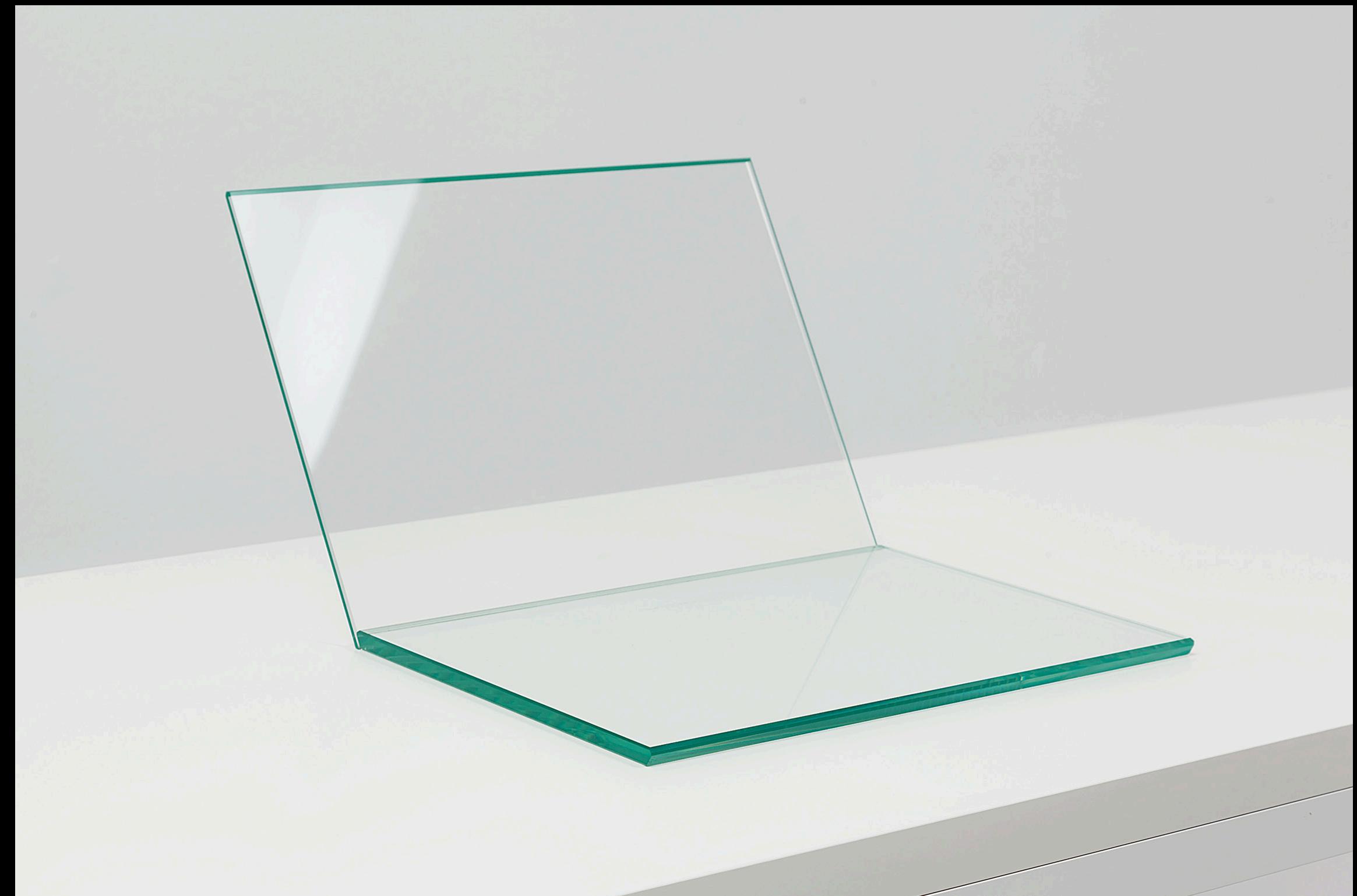


Class 3:

A Crystal Goblet



GlassPhone, 2014
GlassBook, 2013
Tilman Hornig

Skipping History (Again)

- Moveable type
- Dot matrix
- IBM Selectric typewriter
- Phototypesetting
- ...
- Sketchpad
- PostScript



Xerox Alto, 1973
Xerox PARC

Welcome to Smalltalk
5.5k XM November 24

Top View

UserView workspace

XEROX - Learning Research Group

user screenextent: 640@808 tab: 0@0.

Classes

SystemOrganization
'Kernel Classes'
'Numbers'
'Basic Data Structures'
'Sets and Dictionaries'
'Graphical Objects'
'Text Objects'
'Windows'
'Panes and Menus'
'Files'

Browse Window
Code Window
ClassDefinition
ClassOrganization
File
Initialization
Scheduler
Editing
Image
Strike format

