

Conquer
Variable Web
Typography

Oliver Schöndorfer Designer

 glyphe

 zeichenschatz







COLICHECK

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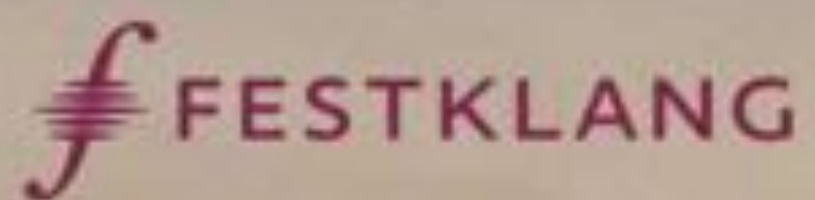
Schlafen Sie gut.
ColiCheck **wacht**
über Ihr Pferd.

[Informieren & absichern](#)



ALL THE THINGS 3:25 | GO A TOWN MY THINGS 3:34
TOWN 4:20 | BARKING DOGS 4:30 | I AM WITH YOU 2:37
SMILING EYE 4:10 | I NEED SUGAR 3:05 | SIMPLE MINDS 2:31
SILENCE 4:00 | PUPPET SHOW 2:30 | YOU SEE, I AM
LADY-GARDING 2:31 | TRAVELING MAN 3:10





[Hochzeit](#) [Taufe](#) [Feier](#) [Abschied](#) [Repertoire](#) [Über uns](#) [Buchen](#)



Musik zur Hochzeit

REICH MIR DIE HAND, MEIN LEBEN ...

Nun ist er also da, der große Moment, einander das Ja-Wort zu geben. Die Liebe strömt warm durchs Herz, die Hände zittern, der Brautvater sucht verstohlen nach dem Taschentuch. Durch den



**die
Oidn**

DIE VINTAGE ORIGINALE VON JÄCKEL-OPTIK



Wir sind Spitzenform

Hinter Spitzenform stehen Moritz Kobrna, Patrick Zesar und Stefan Daschek.



MJOM CARDS

BUY



Play Web Trumps and battle

Snapchat vs. Skype

Web Trumps by MJOM Cards is the nerdy top trumps card game you've been waiting for! Featuring **32 uniquely designed** cards of web and app companies, it's the perfect gift for your techy web friends or your geeky self.

MJOM CARDS

BUY



Play Web Trumps and battle

Netflix

vs.

Amazon

Web Trumps by MJOM Cards is the nerdy top trumps card game you've been waiting for! Featuring **32 uniquely designed** cards of web and app companies, it's the perfect gift for your

Stadtgemeinde Baden



Essensbon

bei Wien

für Kindergartenessen

Nr. 205378

1 Portion (im Wert von € 3,90)

Name des Kindes: (ist unbedingt auszufüllen)

NILA 11.10.

Name des Kindes: (ist unbedingt auszufüllen)

nila 12.10.

Name des Kindes: (ist unbedingt auszufüllen)

Nila 15.10.

Name des Kindes: (ist unbedingt auszufüllen)

NILA 16.10.

1 Portion (im Wert von € 3,90)

Name des Kindes: (ist unbedingt auszufüllen)

Nila 18.10.

1 Portion (im Wert von € 3,90)

Name des Kindes: (ist unbedingt auszufüllen)

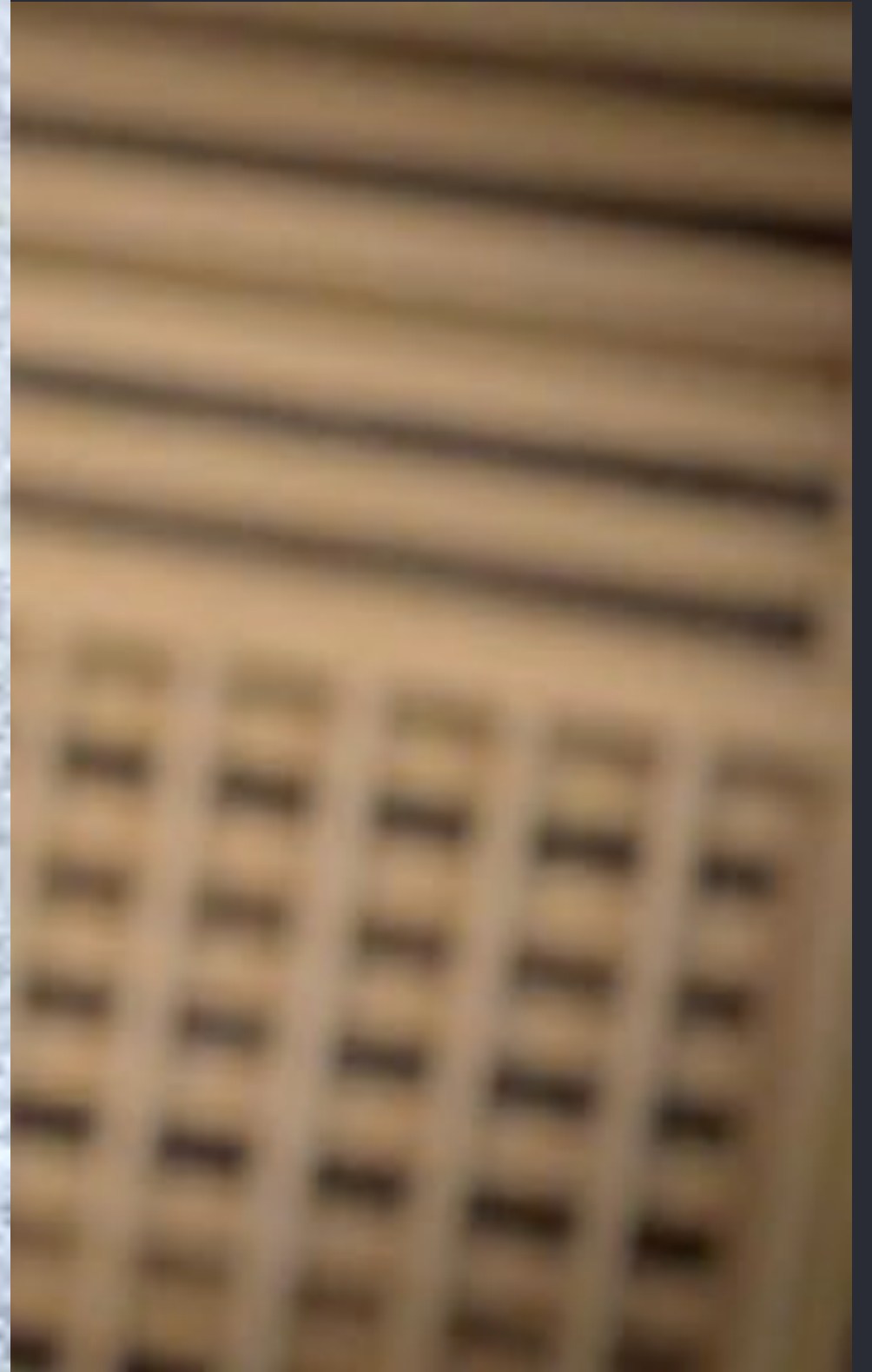
Nila 17.10.

1 Portion (im Wert von € 3,90)

Name des Kindes: (ist unbedingt auszufüllen)

NILA 19.10.





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

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

Are so many different styles really necessary?

Let's take a step back and ask ourselves **why do we need different font styles at all?** Typography gives words meaning through design, which means good typography can support the content, bad (or inappropriate) typography weakens it. Different styles of the same typeface make sense when they are unique enough to **stand out**. Concurrent they should be familiar enough by using the same design language. Compared to the regular weight, bold text emphasizes the meaning of something. It has to have a certain contrast to stand out, otherwise, it won't do its job. Maybe semi-bold would not be different enough. The same goes with italic. Semi-Italic (or semi slanted – true italics are another topic on their own) do not make much sense for long reading text.

“Typography gives words
meaning through design.”

