

Conquer Variable Web Typography

Oliver Schöndorfer Designer



glyphe



zeichenschatz







[Features](#)

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[Support](#)

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

[Informieren & absichern](#)



- 1 ALL THE THINGS 3:26 2 DO I OWN MY THINGS 3:34
3 TIGER 4:20 4 AIMLESSNESS 4:20 5 I AM WITH YOU 2:27
6 SMILING EYE 4:10 7 I NEED SUGAR 3:05 8 SIMPLE MIND 2:11
9 SILENCE 4:09 10 PUPPET SONG 2:19 11 YOU SEE 3:46
12 GRASS GROWING 2:32 13 TRAVELING BRAIN 3:19

K
konkord 103
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studio@konkord.org
www.konkord.org



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[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





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**
bei Wien 
Essensbon
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.

(ist unbedingt auszufüllen)

Nila 15.10.

(ist unbedingt auszufüllen)

NILA 16.10.

1 Portion (im Wert von € 3,90)
Name des Kindes: (ist unbedingt auszufüllen)

Nila 18.10.

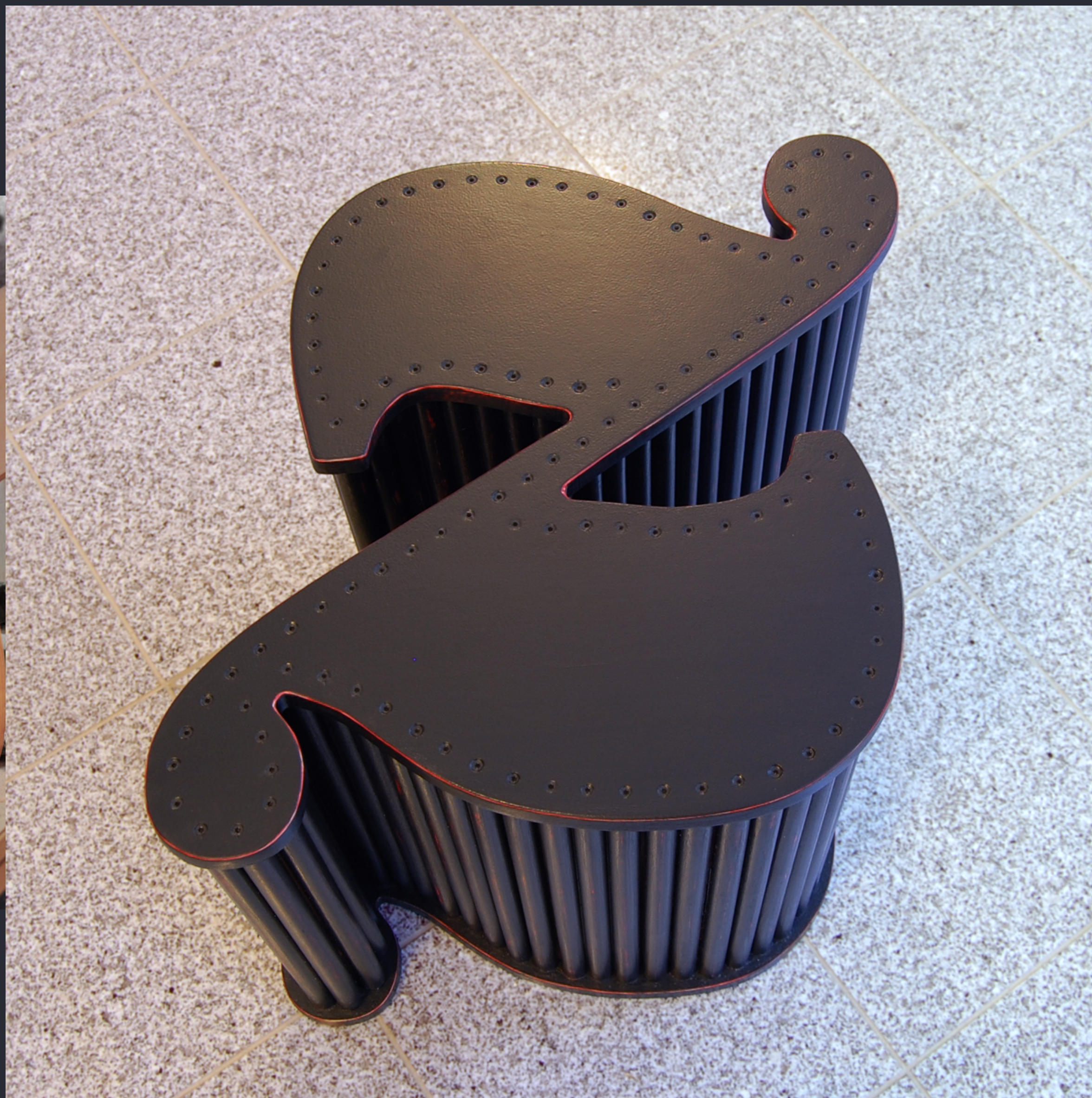
1 Portion (im Wert von € 3,90)
Name des Kindes: (ist unbedingt auszufüllen)

