



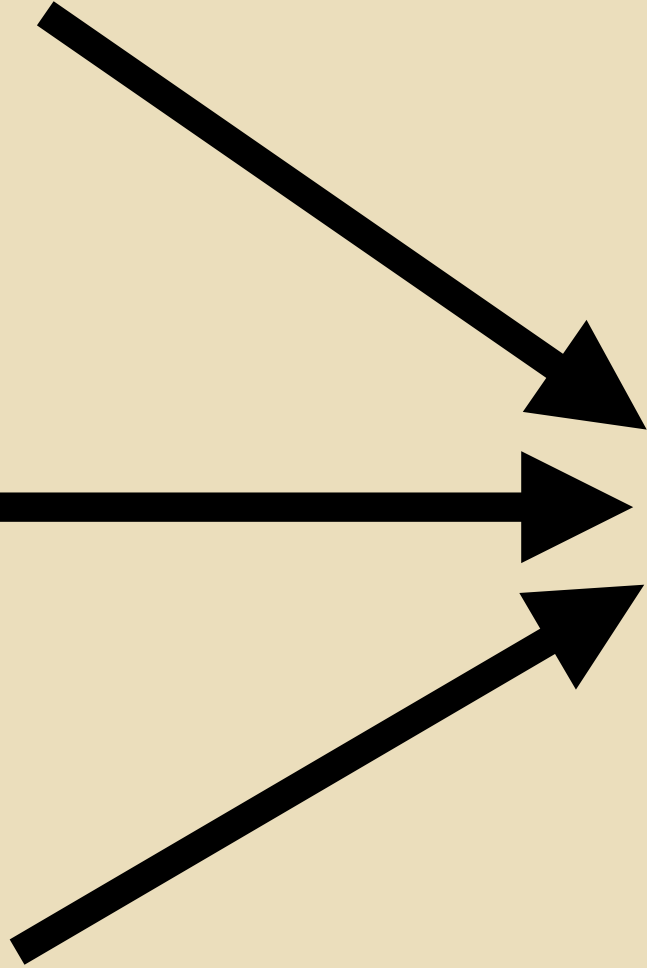
Responsive Type!