But this guidelines mainly apply to body text or typography for long reading texts. Having a variety of weights might be beneficial for certain kinds of content, like page titles, headings or blockquotes, as you can see on this page. In that cases the typography can be **more expressive** and finely nuanced because the text usually is not that

18

font files

632 KB

for web fonts only

1

font file

56 KB

overall size

How to get started with variable fonts

1. What are variable fonts?
2. Using variable fonts on the web
3. Good times
4. Hard times
5. Getting started

What are
variable fonts?

Aa

Light

Aa

Regular

Aa

Medium

Aa

Bold

Aa

X-Bold



Aa

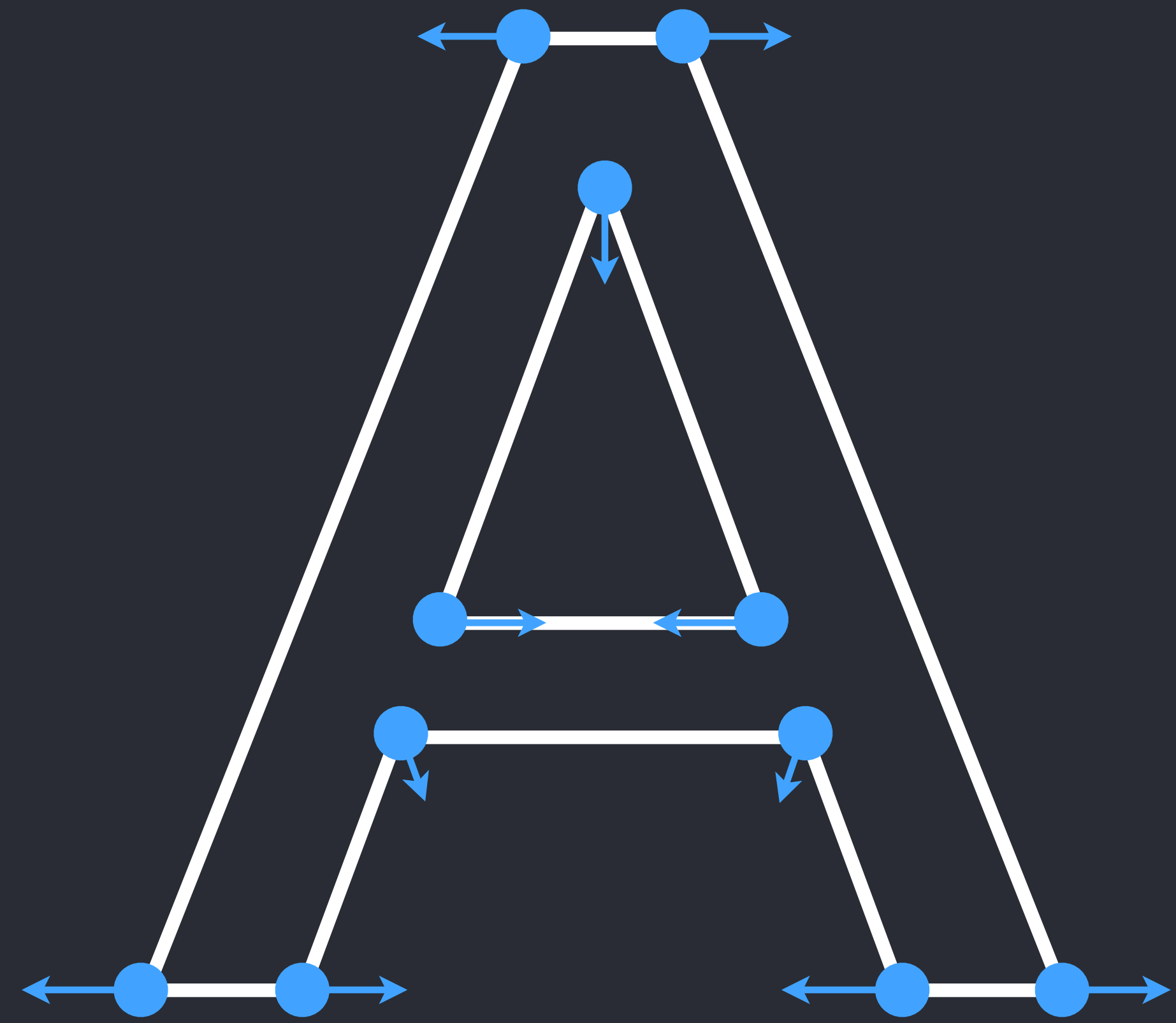
Aa

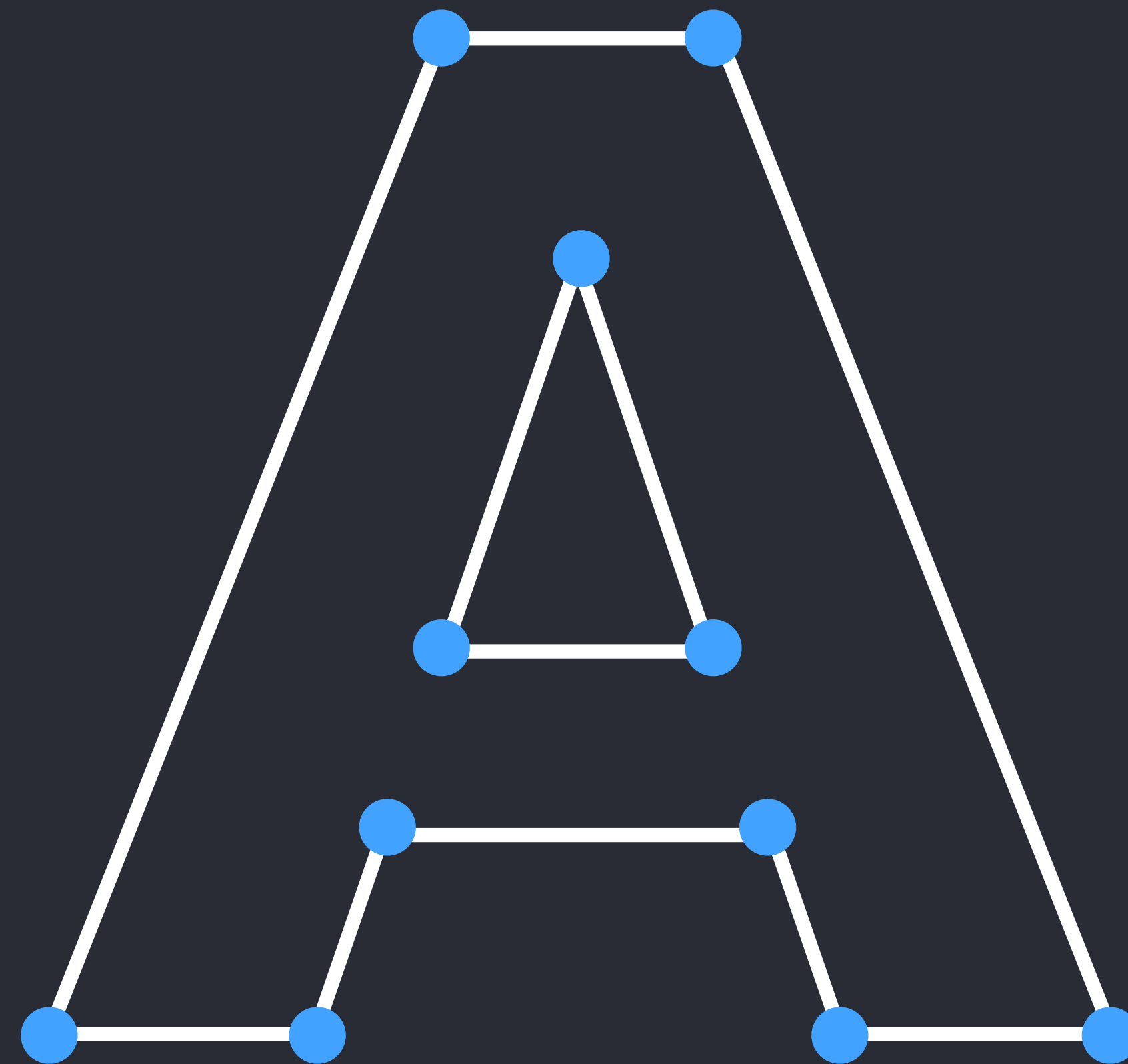
Aa

Aa

Aa

Variable font file





Aa Aa Aa Aa Aa Aa Aa **Aa**

← Interpolation →

Named instances



Aa

Aa

Aa

Aa

Aa

Aa

Aa

Aa

Aa

Light

Regular

Medium

Bold

X-Bold



Optional designs in between

Aa Aa Aa Aa **Aa**

← weight axis →

↑ width axis ↓

Aa

Aa

Aa

Aa

Aa

Aa

Aa

Aa

Aa



Using variable fonts on the web

76%

Global support



Safari 11



Chrome 62



Edge 17



Firefox 62

90%

**Mobile support
in Germany**



iOS Safari 11



**Chrome 67
for Android**

Variable Fonts Font Bundles

A simple resource for finding and trying variable fonts



Angus Variable

Weight: 0 1000

A rounded sans that maintains consistent widths regardless of changes in weight.