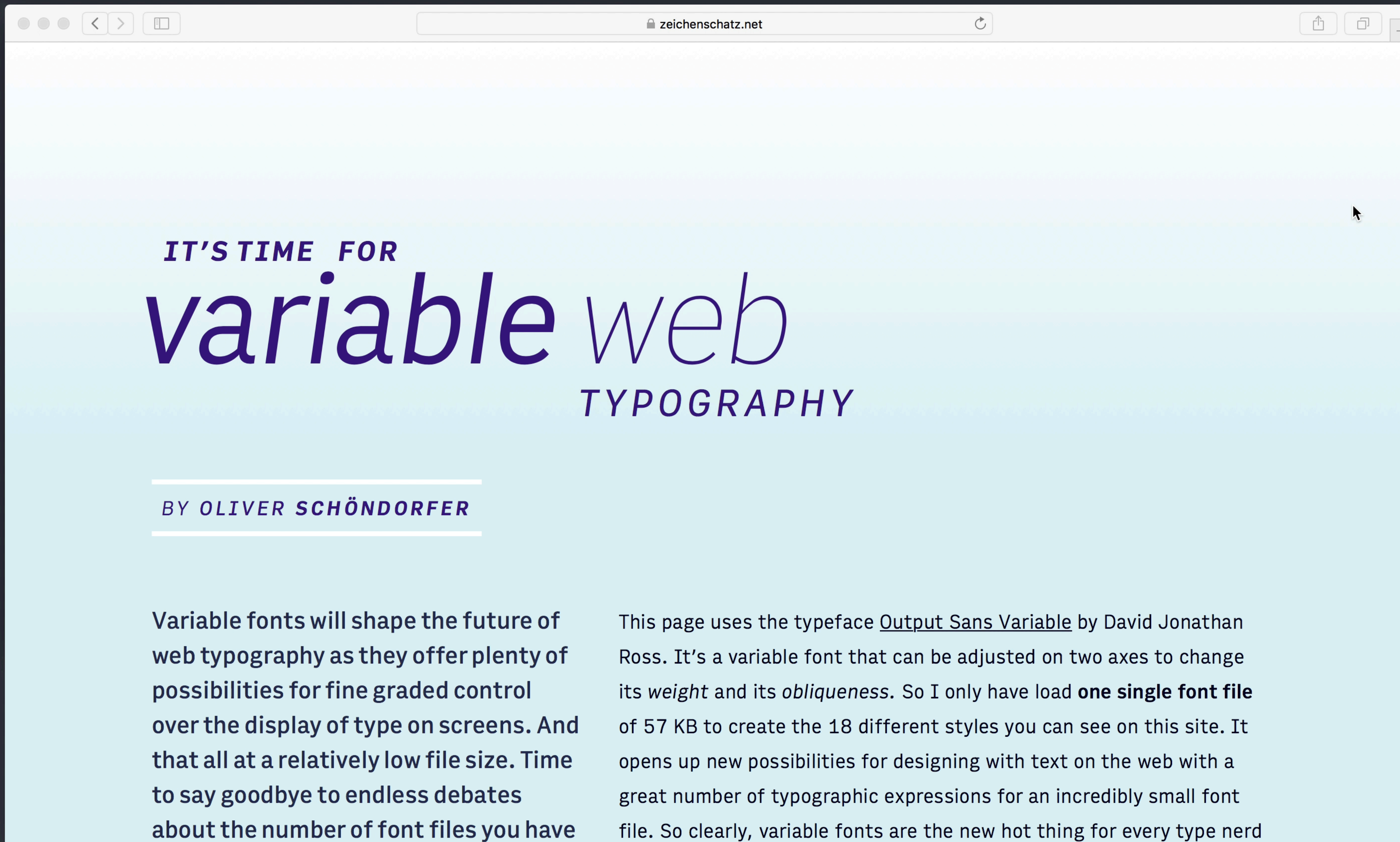
Nila 17.10.

1 Portion (im Wert von € 3,90)
Name des Kindes: (ist unbedingt auszufüllen)

NILA 19.10.