an introduction to variable fonts

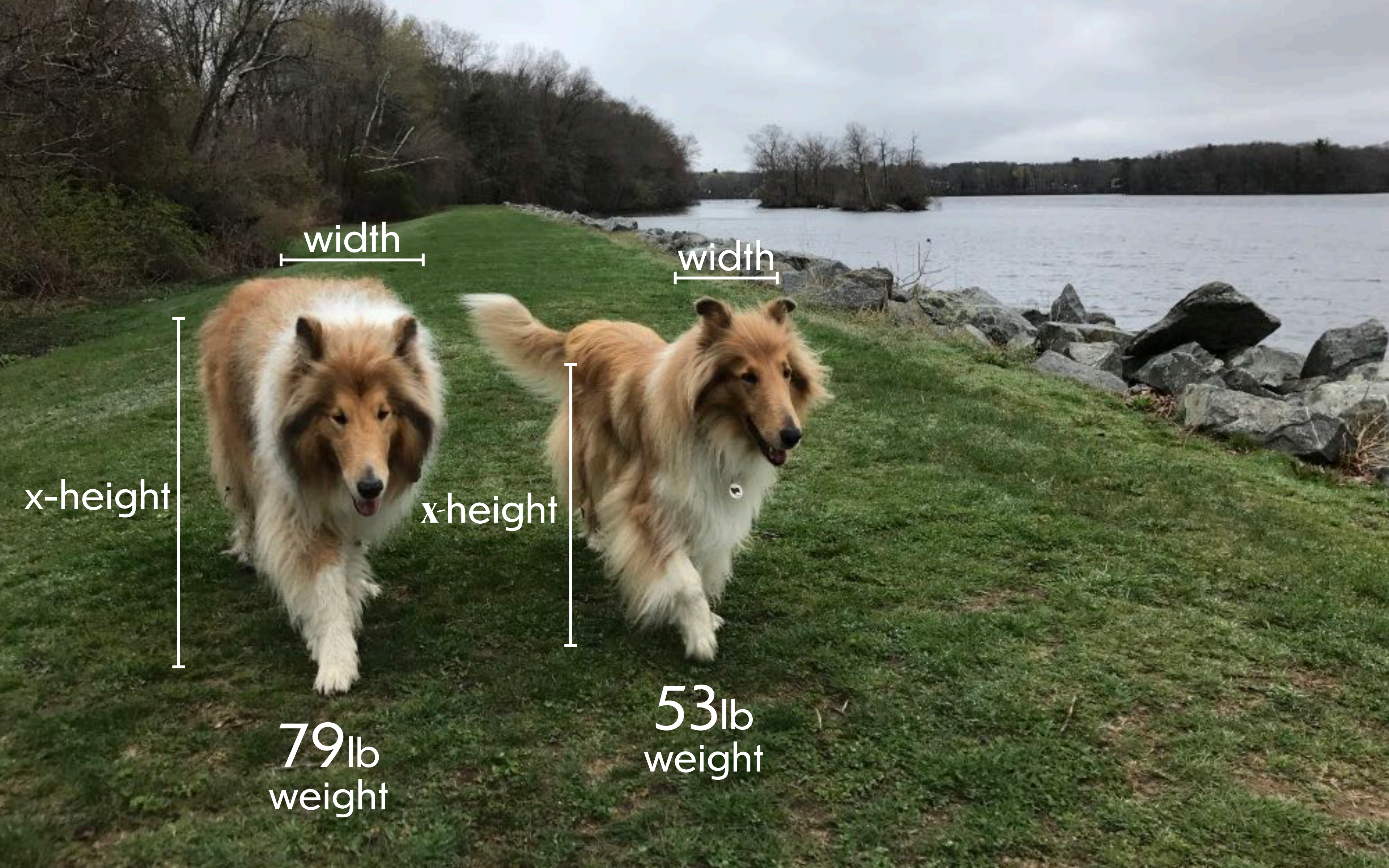


12 September, 2016

Variable Fonts







width

width

x-height

x-height

79lb
weight

53lb
weight





slant

Registered Axes

Weight

'wght'

Handglove

```
font-weight: 88;
```

```
font-variation-settings: 'wght' 88;
```

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Weight

'wght'

Handglove

font-weight: 264;

font-variation-settings: 'wght' 264;

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Weight

'wght'

Handglove

font-weight: 264;

font-variation-settings: 'wght' 264;

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Weight

'wght'

Handglove

```
font-weight: 88;
```

```
font-variation-settings: 'wght' 88;
```

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Width

'wdth'

Handglove

font-stretch: 265;

font-variation-settings: 'wdth' 265;

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Width

'wdth'

Handglove

font-stretch: 265;

font-variation-settings: 'wdth' 265;

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Width

'wdth'

Handglove

```
font-stretch: 402;
```

```
font-variation-settings: 'wdth' 402;
```

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Width

'width'

Handglove

font-stretch: 402;

font-variation-settings: 'width' 402;

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Width

'wdth'

Handglove

font-stretch: 265;

font-variation-settings: 'wdth' 265;

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Slant

'slnt'

Handglove

```
font-style: normal;
```

```
font-variation-settings: 'slnt' 0;
```

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Slant

'slnt'

Handglove

```
font-style: oblique 20deg;
```

```
font-variation-settings: 'slnt' 1000;
```

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Slant

'slnt'

Handglove

font-style: oblique 20deg;

font-variation-settings: 'slnt' 1000;

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Slant

'slnt'

Handglove

font-style: normal;

font-variation-settings: 'slnt' 0;

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Italic

'ital'

Handglove

font-style: normal;

font-variation-settings: 'ital' 0;

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Italic

'ital'

Handglove

font-style: italic;

font-variation-settings: 'ital' 1;

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Italic

'ital'

Handglove

```
font-style: italic;
```

```
font-variation-settings: 'ital' 1;
```

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Italic

'ital'

Handglove

font-style: normal;

font-variation-settings: 'ital' 0;

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Optical Size

' opsz '

Handglove

font-variation-settings: ' opsz ' 12;

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Optical Size

' opsz '

Handglove

font-variation-settings: ' opsz ' 80;

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Optical Size

'opsz'

Handglove

```
font-variation-settings: 'opsz' 80;
```

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Optical Size

'opsz'

Handglove

```
font-variation-settings: 'opsz' 12;
```

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

But wait, there's more

Grade

' GRAD '