Design: Elliott Amstutz
Publisher: BlackFoundry
Characters: Latin
Licensing: Paid/Commercial
Info/Fonts: black-foundry.com

Angus Variable

ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghi
jklmnopqrstuvwxyz 0123456789

Angus Variable *italic*

*ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghi
jklmnopqrstuvwxyz 0123456789*

Eckmannpsych Variable

Optical size: 0 1000

A psychedelic interpretation of Otto Eckman's *Eckmann-Schrift*, available with discounted pricing as a work-in-progress design. It comes with a bonus *DreamBot* script for making variable animations.

Design: James T. Edmondson
Publisher: Onno Type Co.
Characters: Latin
Licensing: Paid/Commercial
Info/Fonts: substfont.com

**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
0 1 2 3 4 5 6 7 8 9**

Discover new variable fonts try them out, see where to get them

```
@font-face {  
  font-family: 'Venn';  
  src: url('Venn.woff2') format('woff2-variations'),  
       url('Venn.woff2') format('woff2');  
}
```

Will become the standard



Fallback for older browser versions

Introduction

MY SPECIMENS

Old Default

SPECIMENS

- FounderType YouHei
- Gnomon
- Venn
- 文鼎晶熙黑
- 晶熙ゴシック体
- Amstelvar
- Avenir Next
- Bitcount
- Buffalo Gal
- Compressa
- Decovar
- DIN 2014
- Dunbar
- Fit
- Clash

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

Discover 30+ variable fonts. Experiment with the right panel on this default layout, or choose a type column. Every textbox is fully editable: change the text, font, size, color, background color, spacing as well as the variation sliders. And type your own text.

TEXTBOX

Textbox

summary!

Font

Vero Serif GX

Drag & drop fonts here

Font size

FONT VARIATIONS

Instance	12 1 100
Width	<input type="range"/>
Weight	<input type="range"/>
Optical Size	<input type="range"/>

Font makers can try out their fonts. Just drag any variable TTF to 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

1. Select font or drop font file

2. See available axes and ranges



registered axes

wght

wdth

ital

slnt

opsz

Weight Axis

Weight Axis

```
font-weight: 327;
```

```
font-variation-settings: "wght" 327;
```

```
font-weight: 327;
```

High-level property

will become standard with CSS 4 Font Module

```
font-variation-settings: "wght" 327;
```

Low-level property

supported by all participating browsers now

Width Axis

Width Axis

```
font-stretch: 78%;
```

```
font-variation-settings: "wdth" 78;
```

INTERMISSION

STRETCH

TIGON

STRETCH
FAB

Don't stretch me

```
transform: scaleX(1.25);
```

Don't stretch me

```
transform: scaleX(1.25);
```

Don't stretch me

`font-stretch: 125%;`

Don't stretch me

font-stretch: 125%;

Don't stretch me

```
transform: scaleX(1.25);
```

Don't stretch me

```
font-stretch: 125%;
```


Italic Axis

Italic Axis

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

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

Slant Axis

Slant Axis

```
font-style: oblique 8deg;
```

```
font-variation-settings: "slnt" 8;
```

Optical Sizing Axis

Aa Aa Aa Aa

Low contrast
for small sizes

Aa

12px

Aa

24px

Aa

48px

High contrast
for large sizes

Aa

72px

Aa Aa Aa Aa

```
font-optical-sizing: auto;
```

```
font-variation-settings: "opsz" 72;
```

CUSTOM AXIS

CUSTOM AXIS

```
font-variation-settings: "TRMC" 1000,  
                          "SKLA" 400,  
                          "SKLB" 800, ...
```

GOVERNMENT

12. April 2014 - 10:00 Uhr, 10 Minuten, 10 Sekunden, 10 Sekunden, 10 Sekunden

Folge 6: Kämpfen bis zur Selbstaufgabe

Die meisten Aufgaben des Fortbewährens fängen an Togo – und
Erschweren lassen sie sich nicht mehr. Doch dann macht Janka plötzlich über
sich hinweg.

von Hans-Jürgen





23 KB PT Serif Regular

23 KB PT Serif Bold

24 KB *PT Serif Italic*

36 KB Work Sans Regular

39 KB Work Sans Medium

39 KB Work Sans SemiBold

52 KB Work Sans Bold

166 KB



Work Sans Regular

Work Sans Medium

Work Sans SemiBold

Work Sans Bold

166 KB

Work Sans Variabel?