help

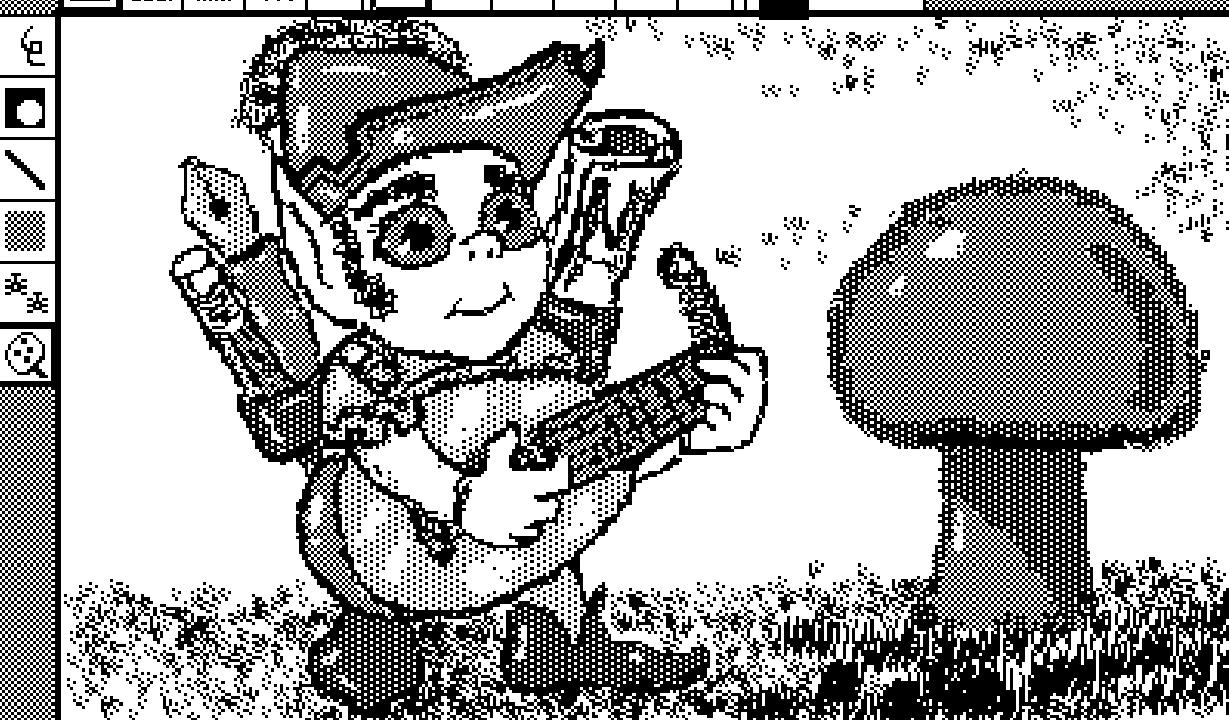
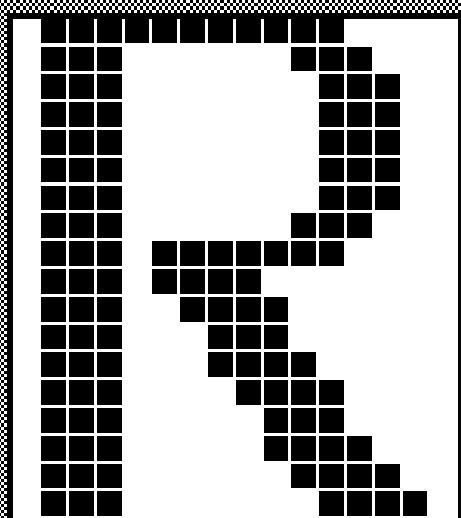
[
** sysFontWindow UserView workspace Walk dictionary, and bound to the font window displayed on the screen. You can change the font, style and size of text anywhere in a very easy way to play with.

Regular **bold italic Underlined**
Bold-italic Bold-underlined italic-Underlined
Bold-italic-underlined

Cream10 Cream12
TimesRoman9 TimesRoman10 TimesRoman12
Helvetica18

** to create a new

yourfont ← FontV
max: 177 as
#from edit menu



SET USE block draw line BITS PENS STAMP

1 2 4 8 16 32

command central

quit then 'dmr.boot.'
notes mdcfs ev @erase.
usersetup.ft usereditor.ft
usertextwindow.ft userfileseg.ft
window.ft format.ft diana.ft
blits.ft commander.ft tiles.ft
filin 'press.ft. dsff. & pi+pressfile
'jumbo.press. pf bitmap
STDISPLAY rectangle. pf close.
dsca
sched + figwindow 'coreuse'
sch

dina.ft

usecat.ft

usersetup.ft

userpic.ft

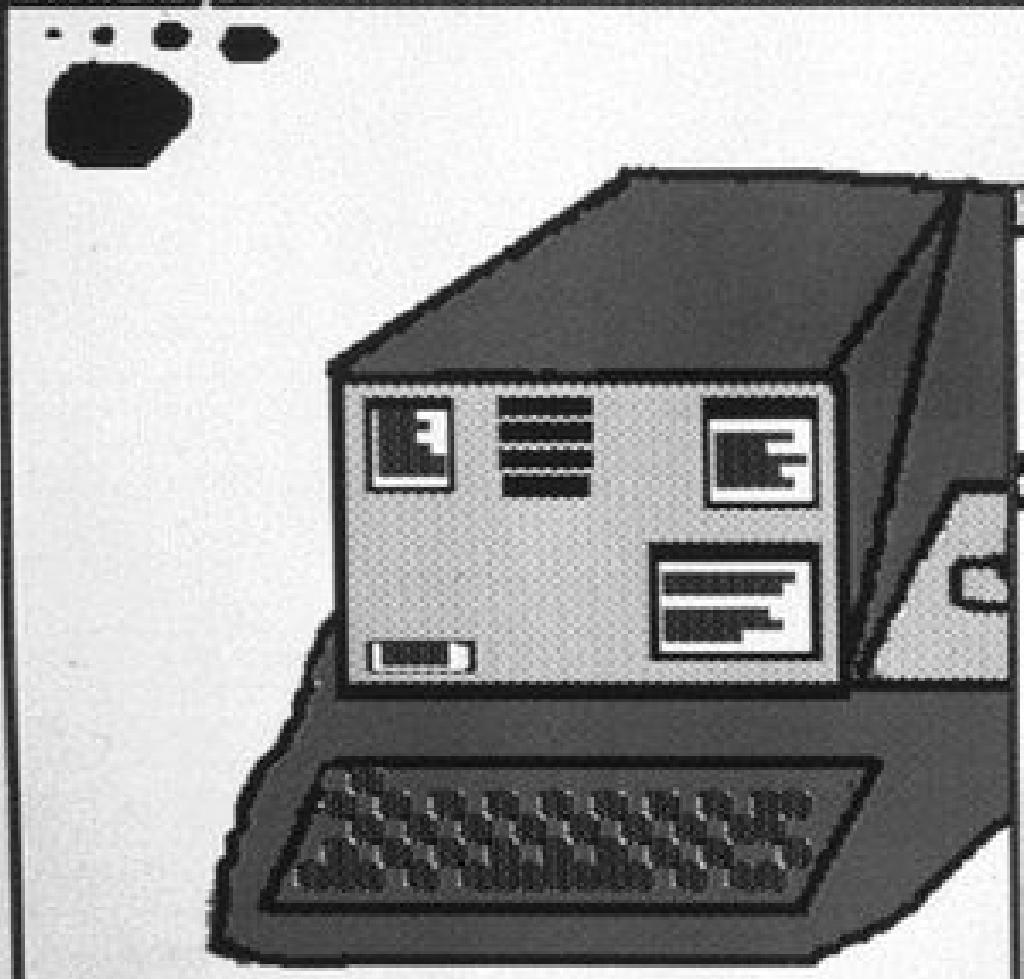
format.ft

userpicools.ft

notes

avoid full show for ex,
cut, paste, (...)
auto-cleanup
get Larry's views
Clean windows
para, file, font
fig, pic, clock
debugger, view
write up
boolean exprs
code obj
bootstrap
read run, files
new/init
Glenn's mods
scheduling - interrupts