Handglove

font-variation-settings: ' GRAD ' 88;

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Grade

' GRAD '

Handglove

font-variation-settings: ' GRAD ' 88;

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Grade

' GRAD '

Handglove

font-variation-settings: ' GRAD ' 150;

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Grade

' GRAD '

Handglove

font-variation-settings: ' GRAD ' 150;

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Grade

' GRAD '

Handglove

font-variation-settings: ' GRAD ' 88;

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Ascenders & Descenders

'YTAS' & 'YTDE'

Handglove

font-variation-settings: 'YTAS' 750, 'YTDE' 25

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Ascenders & Descenders

'YTAS' & 'YTDE'

Handglove

font-variation-settings: 'YTAS' 680, 'YTDE' 19

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Ascenders & Descenders

'YTAS' & 'YTDE'

Handglove

font-variation-settings: 'YTAS' 680, 'YTDE' 19

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Ascenders & Descenders

'YTAS' & 'YTDE'

Handglove

font-variation-settings: 'YTAS' 750, 'YTDE' 250

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Mayhem

um—all of them

HANDGLOVE

```
font-variation-settings: 'BLDA' 0, 'TRMD' 0, 'TRMC' 0, 'SKLD' 0,  
'TRML' 0, 'SKLA' 0, 'TRMF' 0, 'TRMK' 0, 'BLDB' 0, 'WMX2' 900,  
'TRMB' 0, 'TRMA' 0, 'SKLB' 0, 'TRMG' 0, 'TRME' 0;
```

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Mayhem

um—all of them

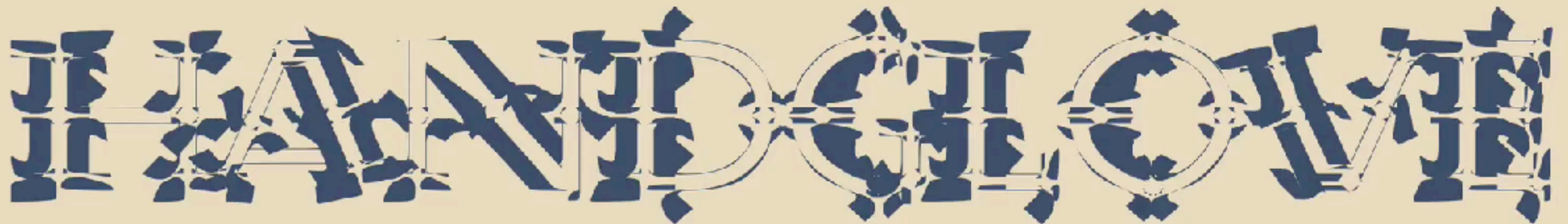
HANDGLOVE

```
font-variation-settings: 'BLDA' 0, 'TRMD' 0, 'TRMC' 750, 'SKLD'  
0, 'TRML' 250, 'SKLA' 1000, 'TRMF' 250, 'TRMK' 250, 'BLDB' 1000,  
'WMX2' 750, 'TRMB' 500, 'TRMA' 500, 'SKLB' 1000, 'TRMG' 750,  
'TRME' 500;
```

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

Mayhem

um—all of them

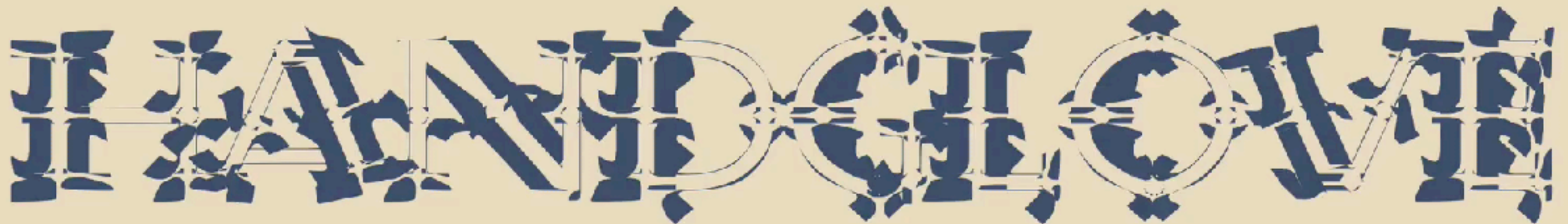


```
font-variation-settings: 'BLDA' 0, 'TRMD' 0, 'TRMC' 750, 'SKLD'  
0, 'TRML' 250, 'SKLA' 1000, 'TRMF' 250, 'TRMK' 250, 'BLDB' 1000,  
'WMX2' 750, 'TRMB' 500, 'TRMA' 500, 'SKLB' 1000, 'TRMG' 750,  
'TRME' 500;
```

Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network

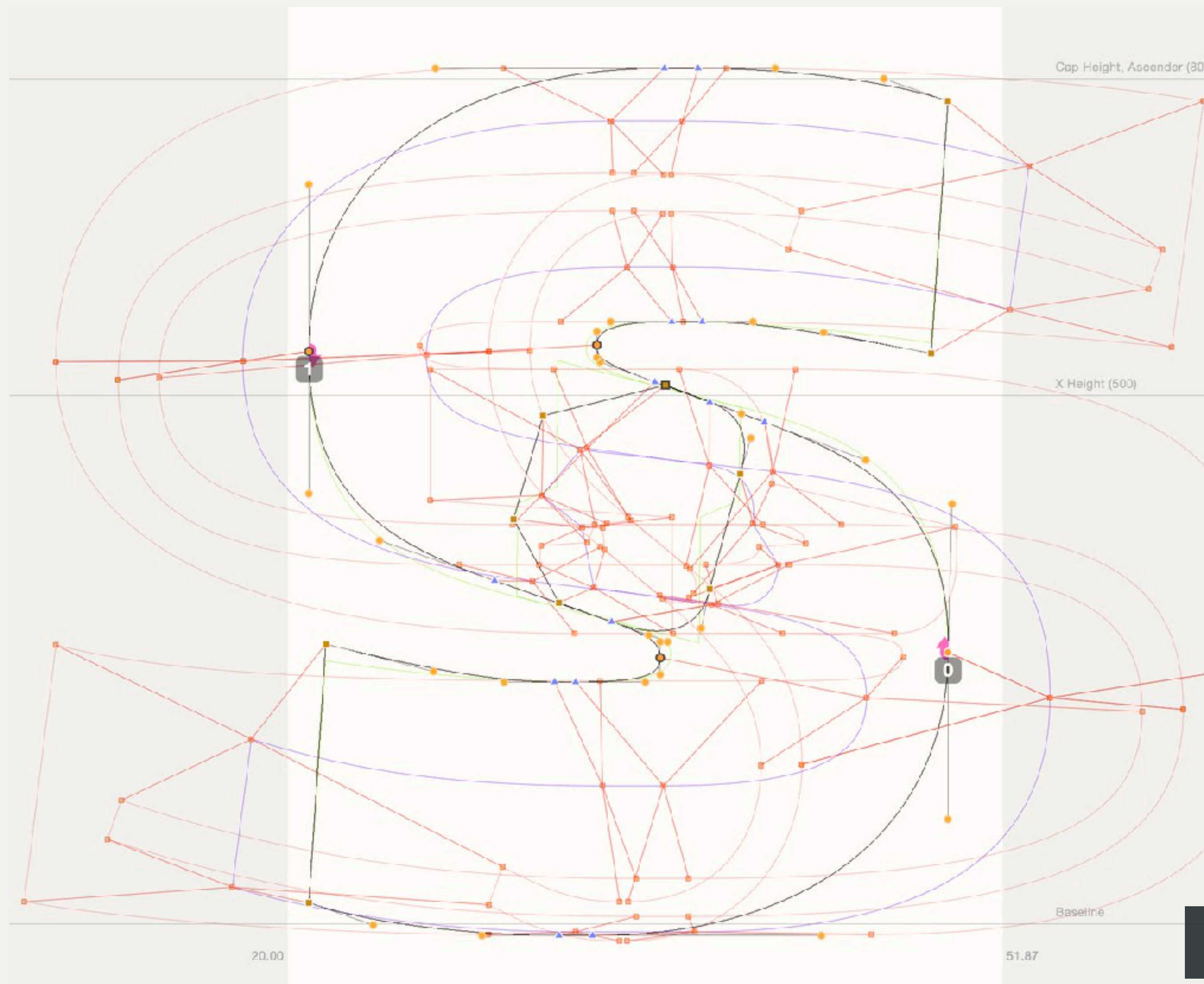
Mayhem

um—all of them



```
font-variation-settings: 'BLDA' 0, 'TRMD' 0, 'TRMC' 0, 'SKLD' 0,  
'TRML' 0, 'SKLA' 0, 'TRMF' 0, 'TRMK' 0, 'BLDB' 0, 'WMX2' 900,  
'TRMB' 0, 'TRMA' 0, 'SKLB' 0, 'TRMG' 0, 'TRME' 0;
```