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

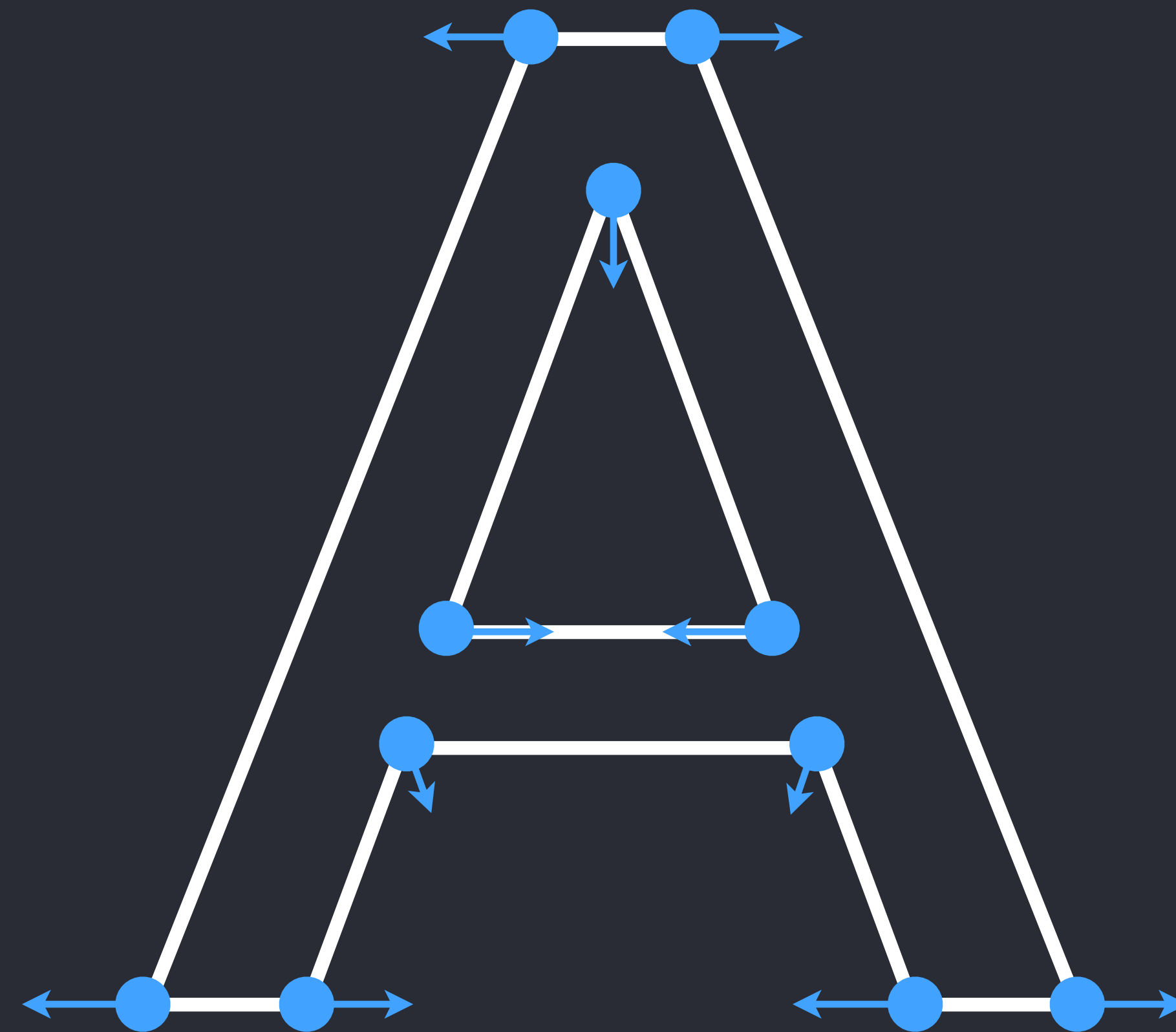
Aa

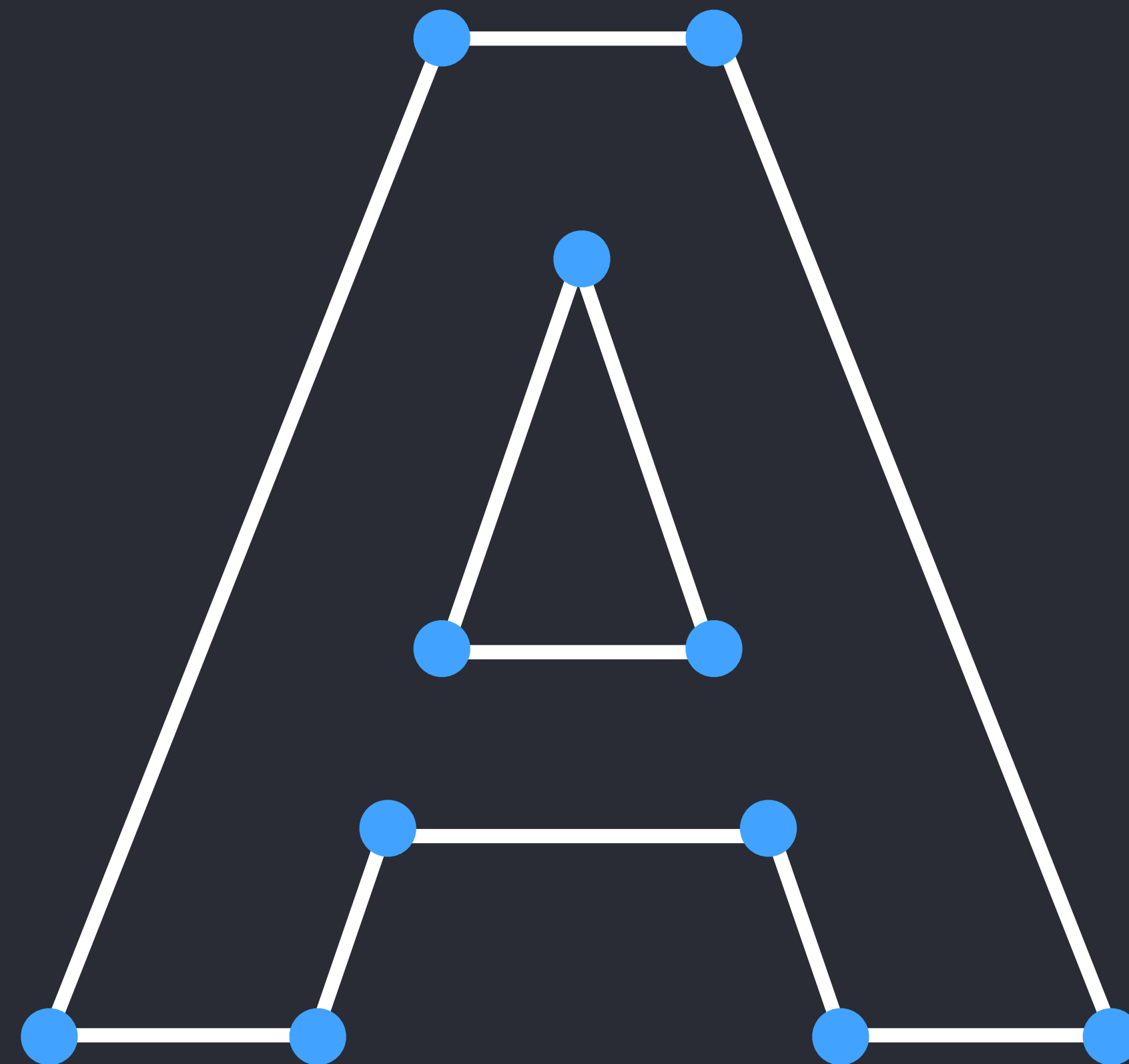
Aa

Aa

Aa

Variable font file





Aa Aa Aa Aa Aa Aa Aa Aa Aa

← Interpolation →

Named instances



Aa

Light

Aa

Aa

Regular

Aa

Aa

Medium

Aa

Aa

Bold

Aa

Aa

X-Bold



Optional designs in between

Aa Aa Aa Aa Aa

← weight axis →

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

A vertical blue double-headed arrow is positioned to the left of the text. The text 'width axis' is written vertically in blue, centered between the arrow's heads.



Using variable fonts on the web

84 %

Global support



Safari 11



Chrome 62



Edge 17



Firefox 62

95 %

**Mobile support
in Austria**



iOS Safari 11



**Chrome 67
for Android**

Variable Fonts (beta)

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 Amblard
Publisher: Black[Foundry]
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 DrawBot script for making variable animations.

Design: James T. Edmondson
Publisher: OH no Type Co.
Characters: Latin
Licensing: Paid/commercial
Info/fonts: futurefonts.xyz

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

NEW FounderType YouHei

NEW Gnomon

NEW 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

Gingher

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 font, spacing as well as the variation sliders. And type your text.



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

TEXTBOX

Textbox

summary1

Font

Voto Serif GX

Drag & drop fonts here

Font size

FONT VARIATIONS

Instance

12 1 100

Width



91.4146

Weight



99.0156

Optical Size



12

1.

Select font or
drop font file

2.