~80 KB

dstype.com

dstype Foundry Fonts Variable Fonts Custom Fonts Support News About Log In

Foreday
Pedro Leal, Olivero Torres

Size 0 —●— 200

Weight 60 —●— 180

Serif 1 —●— 20

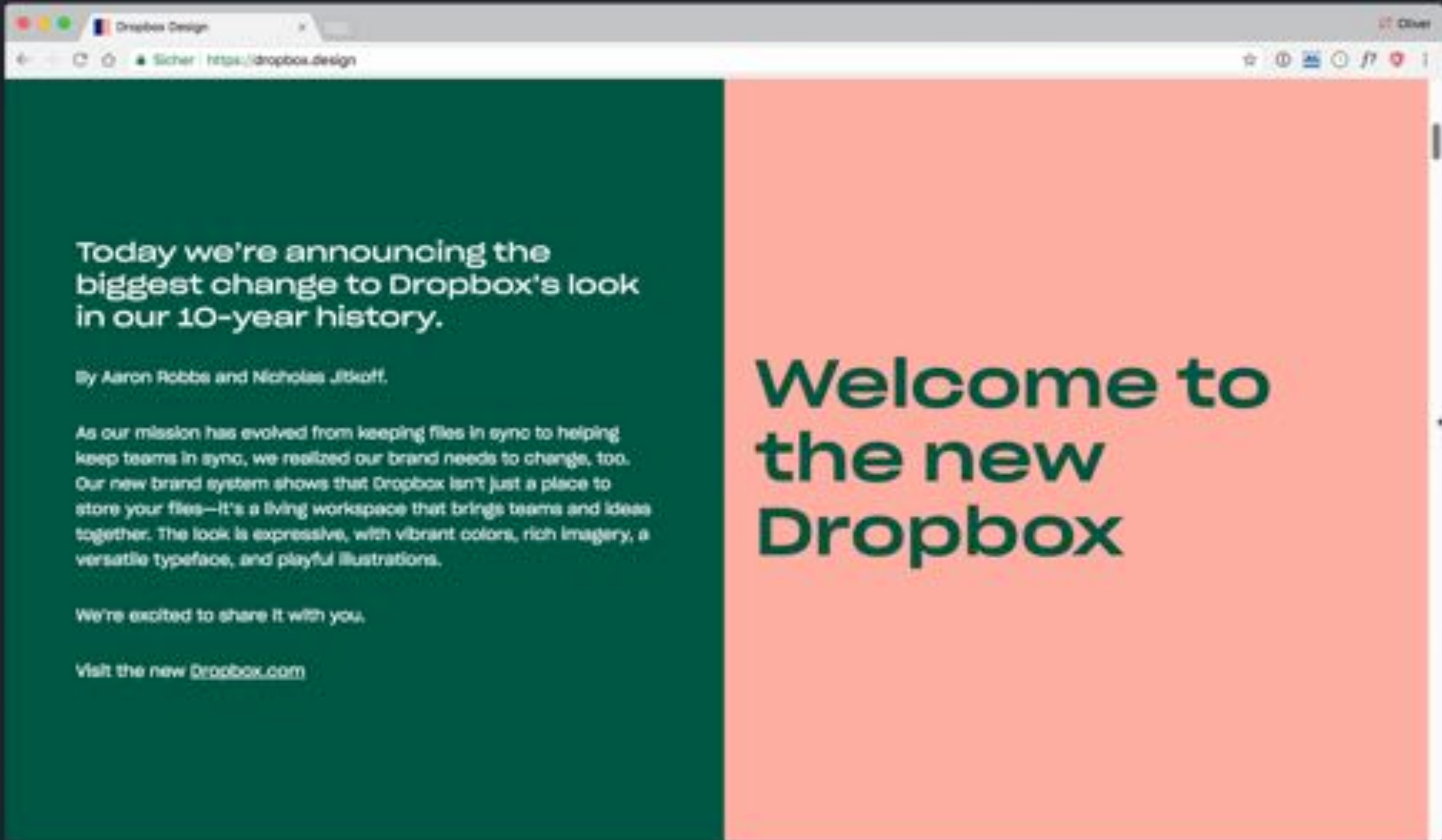
Buying Options

Quirky spud
boys can jam
after zapping
five worthy
Polysixes.

dstype.com/variable-fonts

The screenshot shows the DType Foundry website interface. At the top, there is a navigation menu with links for 'DType Foundry', 'Fonts', 'Variable Fonts', 'Custom Fonts', 'Support', 'News', and 'About'. A 'Log In' link is located in the top right corner. The main content area features the 'Foreday' font, described as 'Pedro Leal, Oliva dos Santos'. Below the font name are three sliders: 'Size' (0 to 200), 'Weight' (60 to 100), and 'Serif' (1 to 30). A pink button labeled 'Buying Options' is positioned below the sliders. To the right of the controls, the text 'Quirky spud boys can jam after zapping five worthy Polysixes.' is displayed in the selected font style.

dstype.com/variable-fonts



Today we're announcing the biggest change to Dropbox's look in our 10-year history.

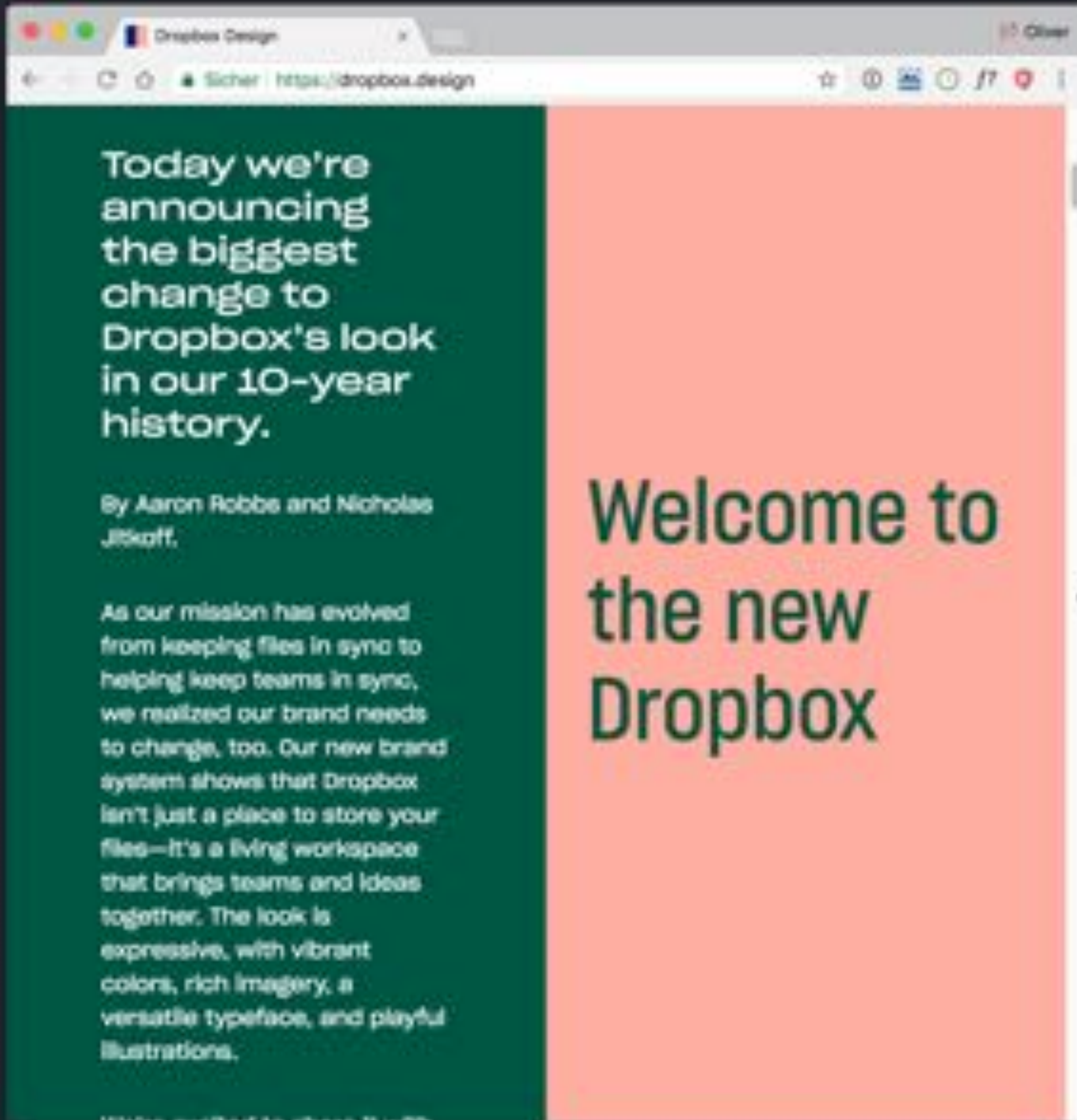
By Aaron Robbe and Nicholas Jitkoff.

As our mission has evolved from keeping files in sync to helping keep teams in sync, we realized our brand needs to change, too. Our new brand system shows that Dropbox isn't just a place to store your files—it's a living workspace that brings teams and ideas together. The look is expressive, with vibrant colors, rich imagery, a versatile typeface, and playful illustrations.

We're excited to share it with you.

Visit the new [Dropbox.com](https://dropbox.com)

Welcome to the new Dropbox



WEB TYPOGRAPHY

A brief history

Rich typography has for years been the envy of many web designers, who long for the typographic variety, texture, and precision available in print media.

The first huge stride in typographic detail on the web was the introduction of web fonts, which allowed designers and developers to use many other fonts besides the handful generally available on user's operating systems.

