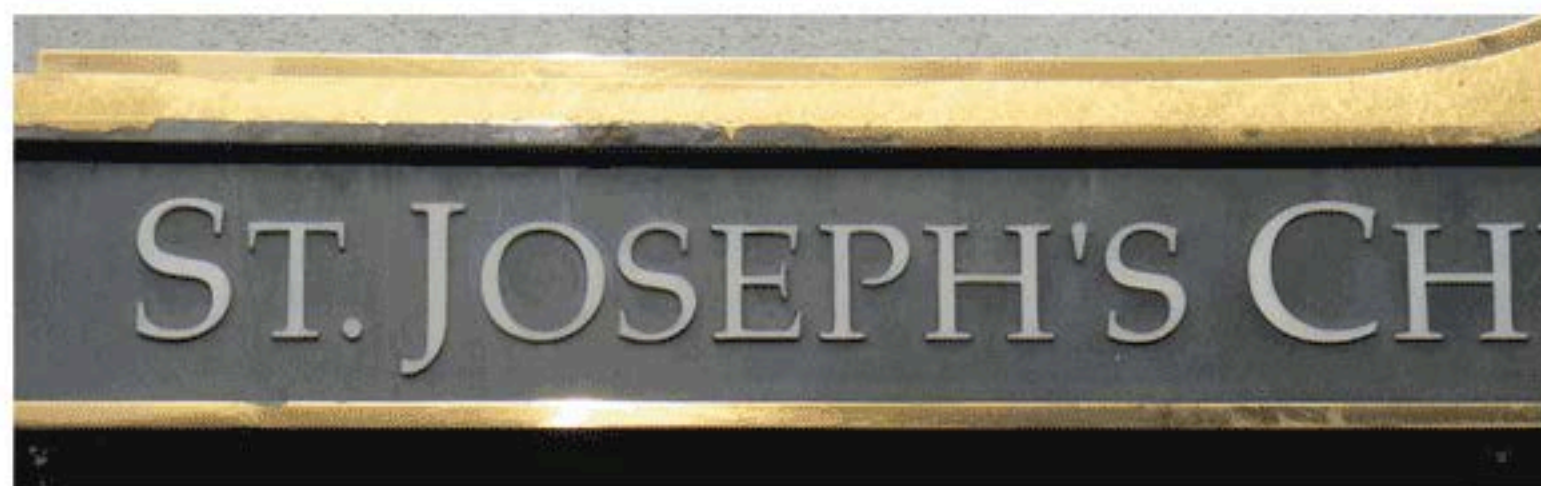
TYPE CRIMES: NEW YORK CITY TOUR City streets have become a dangerous place. Millions of dollars a year are spent producing commercial signs that are fraught with typographic misdoings. While some of these signs are cheaply made over-the-counter products, others were designed for prominent businesses and institutions. There is no excuse for such gross negligence.

6" DEEP DISH PIZZA

GETTIN' IT WRONG The correct use of hatch marks is to indicate inches and feet. Alas, this pizza is the hapless victim of a misplaced keystroke. In InDesign or Illustrator, use the Glyphs palette to find hatch marks when you need them.

Punctuation for Typographers

Writers or clients often supply manuscripts that employ incorrect dashes or faulty word spacing. Consult a definitive work such as *The Chicago Manual of Style* for a complete guide to punctuation. The following rules are especially pertinent for designers.

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.

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 mid-dle of a line when the typesetter has inserted a "hard" hyphen instead of a discretionary one.

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."). Prime or 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.

MAC OS KEYSTROKES *These keystrokes listed below are commonly used in word processing, page layout, and illustration software. Some fonts do not include a full range of special characters.*

	DASHES	KEYSTROKES
—	em dash	shift-option-hyphen
–	en dash	option-hyphen
-	standard hyphen	(hyphen key)
-	discretionary hyphen	command-hyphen

	PUNCTUATION	
'	single open quote	option-]
'	single close quote	shift-option-]
"	double open quote	option-[
"	double close quote	shift-option-[
...	ellipsis	option-;

|	OTHER MARKS	
( )	en space	option-space bar
†	dagger	option-t
‡	double dagger	shift-option-7
©	copyright symbol	option-g
®	resister symbol	option-r
€	Euro symbol	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

Typeface Design

Fontlab and other applications allow designers to create functional fonts that work seamlessly with standard software programs such as InDesign and Photoshop. The first step in designing a typeface is to define a basic concept. Will the letters be serif or sans serif? Will they be modular or organic? Will you construct them geometrically or base them on handwriting? Will you use them for display or for text? Will you work with historic source material or invent the characters more or less from scratch? The next step is to create drawings. Some designers start with pencil before working digitally, while others build their letterforms directly with fontdesign software.