See available
axes and ranges

5

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

TISCH

STRETCH
H 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, ...
```


Good Times

ANZEIGE

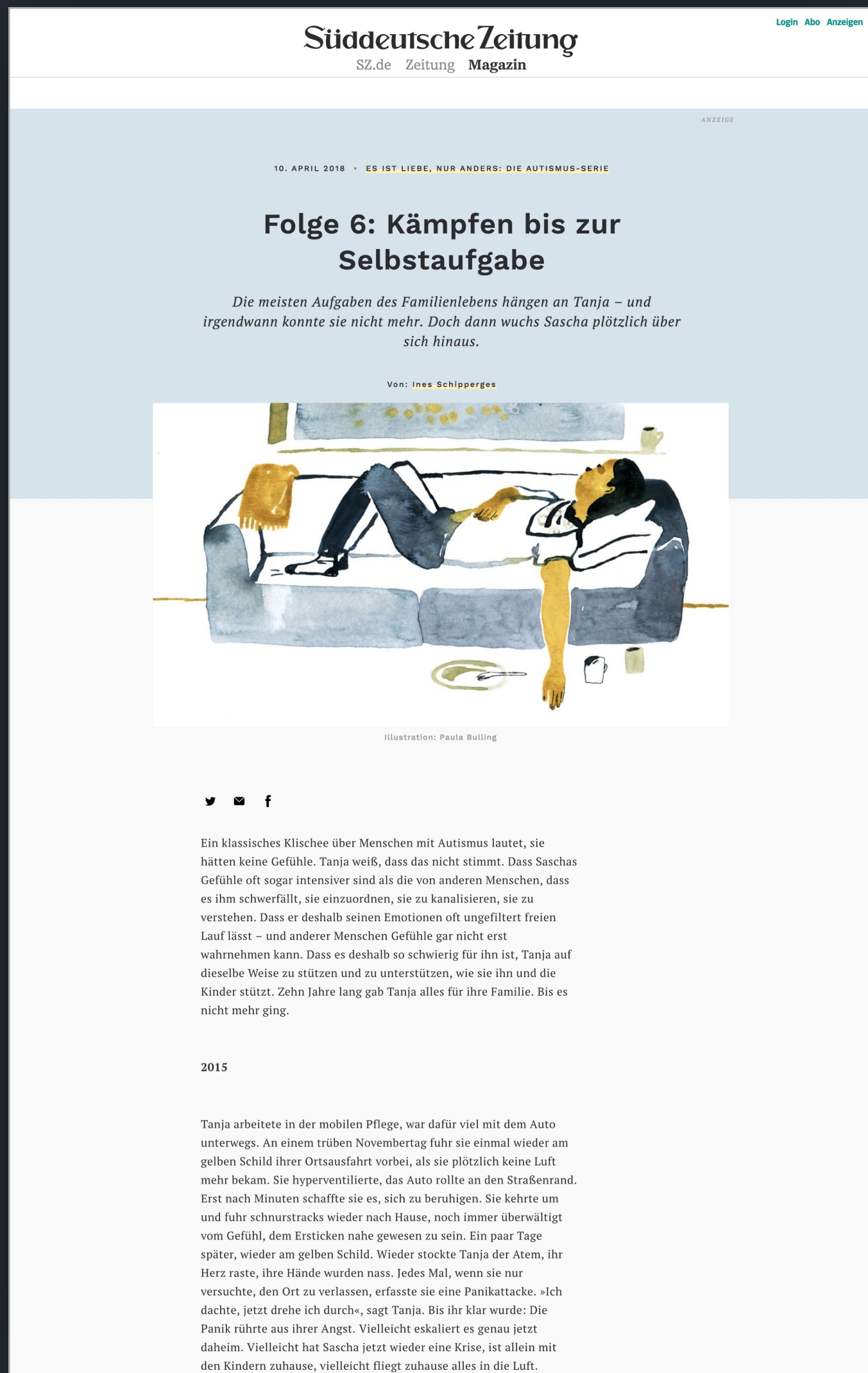
10. APRIL 2018 • ES IST LIEBE, NUR ANDERS: DIE AUTISMUS-SERIE

Folge 6: Kämpfen bis zur Selbstaufgabe