Why were web fonts so exciting for designers? Jason Pamental put it eloquently, "typography is communication" but currently the web is "all system, no soul." Web fonts teased the opportunity of bringing that "soul" to the web. Unfortunately for web fonts, to provide this soul, it comes at an

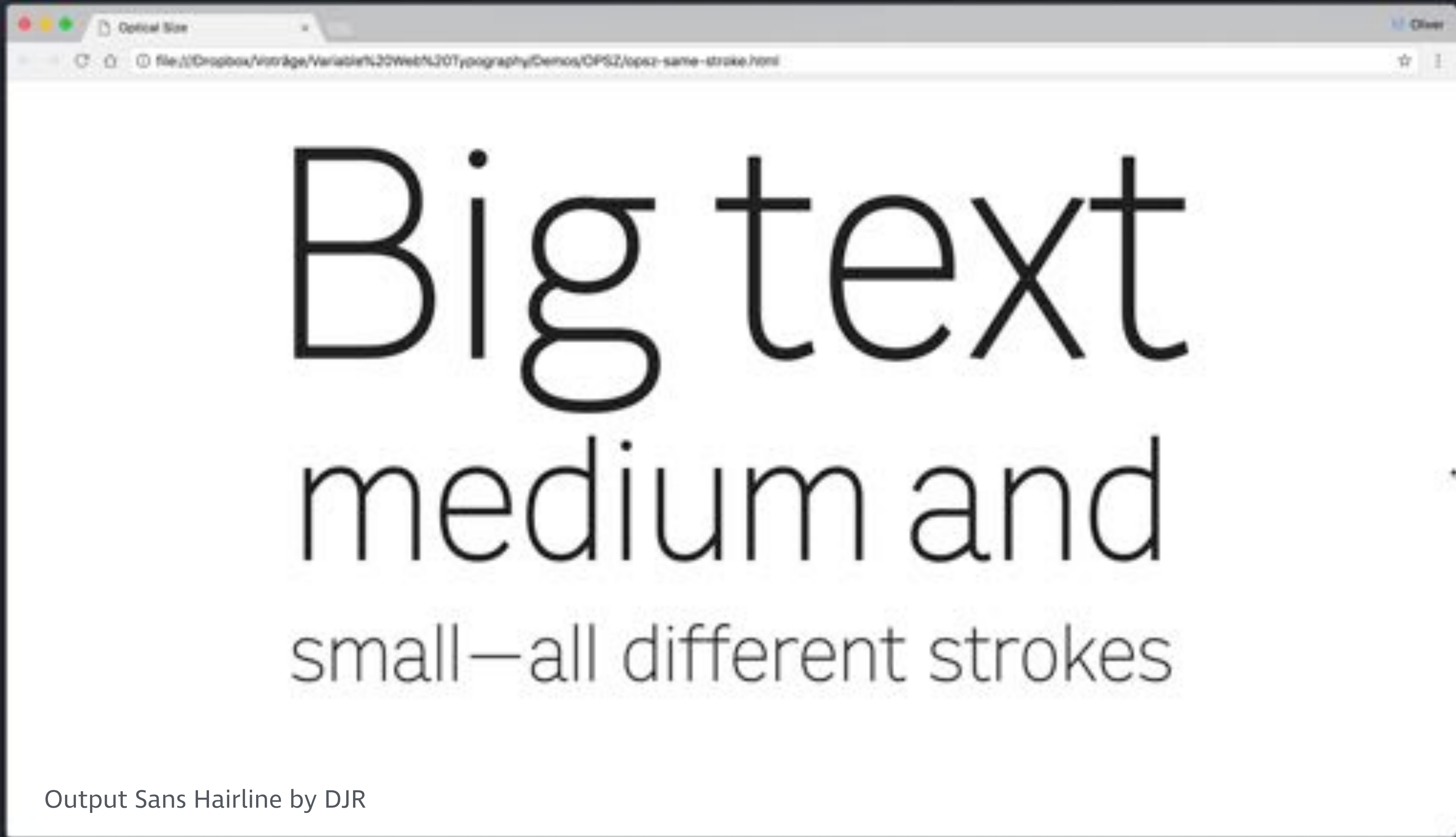
Pause animations



Chrome

```
h1 { font-size: 20vmax; }  
h2 { font-size: 11vmax; }  
h3 { font-size: 5vmax; }
```

Output Sans Hairline by DJR



Output Sans Hairline by DJR

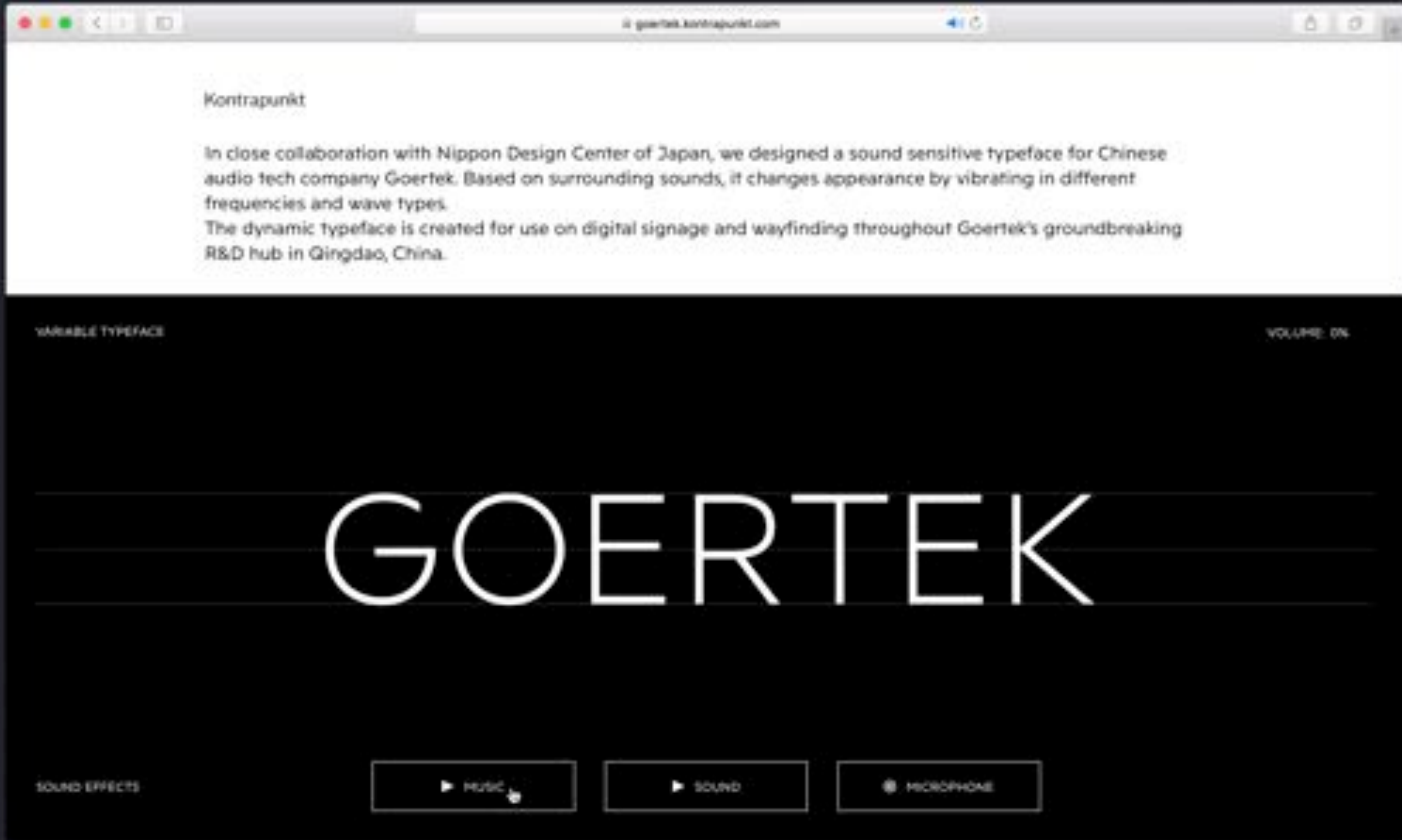


Safari

```
font-optical-sizing: auto;  
supported by default
```

Big text
medium and
small—all the same stroke

Output Sans Hairline by DJR



Kontrapunkt

In close collaboration with Nippon Design Center of Japan, we designed a sound sensitive typeface for Chinese audio tech company Goertek. Based on surrounding sounds, it changes appearance by vibrating in different frequencies and wave types.

The dynamic typeface is created for use on digital signage and wayfinding throughout Goertek's groundbreaking R&D hub in Qingdao, China.