Begin by drawing a few core letters, such as *o, u, h,* and *n,* building curves, lines, and shapes that will reappear throughout the font. All the letters in a typeface are distinct from each other, yet they share many attributes, such as x-height, line weight, stress, and a common vocabulary of forms and proportions. You can control the spacing of the typeface by adding blank areas next to each character as well as creating kerning pairs that determine the distance between particular characters. Producing a complete typeface is an enormous task. However, for people with a knack for drawing letterforms, the process is hugely rewarding.

Typeface Drawing: Castaways
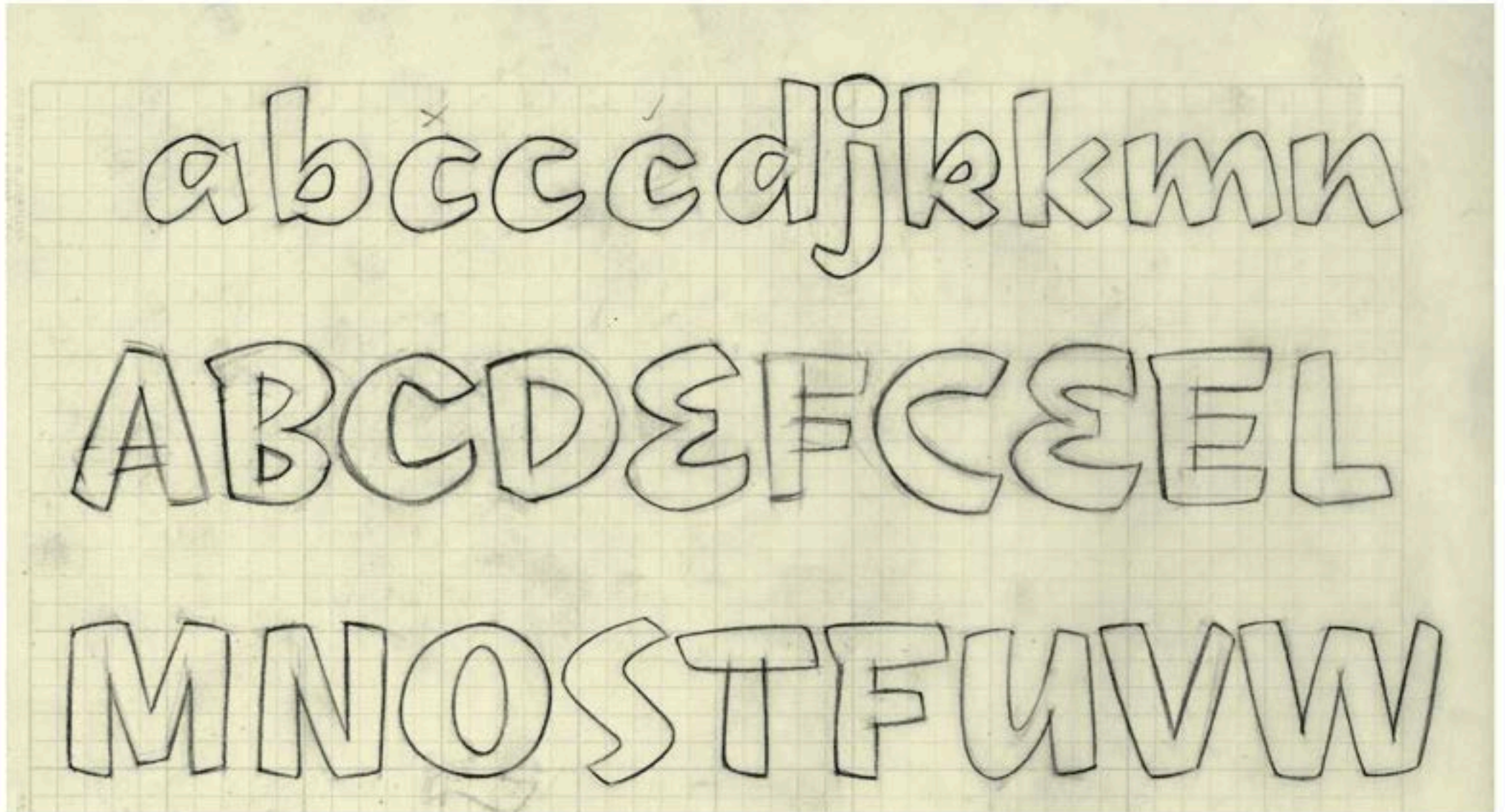
Castaways

CASTAWAYS Drawing and finished type, 2001. Art and type direction: Andy Cruz. Typeface design: Ken Barber/House Industries. Font engineering: Rich Roat. House Industries is a digital type foundry that creates original typefaces inspired by popular culture and design history. Designer Ken Barber makes pencil drawings by hand and then digitizes the outlines. Castaways is from a series of typefaces based on commercial signs from Las Vegas. The shapes of the letters recall the handpainted strokes made by traditional sign painters and lettering artists.

Typeface Proof: Mercury
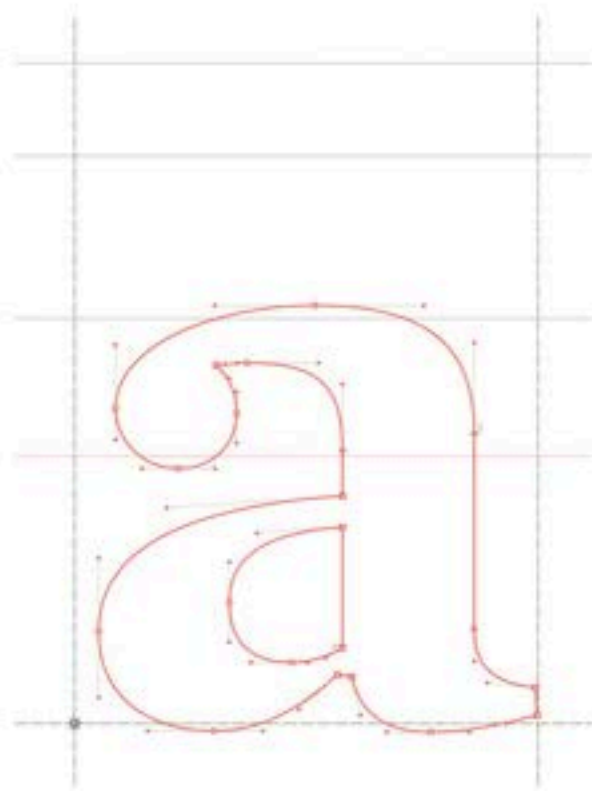