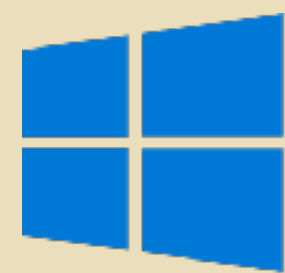
Featuring Output Sans by DJR, Louvette by CJ Dunn, & Amstelvar & Decovar by David Berlow & Type Network



iOS



Soon



Windows 10



PSA: you can help

W3C Github CSS Fonts Level 3

W3C Github CSS Fonts Level 4

Resources

Introduction

MY SPECIMENS

Old Default

SPECIMENS

NEW

Protipo Variable

文鼎晶熙黑

晶熙ゴシック体

Amstelvar

Avenir Next

BitCount

Buffalo Gal

Compressa

Decovar

DIN 2014

Dunbar

Fit

Gingham

Grade

NEW

dT Jakob

Jam

Axis-Praxis is a website for playing with OpenType Variable Fonts

Discover 30+ variable fonts. Experiment with the typographic controls in the right panel on this default layout, or choose a typeface specimen from the left column. Every textbox is fully editable: change font, font size, alignment, line-spacing as well as the variation sliders. And type your own text, of course.



Font makers can try out their own variable fonts. Just drag any variable TTF to the right panel, the current textbox gets set to that font, and its axes show up right away in the Font Variation section.

The Font Variation controls adapt according to the variation axes inside each font, one slider per axis. Create a custom instance using the

TEXTBOX

 Textbox heading1

 Font Zeitung Pro Regular i
 Drag & drop fonts here

 Font size 12

 Line-height 1.2

 Alignment Left

CSS New textbox Delete textbox

FONT VARIATIONS

 Instance Thin

 Weight 980.84

 Optical Size 20

FONT FEATURES

c2sc calt case dnom frac liga lnum locl
numr onum pnum sinf smcp ss01 subs supr
tnum zero

COLOUR

 #323
 ...00

Venn VF



Venn VF is the first family from Dalton Maag to be distributed as a variable font. It's offered for free as a technology preview for use in commercial and non-commercial work until March 1, 2019.

Design: Dalton Maag Ltd.
Publisher: Dalton Maag Ltd.
Licensing: Free for personal and commercial use
Info/fonts: daltonmaag.com

ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdef
ghijklmnopqrstuvwxyz 0123456789

Protipo Variable



A typeface designed for use in informational design. Production of [the variable fonts](#) was handled by Irene Vlachou.

Design: José Scaglione, Veronika Burian

Protipo Variable Compact

ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdef
ghijklmnopqrstuvwxyz 0123456789

Protipo Variable

ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz

Family: AvenirNext LT Pro Regular
Subfamily: Regular
Instances: 8
Axes: 2
Current: Weight: 850.3, Width: 80

Text Size (200px):

Named
Instances

400

75

900 Weight

100 Width

Handglove

<https://github.com/Monotype/variableFont.js>

VARIABLE FONTS

An exploration of expressive, performant typography

Begin expedition ▾

VARIATIONS

Metamorphoses in Type Design

This big or this big Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et Lorem ipsum dolor sit amet

VARIATIONS

Metamorphoses in Type Design

This big or this big Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore

VARIATIONS

Metamorphoses in Type Design

This big or this big Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis

Intro heading

Four score and **seven** years ago our *fathers* brought forth on this continent a nation, conceived in liberty, and dedicated to the idea that all men are created equal.