nettaker.pic



Heading

XEROX
PALO ALTO RESEARCH CENTER
Learning Research Group
November 29, 1978

undo
copy
paste
cut
do it!
(...) open
include

text

To: SMALLTALK Interest

From: Dan Ingalls as scribe

Subject: Message syntax

Filed on: (INGALLS)STInterpreter.Bravo

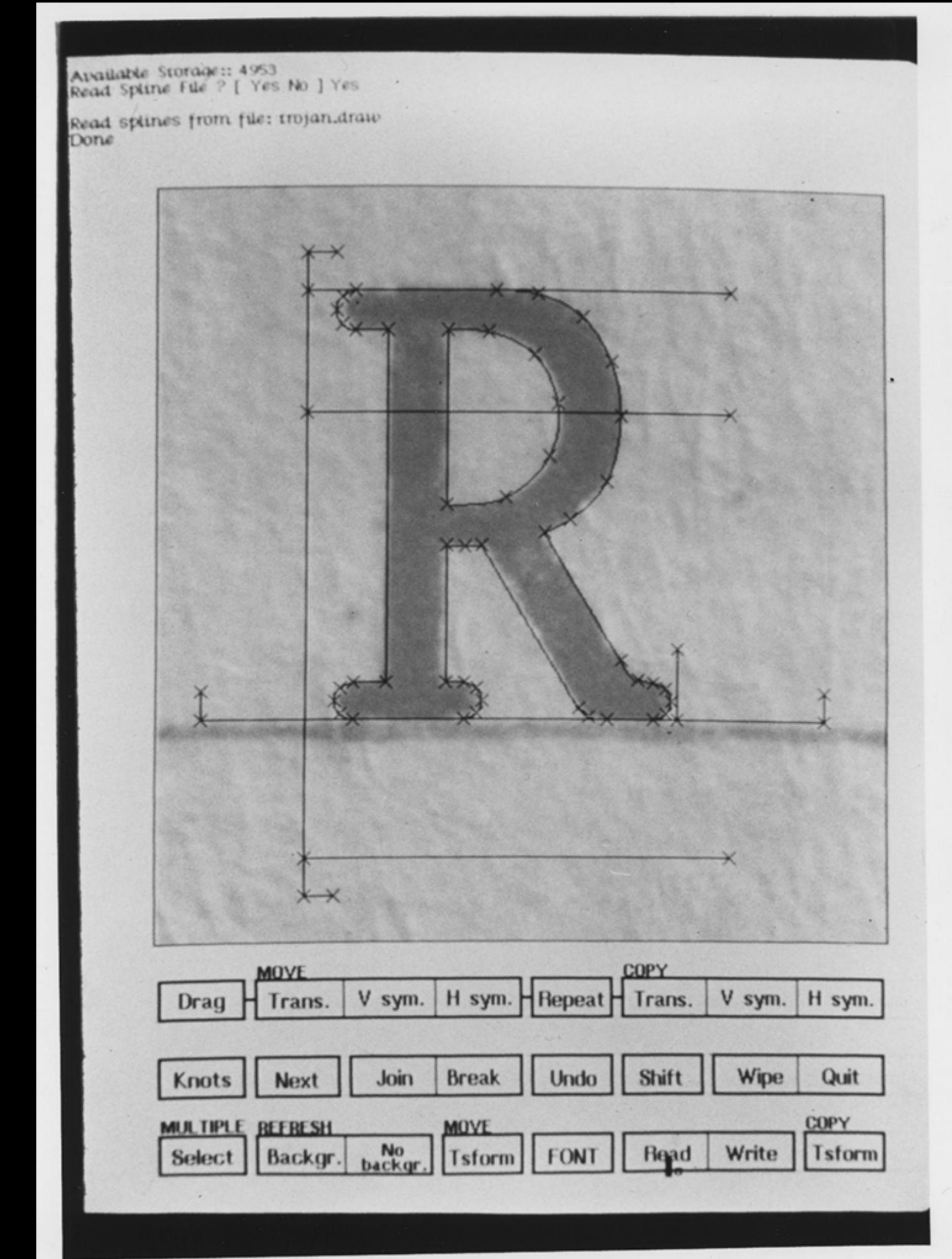
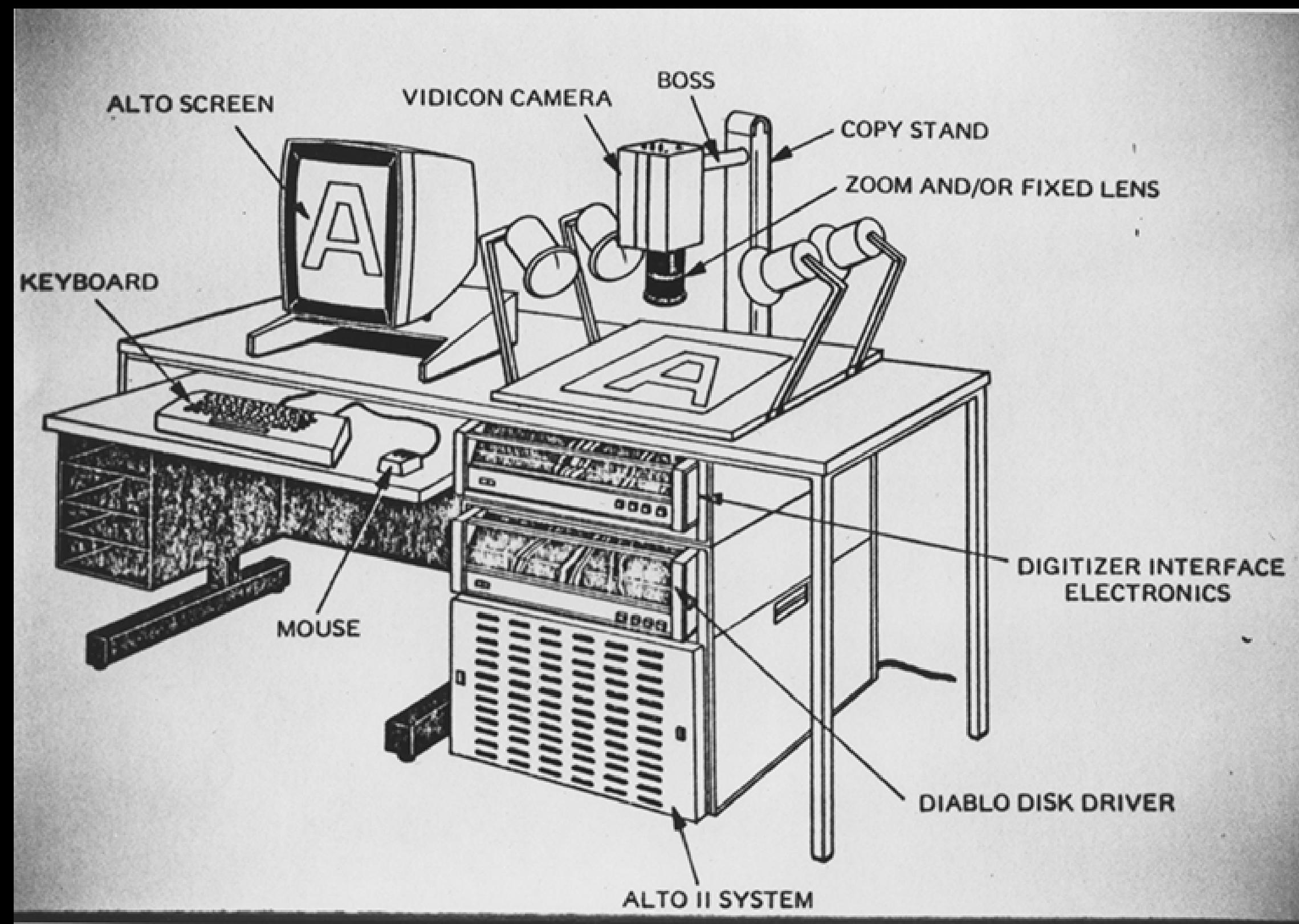
This is a working paper describing the next SMALLTALK system. It is the result of many proposals and discussions among LRG and friends.