Die meisten Aufgaben des Familienlebens hängen an Tanja – und irgendwann konnte sie nicht mehr. Doch dann wuchs Sascha plötzlich über sich hinaus.

Von: Ines Schipperges





23 KB PT Serif Regular

23 KB PT Serif Bold

24 KB *PT Serif Italic*

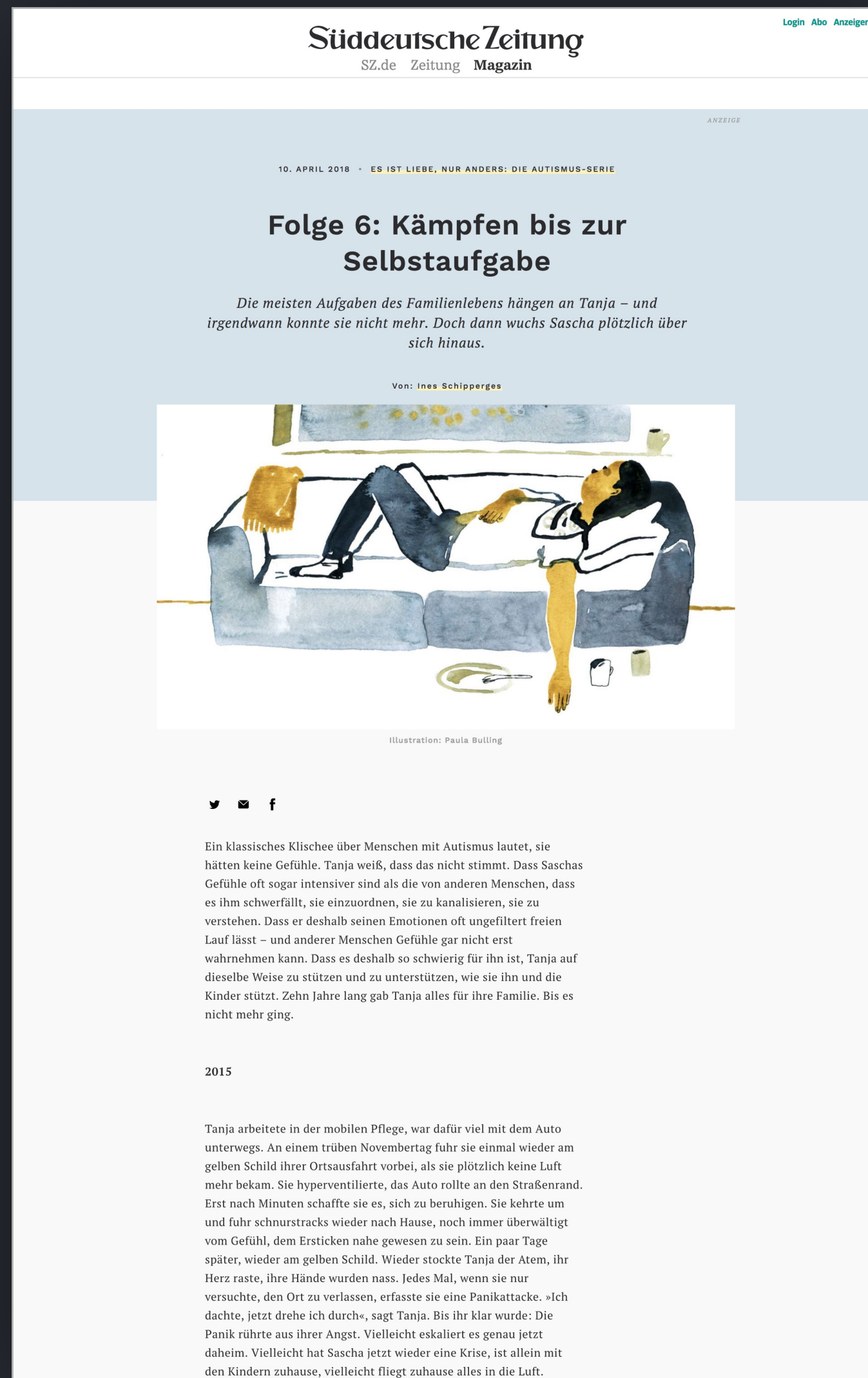
36 KB Work Sans Regular

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, Dino dos Santos

Size

0

200

Weight

60