VARIABLE TYPEFACE

VOLUME: ON

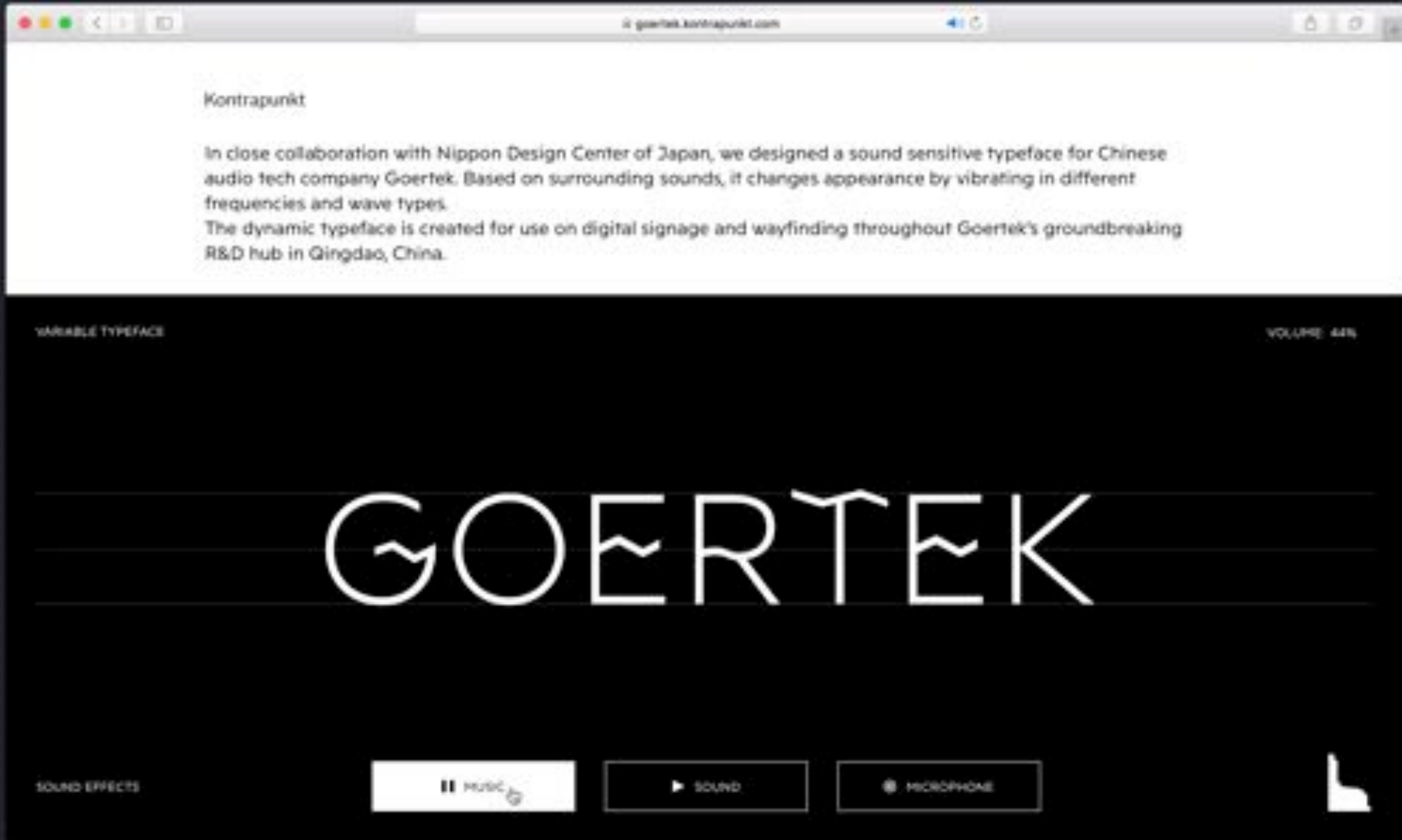
GOERTEK

SOUND EFFECTS

▶ MUSIC

▶ SOUND

⊕ MICROPHONE



Hand Times

Axis-Praxis Variable Fonts

Sicher <https://www.axis-praxis.org/specimens/amstelvar>

AXISPRAXIS playground blog resources support

Introduction

MY SPECIMENS

Old Default

SPECIMENS

- FounderType
- YouHei
- Gnomon
- Venn
- 文鼎晶熙黑
- 晶熙ゴシック体
- Amstelvar**
- Avenir Next
- Bitcount
- Buffalo Gal
- Compressa
- Decovar
- DIN 2014
- Dunbar
- Fit

Amstelvar

The OpenType Font Variations format includes a broad range of standard variables:

weights from heavy to light, widths from wide to narrow, optical sizes from small to large, contrast, serif slope, and a few others which are currently on the drawing board. This demo variation font includes a Weight axis that lightens without change horizontally or vertically, to the white space, and darkens the same way, without decreasing the white space, just changing the black, and the widths of the glyphs.

TEXTBOX

Textbox: Heading

Font: AmstelvarAlpha Default

Font size: [Slider]

Line height: [Slider]

Alignment: [Left] [Center] [Right]

Font Variations: [X]

Instance: [Dropdown]

Weight: [Slider]

Width: [Slider]

Optical Size: [Slider]

x opaque: [Slider]

x transparent: [Slider]

y opaque: [Slider]

ic y transparent: [Slider]

Serif height: [Slider]

Grade: [Slider]

x transparent C: [Slider]

y transparent C: [Slider]

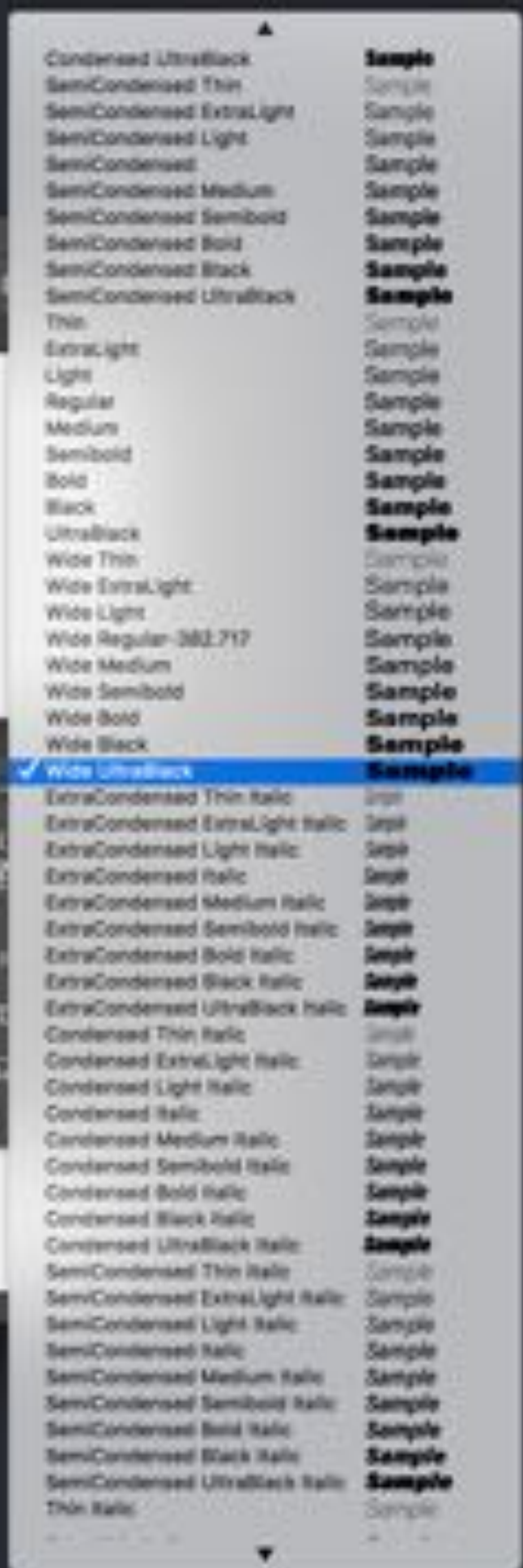
x transparent a: [Slider]

y transparent C: [Slider]

x transparent u: [Slider]

y transparent: [Slider]