Getting Started With Variable Fonts

FF Meta Variable

Typography on the web has long been considered second to web page

performance, leaving web designers unable to apply all but the most basic typographic principles to online content. Until now. With the



HTML

```
1 <main class="content-area clearfix">
2   <div class="section-content">
3     <article class="article-detail
initial">
4     <header>
```

CSS (SCSS)

```
1 /* FF Meta Variable Demo Font */
2
3 /* Import FF Meta VF using this link in
your HTML */
4 /*
```

JS

```
1 var container =
document.getElementById('example-
ampersand');
2 var controls =
document.getElementById('play-pause');
```

The evolution of typography with variable fonts

Words have power, and typography is their voice

by Jason Pamental



Click to Play

For centuries, type has been how we ‘hear’ what we read. It’s also generally understood that typefaces and typography are a core element of branding, of expression, of vocal range. Great typography influences understanding, mood, and meaning in countless ways and is an essential part of design. Unfortunately, for many years after the advent of the web, we were unable

IT'S TIME FOR *variable* web TYPOGRAPHY

BY OLIVER SCHÖNDORFER

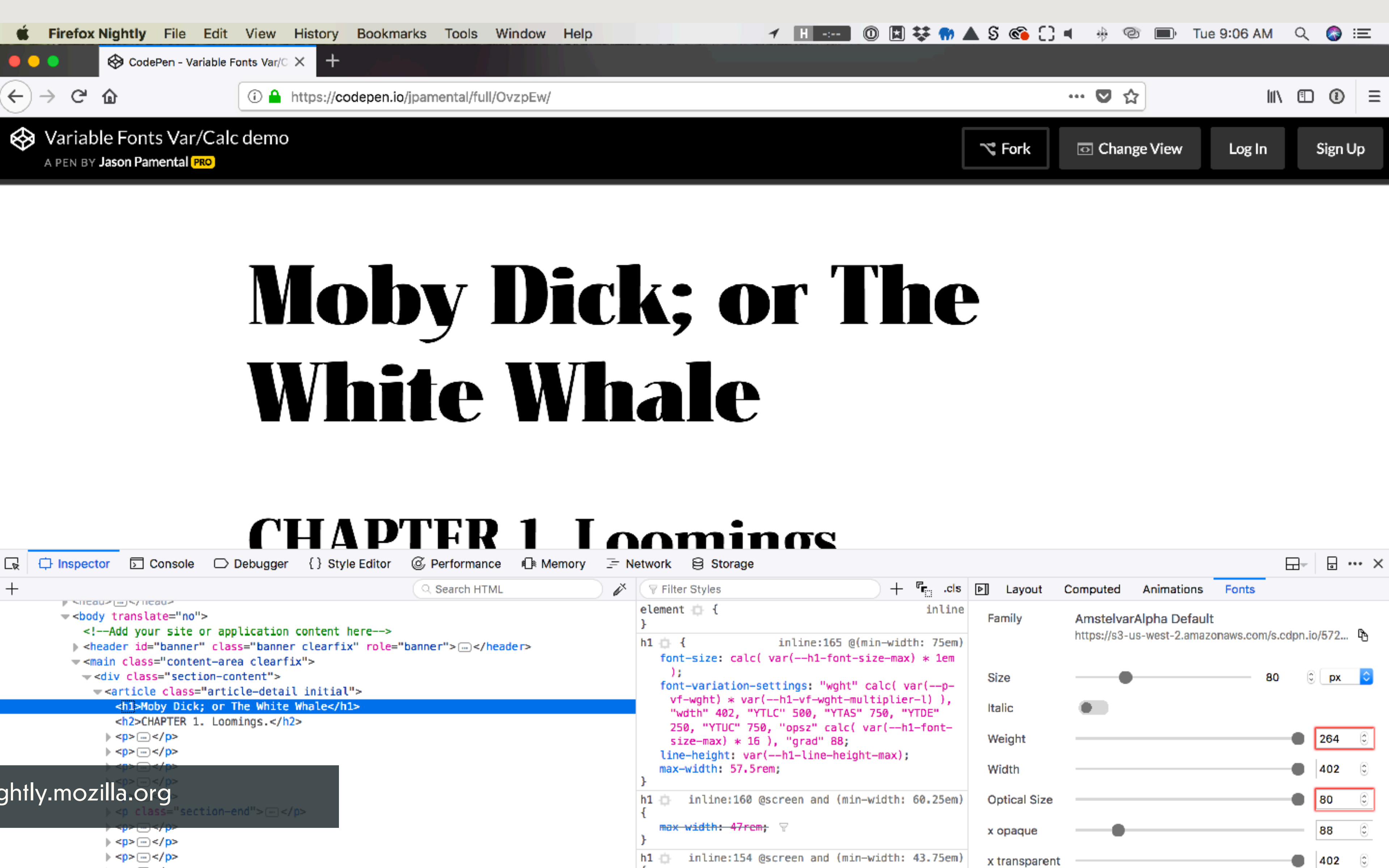
Variable fonts will shape the future of web typography as they offer plenty of possibilities for fine graded control over the display of type on screens. And that all at a relatively low file size. Time to say goodbye to endless debates about the number of font files you have to load to give your content a proper typographic voice.