180

▶

Serif

1

10

▶

Buying Options

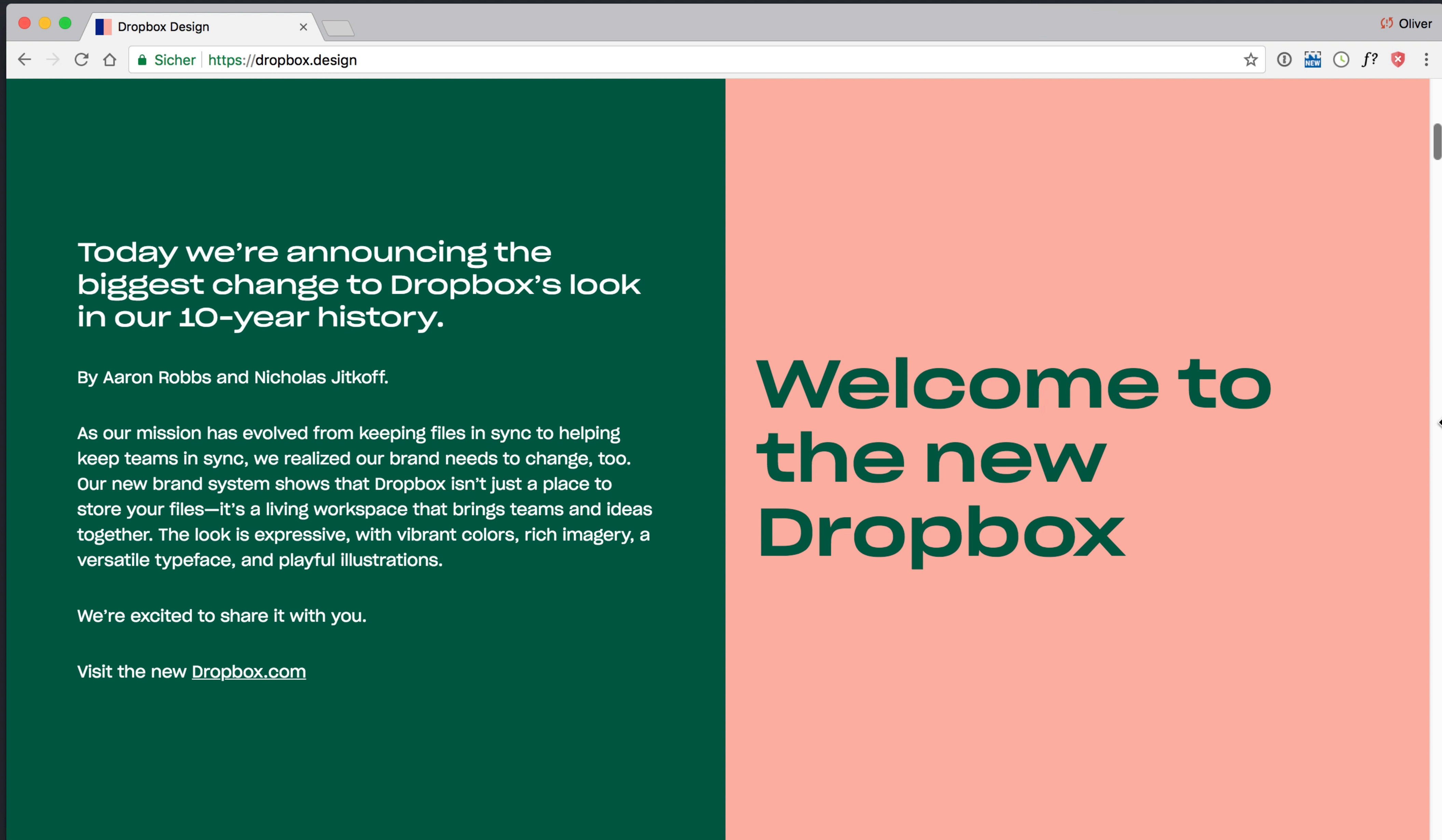
Quirky spud
boys can jam
after zapping
five worthy
Polysixes.

dstype.com/variable-fonts

 glyphe

Serif 1 ————— ● 10 ►

Quirky spud
boys can jam
after zapping
five worthy
Polysixes.



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

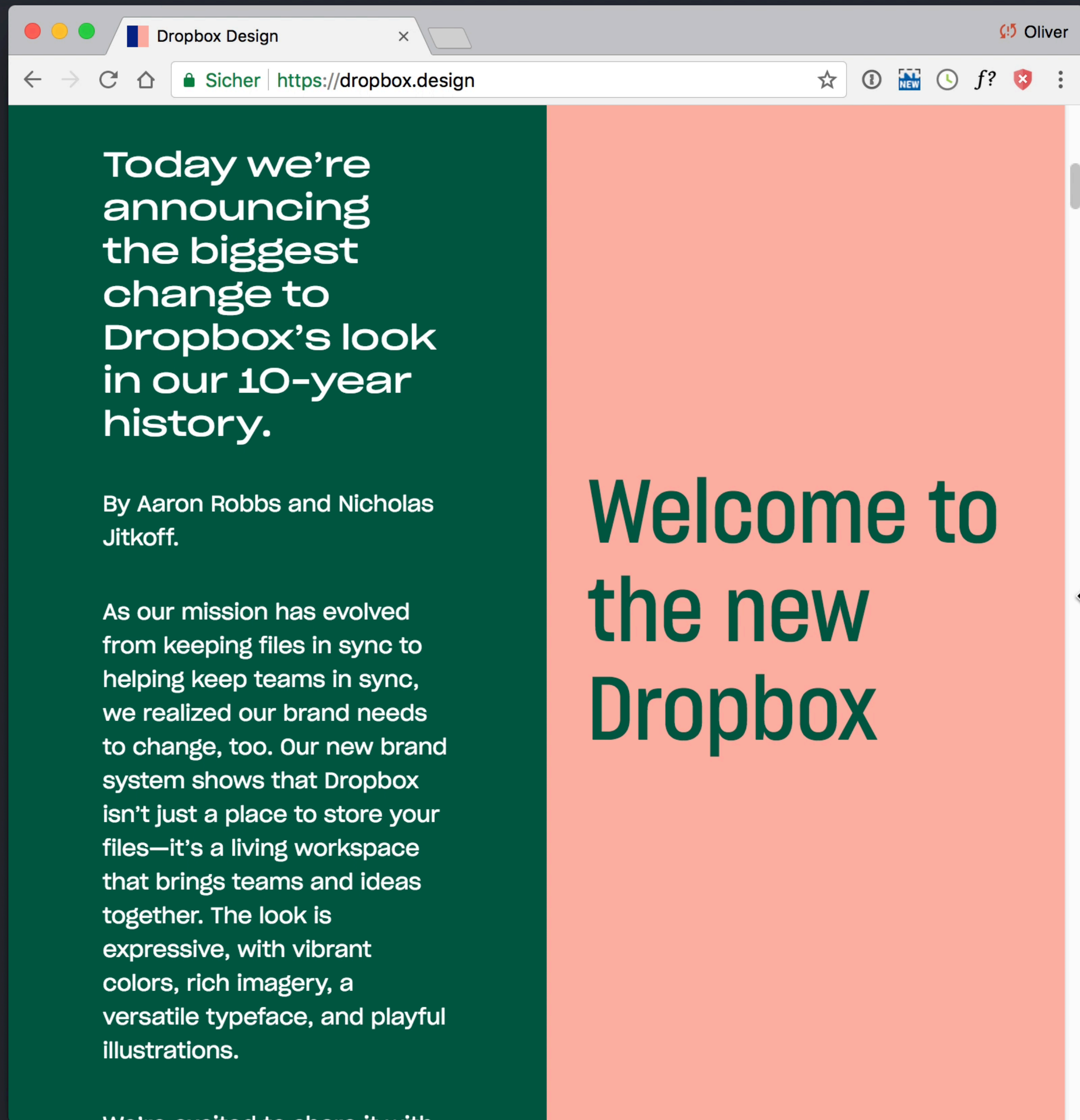