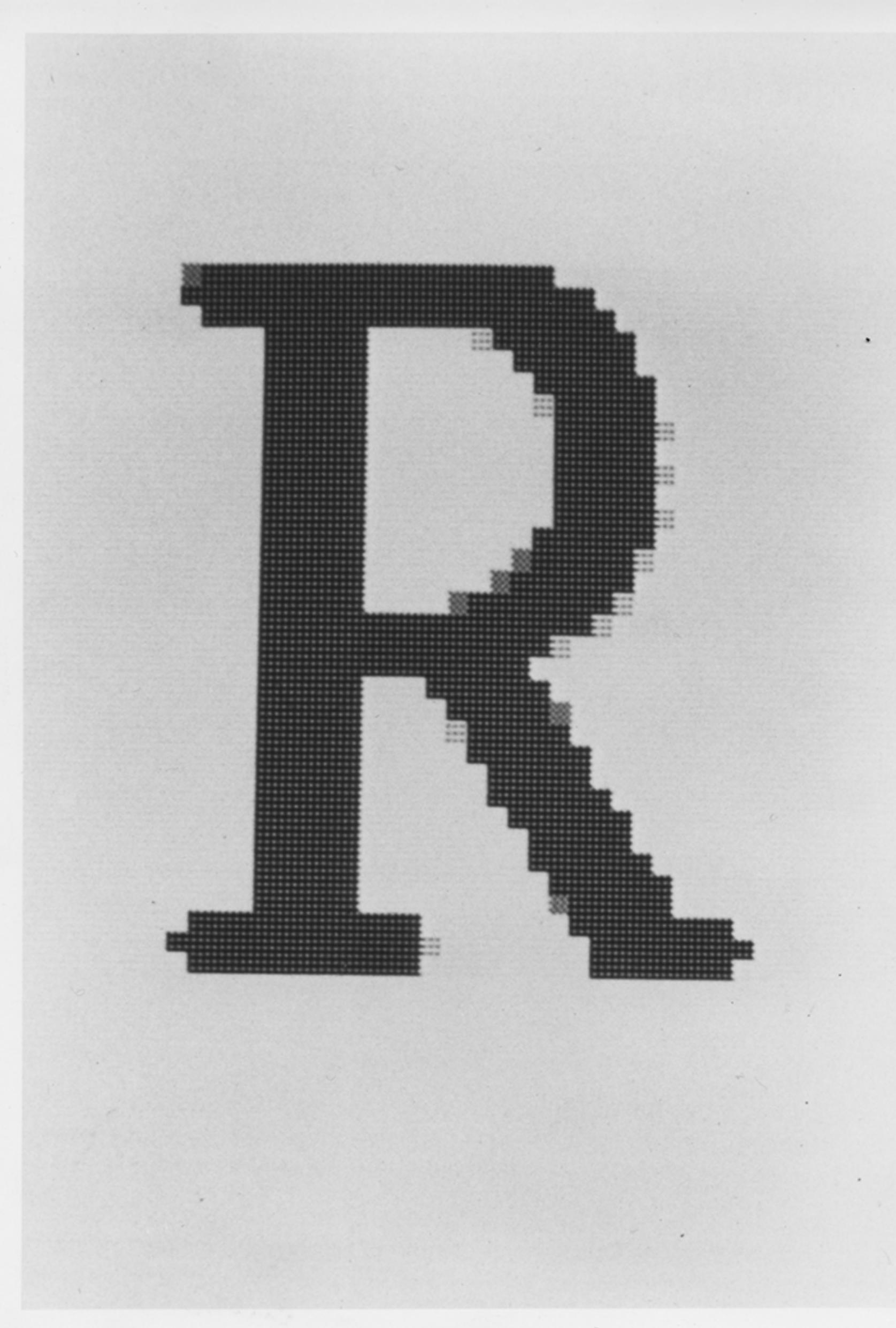
Interpretation

The operation of the bytecode interpreter is very simple. The code consists of sequences such as d_1 , d_2 , d_3 , s_n , or three data bytes followed by a selector byte. Each of the data bytes in turn gets resolved to a full (16-bit) object pointer and pushed onto the stack.

clock

Thursday
February 3, 1977
11:11am





```
READY: Select operand or type command
Last command was LOOK
*{no.perso...computer} {c} 0

Steve Job's Commencement Address
[The Mac] was the first computer with beautiful typography. If I
had never dropped in on that single course in college, the Mac would
never had multiple typefaces or proportionally spaced fonts. And since
Windows just copied the Mac, it's likely that no personal computer
would have had them. If I had never dropped out, I would have never
dropped in on this calligraphy class, and personal computers might not
have the wonderful typography that they do. →
```