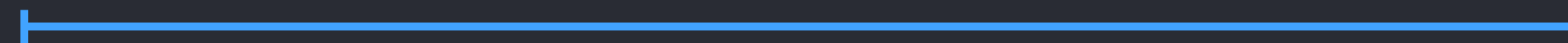
Overchoice
 Many options make it harder and require much more knowledge



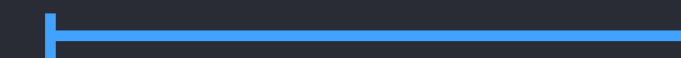
90 named instances for Acumin Variable in Photoshop

Static Fonts

Variable Font



90 KB



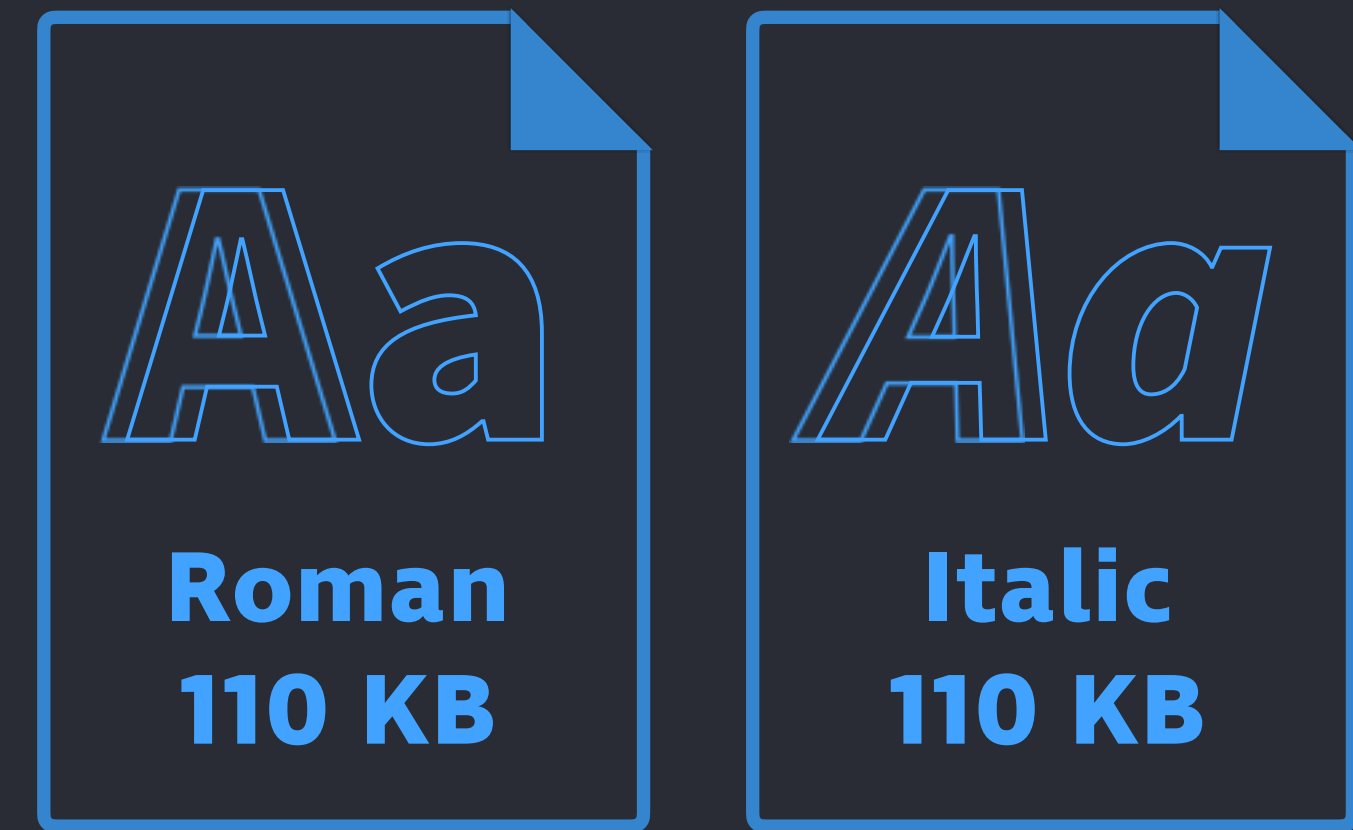
110 KB

Static Fonts



90 KB

Variable Font



220 KB

Single font



€ 30–60

Font family



€ 300–700

Single font



€ 30–60

Variable font



€ ?

Font family



€ 300–700

MutatorSans

MUTATOR
MUTATOR
MUTATOR
MUTATOR

This project consists of [UFO](#) source font data for a small 2 dimensional [designspace](#).

- Weight and width axes, 2 intermediates.
- Intended for testing all sorts of [variable](#) and [mutator math](#) and making it not look entirely stupid.
- Contains components.
- Cubic outlines.
- Working minimal Variable Font, however without STAT table, or complete characterset
- I may or may not add to the characterset.

Building in RoboFont

- Install the [Batch RoboFont extension](#)

Open Source

Aa

Foreday Superfamily
60 styles
\$199.99

[Try](#) [Buy](#)

Free 1 Year License
Single Style \$1.99/month
Complete \$11.99/month
\$199.99 & 1 Year (one-time)

The end of the design space we used for centuries is just around the corner and, as a discipline, the survival of type design will clearly depend on how we will face the upcoming problematics. This typeface is our first attempt to respond to the problematics of the upcoming digital publications. While in print the serifs might contribute to the legibility of typefaces, making any publications easier to read, the fact is that in screen environments the sans serif can render better and come out cleaner and thus more legible. In order to preserve the overall identity of the publication we expanded the design space, from the usual thin to thick, to serif to sans serif while confirming the consistency of the x between typographic shapes. This way we can have a uniform typographic support for both analog and digital publications or, if digital only, here

Variable AaBbCcDdEeFfGgHhIiJjKkLlMmNnOoP
 Variable Italic AaBbCcDdEeFfGgHhIiJjKkLlMmN
 Serif Light AaBbCcDdEeFfGgHhIiJjKkLlMmNnOo
 Serif Light Italic AaBbCcDdEeFfGgHhIiJjKkLlMm
 Serif Book AaBbCcDdEeFfGgHhIiJjKkLlMmNnO
 Serif Book Italic AaBbCcDdEeFfGgHhIiJjKkLlM
 Serif Medium AaBbCcDdEeFfGgHhIiJjKkLlMm
 Serif Medium Italic AaBbCcDdEeFfGgHhIiJjKk
 Serif Bold AaBbCcDdEeFfGgHhIiJjKkLlMmNnO
 Serif Bold Italic AaBbCcDdEeFfGgHhIiJjKkLl

Hosting and Renting

TYPE+TECH

SHOP

Buy 12 styles Get variable fonts

Black[Foundry] strives to stay on top of the latest advancements in font technology. To help you get acquainted with the groundbreaking new font format, we offer you the Vesterbro variable fonts for free when you buy the full family.