MERCURY BOLD Page proof and screen shot, 2003. Design: Jonathan Hoefler/Hoefler & Frere-Jones. Mercury is a typeface designed for modern newspapers, whose production demands fast, high-volume printing on cheap paper. The typeface's bullet-proof letterforms feature chunky serifs and sturdy upright strokes. The notes marked on the proof below comment on everything from the width or weight of a letter to the size and shape of a serif. Many such proofs are made during the design process. In a digital typeface, each letterform consists of a series of curves and lines controlled by points. In a large type family, different weights and widths can be made automatically by interpolating between extremes such as light and heavy or narrow and wide. The designer then adjusts each variant to ensure legibility and visual consistency.

JM 12/3/3

ÆABCDEF

GHIJKLM

NOŒPQRS

TUVWXYZ

the hairline flare is a little too apparent @ small sizes.

← a little

wide?

→ see how E adjustment affects the F.

a bit

heavy!

? You know, our pangram text has a real shortage of Js appearing in the middle of words. Hm!

heavy, I think, but let's see more text.

thicker ↓

watch RSB

maybe a little narrow!

see note on 8

→ see if you can make the lower counter a bit smaller, and the upper one a bit larger. Subtly, though — this is a very small move.

2 left

This looks PERFECT

aligned? Yes, as in cap R. (well done!)

(I keep thinking the tail should descend further)

RSB tight?

→2

→1

to widen

heavy! not sure...