Oakland

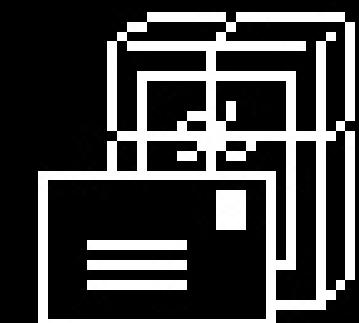
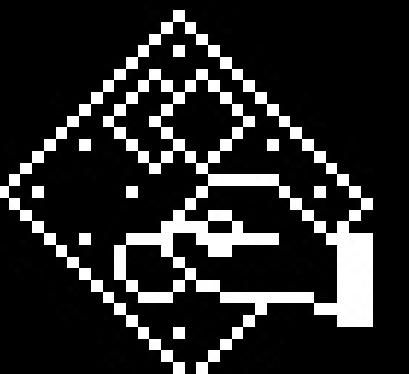
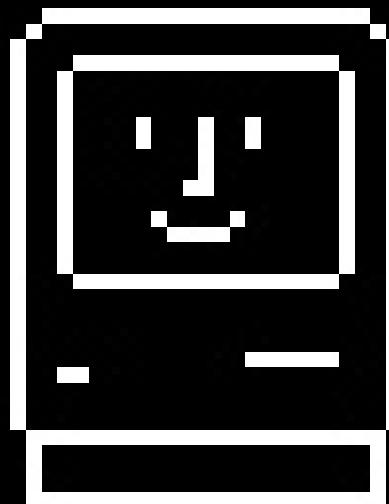
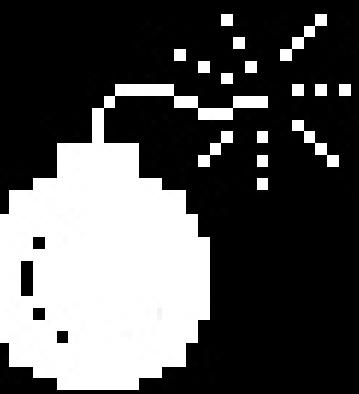
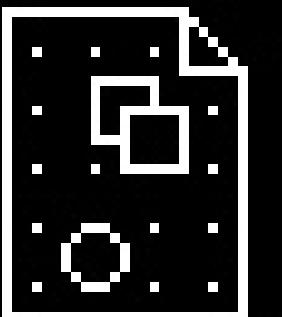
Oakland, Ten

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj
Kk Ll Mm Nn Oo Pp Qq
Rr Ss Tt Uu Vv Ww Xx Yy Zz
1 2 3 4 5 6 7 8 9 0



Chicago, 1984
Susan Kare

The quick brown
fox jumps over
a lazy dog.