<https://zeichenschatz.net/demos/vf/variable-web-typo/>

This page uses the typeface Output Sans Variable by David Jonathan Ross. It's a variable font that can be adjusted on two axes to change its *weight* and its *obliqueness*. So I only have load **one single font file** of 57 KB to create the 18 different styles you can see on this site. It opens up new possibilities for designing with text on the web with a great number of typographic expressions for an incredibly small font file. So clearly, variable fonts are the new hot thing for every type nerd since the introduction of web fonts. The technology shift is happening

right now—2018 is the year variable fonts will be supported by all major browsers. I expect by 2019, they will be used as an alternative

Deactivate variable



Moby Dick; or The White Whale

CHAPTER 1 Loomings

Inspector

Console

Debugger

Style Editor

Performance

Memory

Network

Storage

Search HTML

Filter Styles

element { }

h1 { font-size: calc(var(--h1-font-size-max) * 1em); font-variation-settings: "wght" calc(var(--p-vf-wght) * var(--h1-vf-wght-multiplier-l)), "wdth" 402, "YTLC" 500, "YTAS" 750, "YTDE" 250, "YTUC" 750, "opsz" calc(var(--h1-font-size-max) * 16), "grad" 88; line-height: var(--h1-line-height-max); max-width: 57.5rem; }

h1 inline:160 @screen and (min-width: 60.25em) { max-width: 47rem; }

h1 inline:154 @screen and (min-width: 43.75em) { }

Layout

Computed

Animations

Fonts

Family

AmstelvarAlpha Default

Size

80

px

Italic

Weight

264

Width

402

Optical Size

80

x opaque

88

x transparent

402

Colors & contrast

The contrast ratio can be adjust with weight, width, optical size and grade to maximize contrast when needed.

This higher level of programmability can prevent pixel drop, letter touching, letter form distortion and contribute to better design and accessibility.

Caption

Caption

Body

Body

Subheading

Subheading

Title

Title

Display

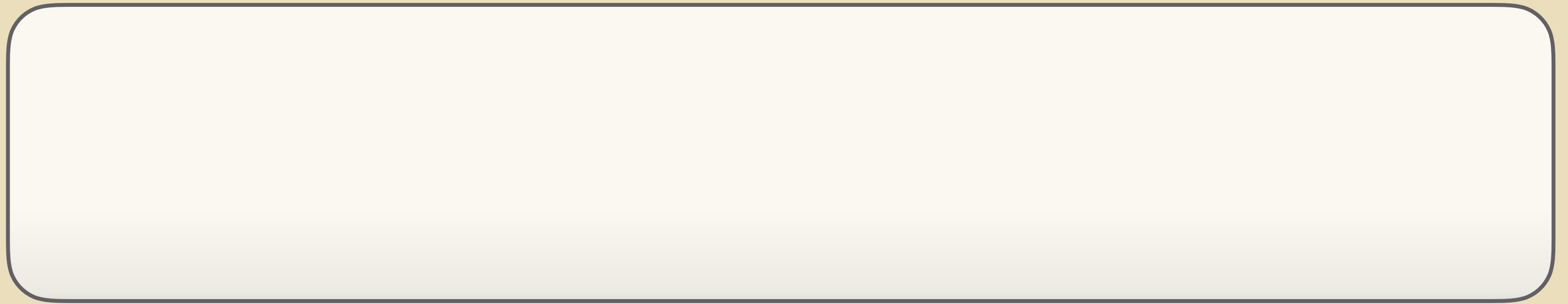
Display

Using Grade to add weight without changing width, reduces pixel dropout

handglove

Warm heart & cold fingers

handglove



handglove



Warm heart & cold fingers

handglove

GRASS

GRASS

It's a brave new world

and you get to be part of discovering it