Thin out a little from the inside

emphasize break a little more: x → x

Project: Letterforms

Create a prototype for a bitmap typeface by designing letters on a grid of squares or a grid of dots. Substitute the curves and diagonals of traditional letterforms with gridded and 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 speaks to the structure of digital technologies, from cash register receipts and LED signs to on-screen font display, showing that a typeface is a system of elements.

Examples of student work from Maryland Institute College of Art

Wendy Neese

Brendon McClean

James Alvarez

Joey Potts

Font Formats

Where do fonts come from, and why are there so many different formats? Some come loaded with your computer's operating system, while others are bundled with software packages. A few of these widely distributed typefaces are of the highest quality, such as Adobe Garamond Pro and Hoefler Text, while others (including Comic Sans, Apple Chancery, and Papyrus) are reviled by design snobs everywhere. If you want to expand your vocabulary beyond this familiar fare, you will need to purchase fonts from digital type foundries. These range from large establishments like Adobe and FontShop, which license thousands of different typefaces, to independent producers that distribute just a few, such as Underware in the Netherlands or Jeremy Tankard Typography in the U.K. You can also learn to make your own fonts as well as find fonts that are distributed for free online. The different font formats reflect technical innovations and business arrangements developed over time. Older font formats are still generally usable on modern operating systems.

£ ∫ ¥ ¼ ½ ¾ É Ë Ì Å

Ã Â Á Ý Ø å ë ð ñ ò þ

ÿ Ą ą ě ę ġ ǵ dž z ž ž

ő Ǵ Ġ į į ĭ † ‡ ☜ ☞

{[(HALF-BAKED?)]}

SCALA, *PostScript/Type 1 font format*

{[(HALF-BAKED?)]}

SCALA PRO, *OpenType font format*

POSTSCRIPT/TYPE 1 was developed for desktop computer systems in the 1980s by Adobe. Type I fonts are output using the PostScript programming language, created for generating high-resolution images on paper or film. A Type 1 font consists of two files: a screen font and a printer font. You must install both files in order to fully use these fonts.

TRUETYPE is a later font format, created by Apple and Microsoft for use with their operating systems. TrueType fonts are easier to install than Type 1 fonts because they consist of a single font file rather than two.

OPENTYPE, a format developed by Adobe, works on multiple platforms. Each file supports up to 65,000 characters, allowing multiple styles and character variations to be contained in a single font file. In a TrueType or Type 1 font, small capitals, alternate ligatures, and other special characters must be contained in separate font files (sometimes labelled "Expert"); in an OpenType font they are part of the main font. These expanded character sets can also include accented letters and other special glyphs needed for typesetting a variety of languages. OpenType fonts with expanded character sets are commonly labeled "Pro." OpenType fonts also automatically adjust the position of hyphens, brackets, and parentheses for letters set in all-capitals.

SMALL CAPS AND OLD-STYLE NUMERALS, WHERE ARE YOU HIDING?

NERD ALERT: Access small caps and numerals quickly through the Type>OpenType options menu or other OpenType layout tool in your design software. Small caps will not appear as a style variant in the Font menu, because OpenType treats them as part of the main font. With any font, you can view all the special characters through the Type and Tables>Glyphs menu. You will find many unexpected elements, including swashes, ligatures, ornaments, fractions, and more. Double click a glyph to insert it into to your text frame.

Some Commonly Abused Terms

TYPEFACE OR FONT?

A typeface is the design of the letterforms; a font is the delivery mechanism. In metal type, the design is embodied in the punches from which molds are made. A font consists of the cast metal printing types. In digital systems, the typeface is the visual design, while the font is the software that allows you to install, access, and output the design. A single typeface might be available in several font formats. In part because the design of digital typefaces and the production of fonts are so fluidly linked today, most people use the terms interchangeably. Type nerds insist, however, on using them precisely.

CHARACTER OR GLYPH?

Type designers distinguish characters from glyphs in order to comply with Unicode, an international system for identifying all of the world's recognized writing systems. Only a symbol with a unique function is considered a character and is thus assigned a code point in Unicode. A single character, such as a lowercase a, can be embodied by several different glyphs (a, a, a). Each glyph is a specific expression of a given character.

Roman or roman?

The Roman Empire is a proper noun and thus is capitalized, but we identify roman letterforms, like italic ones, in lowercase. The name of the Latin alphabet is capitalized.