FF Beowolf

E E E E

E E E E

E E E E

FF Beowolf, 1990

Just Van Rossum and Erik Van Blokland

Verdana

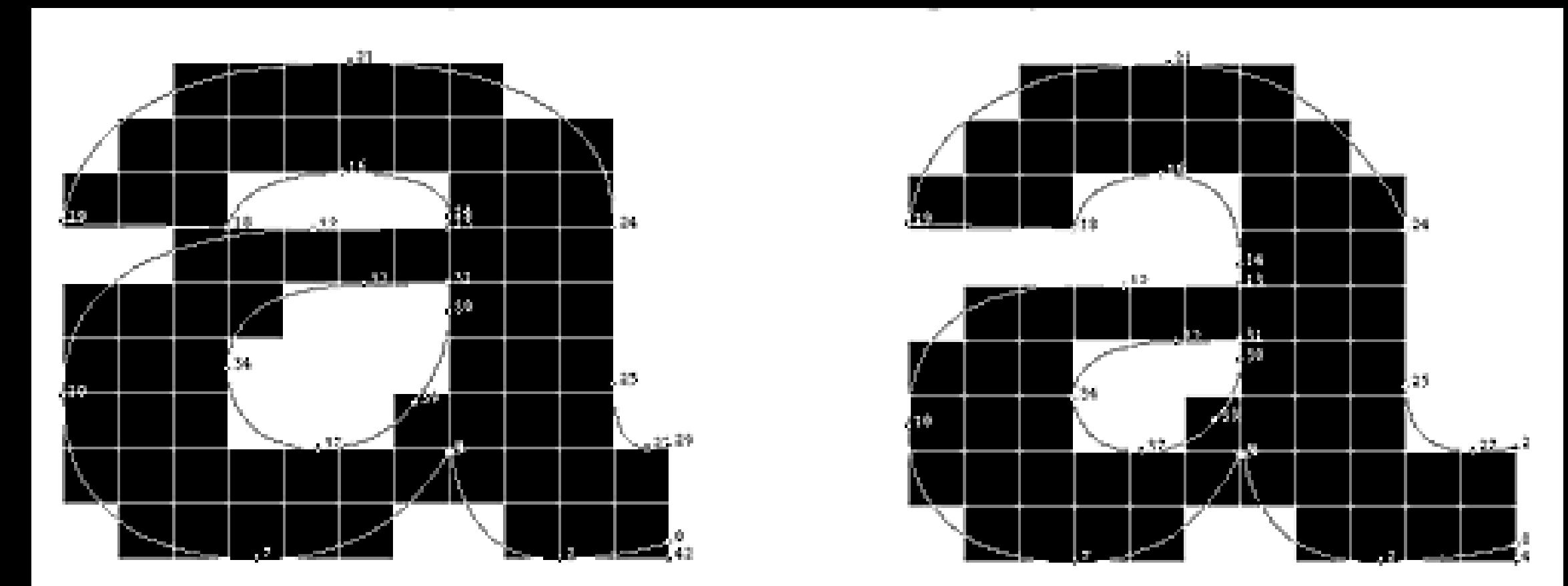
Verdana, Regular

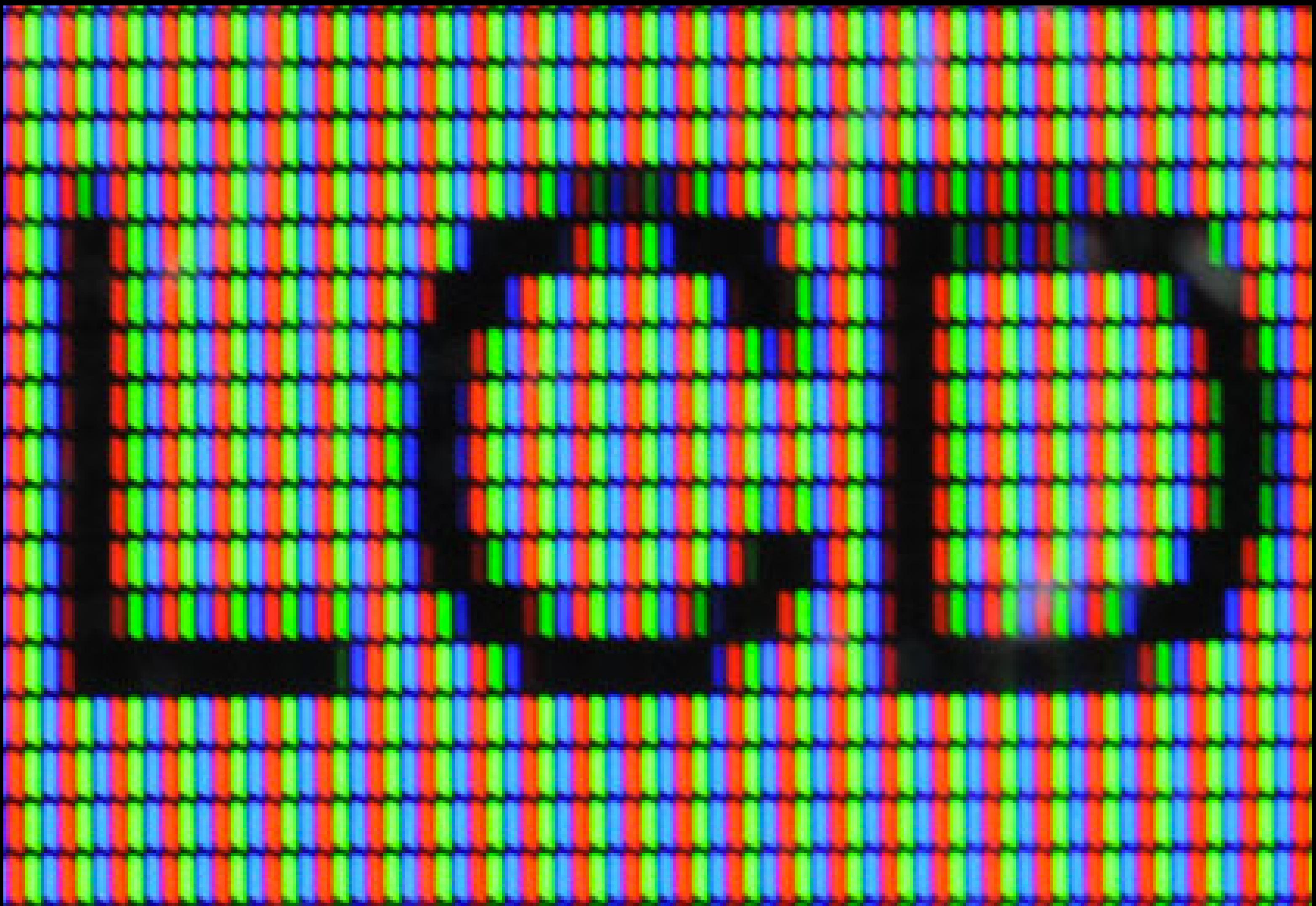
Aa Bb Cc Dd Ee Ff Gg
Hh Ii Jj Kk Ll Mm
Nn Oo Pp Qq Rr Ss Tt
Uu Vv Ww Xx Yy Zz
1 2 3 4 5 6 7 8 9 0

Font Hinting

Font hinting is the use of mathematical instructions to adjust the display of an outline font so that it lines up with a rasterized grid.

At low screen resolutions, hinting is critical for producing clear, legible text. It can be accompanied by antialiasing and (on liquid crystal displays) subpixel rendering for further clarity.