Vesterbro



FREE TRIAL

Buying options

CHOOSE LICENCE

- Desktop up to 2 users
- Webfont
- App

VESTERBRO FULL FAMILY

- 12 fonts + 2 Variables -30% 344€

VESTERBRO ROMANS

- 6 weights + Variable -30% 172€

VESTERBRO ITALICS

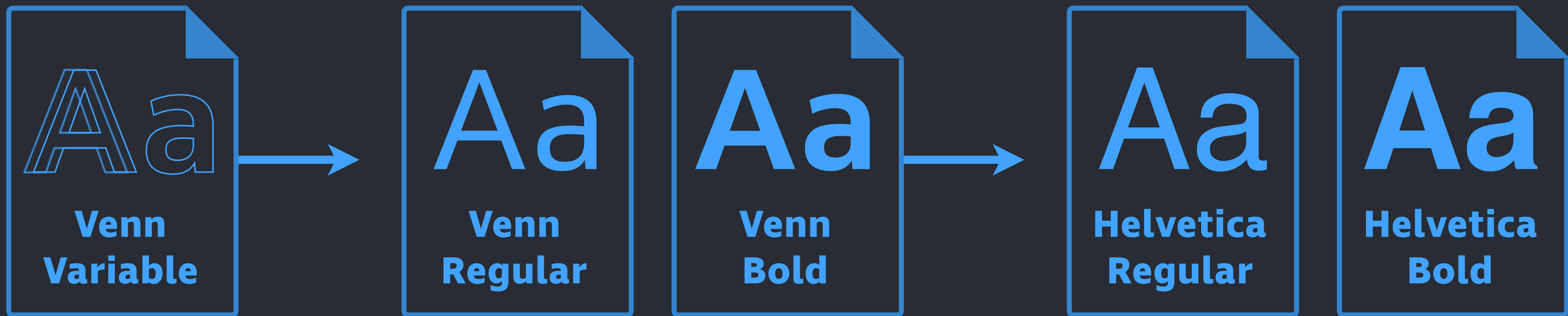
- 6 weights + Variable -30% 172€

INDIVIDUAL WEIGHTS

- Vesterbro-Light 35€
- Vesterbro-LightItalic 35€
- Vesterbro-Regular 35€
- Vesterbro-Italic 35€

Retail
Add on

GET STARTED!



**Variable
Web Font**
First Choice

**Static
Web Fonts**
1st Fallback

**Default
System Fonts**
Fallback




Variable fonts with fallback web fonts



Variable fonts
with fallback
web fonts

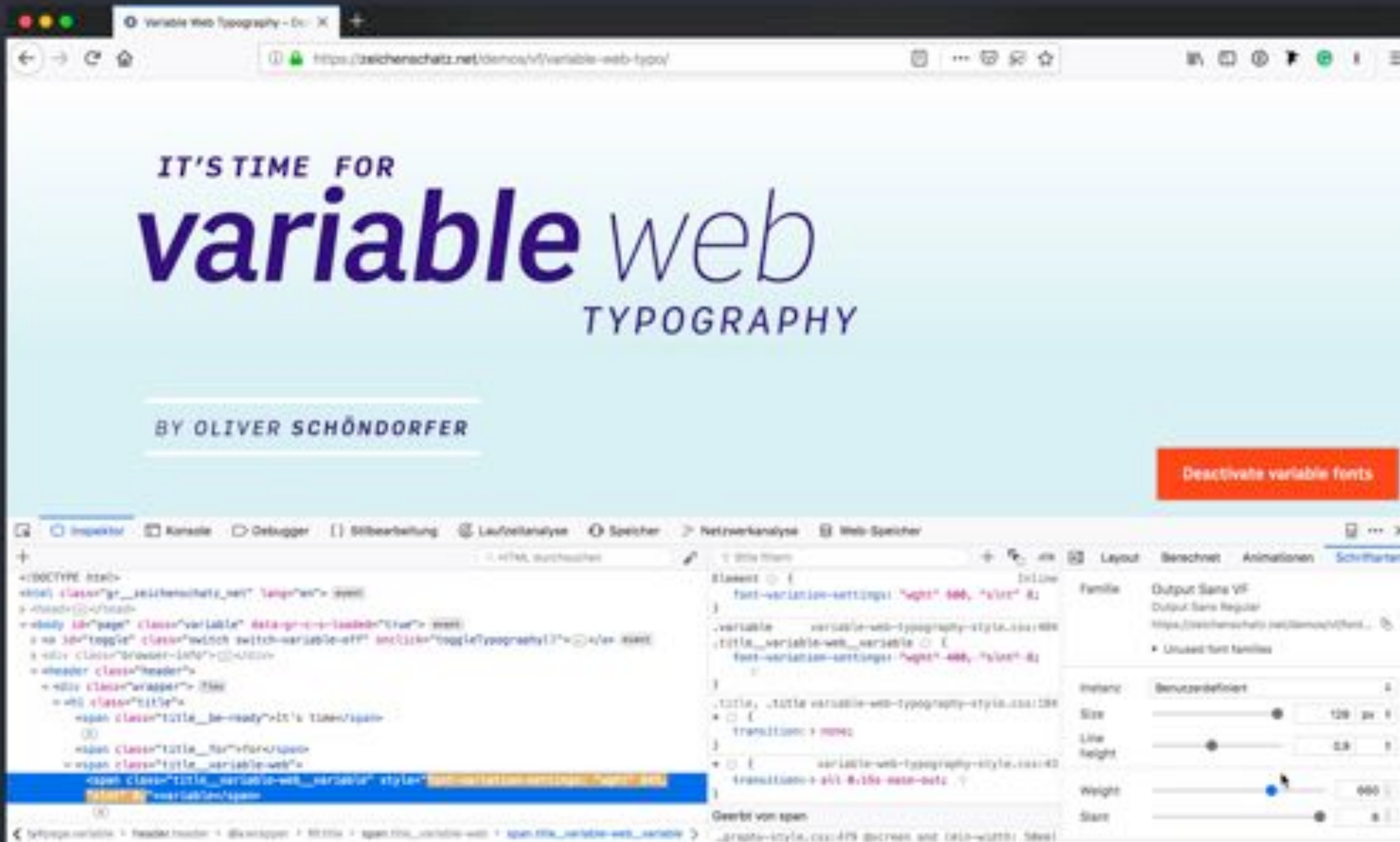
Not supporting browsers will ignore this

```
h1 {  
  font-size: 2.5rem;  
  font-variation-settings: "wdth" 75;  
}
```



```
h1 {  
  font-size: 2.5rem;  
  font-variation-settings: "wdth" 75;  
}
```

```
@supports (font-variation-settings: normal) {  
  h1 {  
    font-size: 4rem; ← Only when variable fonts work  
  }  
}
```

Firefox 63
DevTools

Summing up

- **One font file** with many possible styles
- **Fine graded influence** for better typography – when you know what you're doing
- **Improvements by default** with optical-sizing
- **Performance gain** under certain conditions
- **Use web fonts** as first fallback option

Resources

- **How to start with variable fonts on the web** by me: bit.ly/2NgHQId
- **Use a variable font with fallback web fonts** by me: bit.ly/2Dk22qY
- **For new releases** v-fonts.com & twitter.com/variablefonts
- **Testing variable fonts** axis-praxis.org & play.typedetail.com
- **List of available variable Fonts** by Indra Kupferschmid: bit.ly/2MC8QV9
- **Getting started with variable fonts** by Richard Rutter: bit.ly/2BwVViT
- **Use variable fonts in the real world** by Richard Rutter: bit.ly/2FLvtRc
- **TYPO Labs 2018** various talks: typotalks.com/labs

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

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Deactivate variable fonts

It's time for variable web typography

BY OLIVER SCHÖNDORFER

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Activate variable fonts

18

font styles out of
one font file at

57

KB
only

A quick introduction to variable fonts

One simple explanation I picked up during my research is, that variable fonts are **one font file that behaves like many**. Traditionally for every single font weight or style, e.g. italic, bold or light expanded you need to load a corresponding font file. With one OpenType variable font file, you can generate multiple individual font styles and that at a very granular level.

↑
thin axis

Aa	Aa	Aa	Aa	Aa
Aa	Aa	Aa	Aa	Aa
Aa	Aa	Aa	Aa	Aa

Deactivate variable fonts

18 font styles out of one font file at 57 KB only

A quick introduction to variable fonts

One simple explanation I picked up during my research is, that variable fonts are **one font file that behaves like many**. Traditionally for every single font weight or style, e.g. *italic*, **bold** or *light expanded* you need to load a corresponding font file. With one OpenType variable font file, you can generate multiple individual font styles and that at a very granular level.

A font preview interface showing a vertical axis on the left and a grid of 'Aa' pairs. The 'Aa' pairs show a gradient from light to bold. A red button labeled 'Activate variable fonts' is at the bottom right.

Be more variable

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