abcf
gop AO *abcf
gop*
abcf
gop AO *abcf
gop*

**abcf
gop**

**abcf
gop**

**維基
百科**

維基百科國際

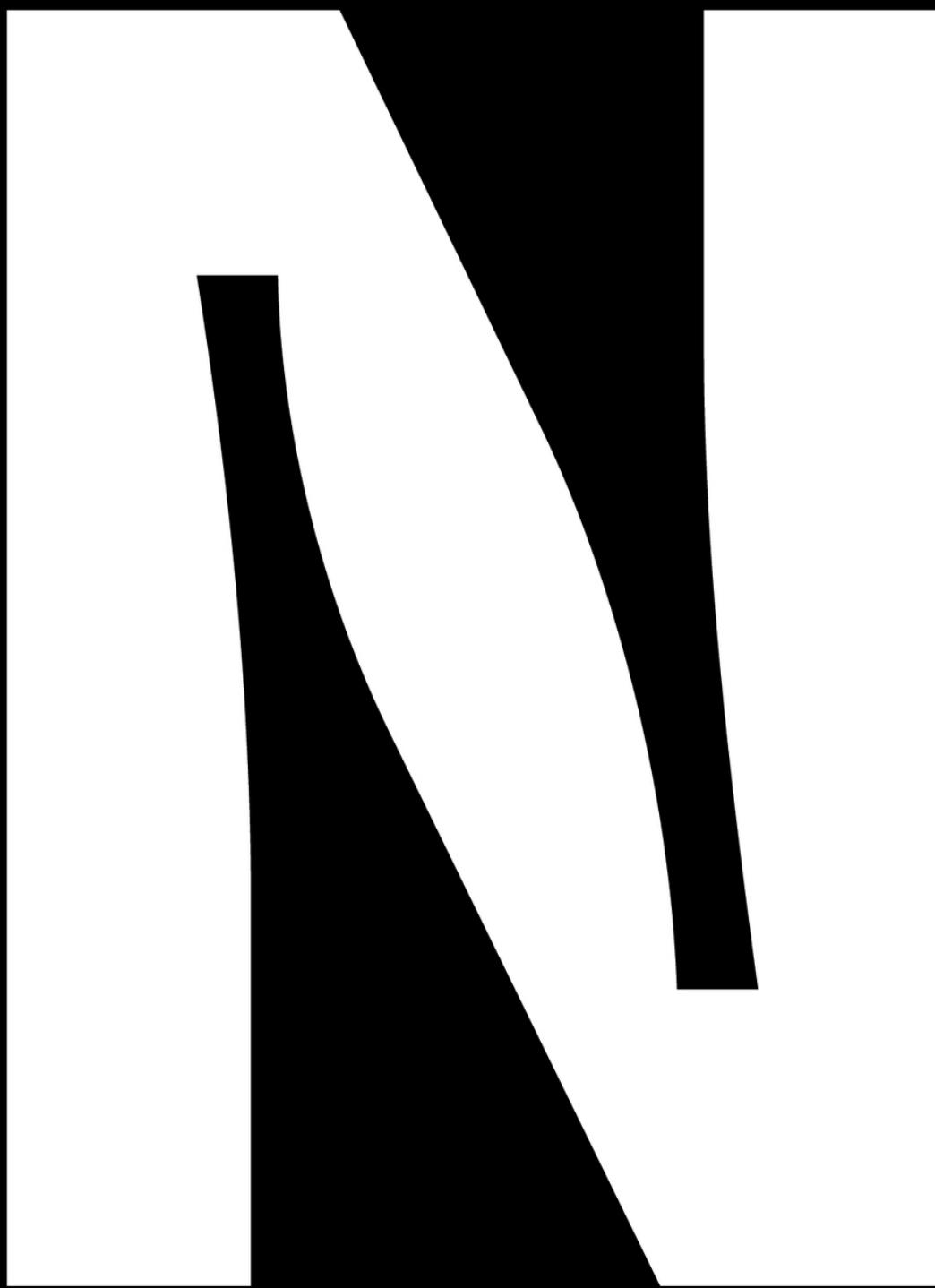
**維基
百科**

維基百科國際

維基百科
維基百科國際
維基百科
維基百科國際



Bell Centennial

A large, bold, black outline of the letter 'N' on a white background. The letter is oriented vertically, with its top stroke pointing upwards and to the right. The outline is thick and has a clean, sans-serif appearance.

Bell Centennial, 1978
Matthew Carter

The World Wide Web project +

Not Secure | info.cern.ch/hypertext/WWW/TheProject.html

popup Reading Remove CSS Scatter Everything Submit a New Issue... Present to Everyone

World Wide Web

The WorldWideWeb (W3) is a wide-area [hypermedia](#) information retrieval initiative aiming to give universal access to a large universe of documents.

Everything there is online about W3 is linked directly or indirectly to this document, including an [executive summary](#) of the project, [Mailing lists](#) , [Policy](#) , November's [W3 news](#) , [Frequently Asked Questions](#) .

[What's out there?](#)
Pointers to the world's online information, [subjects](#) , [W3 servers](#), etc.

[Help](#)
on the browser you are using

[Software Products](#)
A list of W3 project components and their current state. (e.g. [Line Mode](#) ,[X11 Viola](#) ,[NeXTStep](#) ,[Servers](#) ,[Tools](#) ,[Mail robot](#) ,[Library](#))

[Technical](#)
Details of protocols, formats, program internals etc

[Bibliography](#)
Paper documentation on W3 and references.

[People](#)
A list of some people involved in the project.

[History](#)
A summary of the history of the project.

[How can I help ?](#)
If you would like to support the web..

[Getting code](#)
Getting the code by [anonymous FTP](#) , etc.

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

Handgloves

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

Handgloves

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

Handgloves

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

Handgloves

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
H a n d g l o v e s

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
H a n d g l o v e s

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
H a n d g l o v e s

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
H a n d g l o v e s

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
H a n d g l o v e s

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
H a n d g l o v e s

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
H a n d g l o v e s

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
H a n d g l o v e s

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
H a n d g l o v e s

ABCDEFGHIJKLM
NOPQRSTUVWXYZ
abcdefghijklm
nopqrstuvwxyz
Handgloves

Times New Roman

ABCDEFGHIJKLM
NOPQRSTUVWXYZ
abcdefghijklm
nopqrstuvwxyz
Handgloves

Georgia

ABCDEFGHIJKLM
NOPQRSTUVWXYZ
abcdefghijklm
nopqrstuvwxyz
Handgloves

Arial

ABCDEFGHIJKLM
NOPQRSTUVWXYZ
abcdefghijklm
nopqrstuvwxyz
Handgloves

Verdana

ABCDEFGHIJKLM
NOPQRSTUVWXYZ
abcdefghijklm
nopqrstuvwxyz
Handgloves

Helvetica

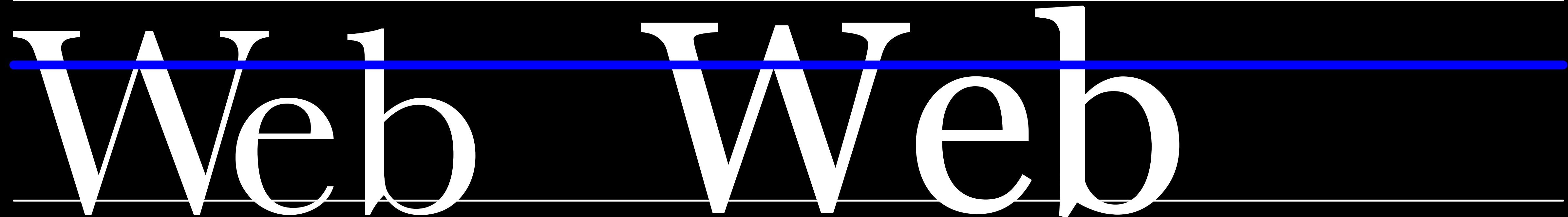
ABCDEFGHIJKLM
NOPQRSTUVWXYZ
abcdefghijklm
nopqrstuvwxyz
Handgloves

Trebuchet

What Makes a Good Screen Typeface?

- Context
- Extensibility
- What is “good”?

What Makes a Good Screen Typeface?



The image displays two instances of the word "Web" in white sans-serif font against a black background. A horizontal blue line intersects both words, serving as a reference for the x-height. The first "Web" is positioned below the blue line, indicating a tall x-height. The second "Web" is positioned above the blue line, indicating a short x-height.

→ Tall x-height

What Makes a Good Screen Typeface?

Web Web

- Tall x-height
- Open apertures & large counters

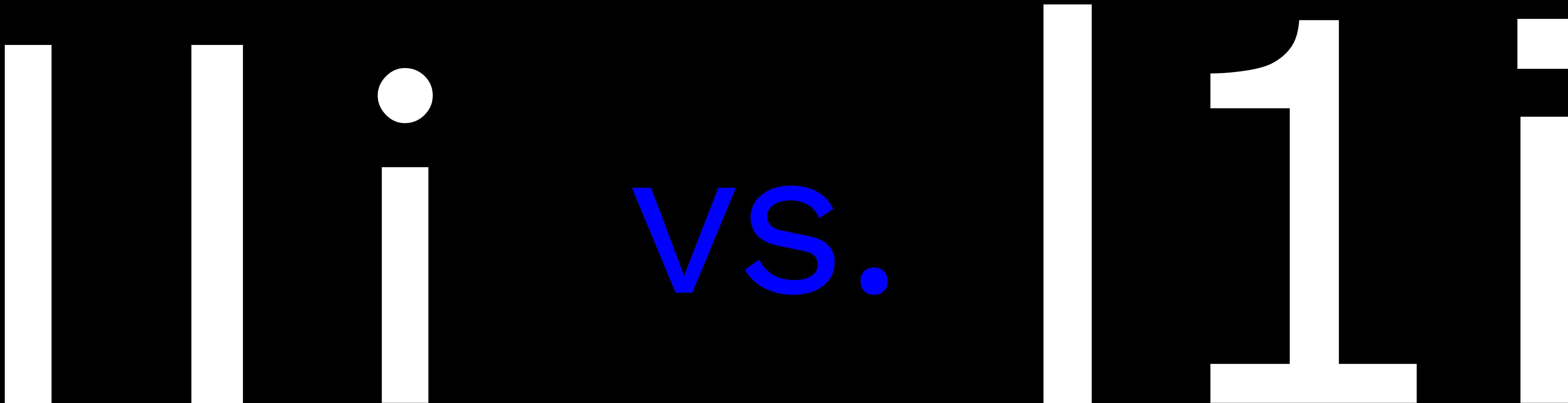
What Makes a Good Screen Typeface?

shapes shapes

→ Letter spacing

What Makes a Good Screen Typeface?

i vs. i

The image shows a comparison between two letterforms. On the left, there is a white 'i' character on a black background. It has a thin vertical stem and a small dot at the top. On the right, there is a similar white 'i' character, but it is rendered in a pixelated or blocky style, with thicker vertical strokes and a larger, more prominent dot at the top.

→ Distinct letterforms

What Makes a Good Screen Typeface?

shean shean

- Robust, unmodulated strokes

Typographic Declarations in CSS

h1	p
h2	blockquote
h3	ol
h4	ul
h5	li
h6	small
	strong
	em

Typographic Declarations in CSS

font-family

font-size

font-style

font-variant

font-weight

line-height

letter-spacing

font

text-align

text-decoration

text-indent

text-justify

text-transform

Typographic Declarations in CSS

font-family

Font Stack

Arial, Verdana, “sans serif”

Typographic Declarations in CSS

font-family
font-size

Metrics

px vs. %

em vs. rem

vw vs. vh

Typographic Declarations in CSS

font-family
font-size
font-style

normal vs. italic

Typographic Declarations in CSS

font-family
font-size
font-style
font-variant

normal vs.
small-caps
(beware)

Typographic Declarations in CSS

normal

bold

bolder

lighter

100–900

font-family
font-size
font-style
font-variant
font-weight

Typographic Declarations in CSS

font-family
font-size
font-style
font-variant
font-weight
line-height

AKA “Leading”

Typographic Declarations in CSS

AKA “tracking”

font-family
font-size
font-style
font-variant
font-weight
line-height
letter-spacing

Typographic Declarations in CSS

All in one rule

font: font-style font-variant font-weight font-size/line-height

font-family
font-size
font-style
font-variant
font-weight
line-height
letter-spacing
font

Typographic Declarations in CSS

left center right

font-family
font-size
font-style
font-variant
font-weight
line-height
letter-spacing
font
text-align

Typographic Declarations in CSS

underline

~~line-through~~

overline

font-family
font-size
font-style
font-variant
font-weight
line-height
letter-spacing
font
text-align
text-decoration

Typographic Declarations in CSS

This seems fairly
self-explanatory,
doesn't it?

font-family
font-size
font-style
font-variant
font-weight
line-height
letter-spacing
font
text-align
text-decoration
text-indent

Typographic Declarations in CSS

UPPERCASE
lowercase
Capitalize

font-family
font-size
font-style
font-variant
font-weight
line-height
letter-spacing
font
text-align
text-decoration
text-indent
text-justify
text-transform

Typographic Declarations in CSS

columns

column-count
column-gap

@font-face

The @font-face CSS at-rule specifies a custom font with which to display text; the font can be loaded from either a remote server or the user's own computer.

```
@font-face {  
    font-family: FontName;  
}
```

```
@font-face {  
    font-family: FontName;  
    src: url('path/filename.eot');  
}
```

```
@font-face {  
    font-family: FontName;  
    src: url('path/filename.eot');  
    src: url('path/filename?#iefix') format('embedded-opentype'),  
        url('path/filename.woff2') format('woff2'),  
        url('path/filename.woff') format('woff'),  
        url('path/filename.ttf') format('truetype');  
}
```

```
@font-face {  
    font-family: FontName;  
    src: url('path/filename.eot');  
    src: url('path/filename?#iefix') format('embedded-opentype'),  
        url('path/filename.woff2') format('woff2'),  
        url('path/filename.woff') format('woff'),  
        url('path/filename.ttf') format('truetype');  
    font-weight: normal;  
    font-style: normal;  
}
```

```
@font-face {  
    font-family: FontName;  
    src: url('path/filename.eot');  
    src: url('path/filename?#iefix') format('embedded-opentype'),  
        url('path/filename.woff2') format('woff2'),  
        url('path/filename.woff') format('woff'),  
        url('path/filename.ttf') format('truetype');  
    font-weight: normal;  
    font-style: normal;  
}  
body {
```

```
    font-family: 'FontName', Helvetica, Arial, sans-serif;  
}
```

Reference

fonts.google.com

typekit.com

fonts.com

typenetwork.com

monotype.com

typography.com/cloud

fontstand.com

webfonter.fontshop.com

typesample.com

github.com/grillitype/web-fonts-guide

typotheque.com

theleagueofmoveabletype.com

usemodify.com

open-foundry.com

v-fonts.com

metaflop.com

copypastecharacter.com

ospublish.constantvzw.org/foundry

Reference

Thinking about our upcoming assignment:

talent.stimuleringsfonds.nl/2016

gt-zirkon.com

gt-eesti.com

offprint.org

vancouverartbookfair.com/2016

otonoveswiss.co.uk

all-in-studio.com

risd.edu/gradshow

googlefonts.github.io/korean

act.mit.edu/cavs

larama.ca

triebwerk.bff.de

elsewhere.space

laurelhalo.com