By Aaron Robbs and Nicholas Jitkoff.

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



Variable Fonts Demo | Microsoft Edge

Oliver

Sicher | https://developer.microsoft.com/en-us/microsoft-edge/testdrive/demos/variable-fonts/

Contents ▾

WEB TYPOGRAPHY

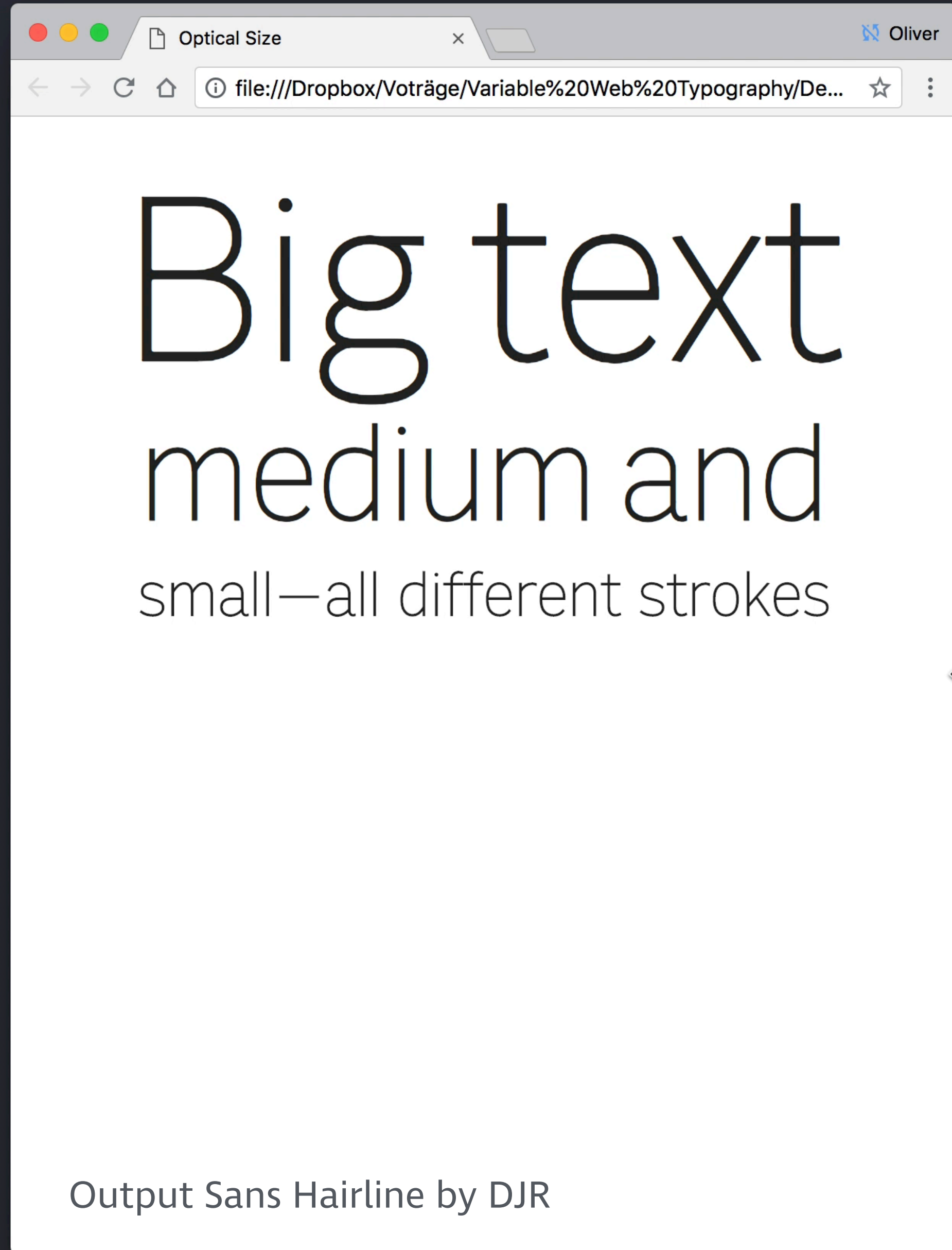
A brief history

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.

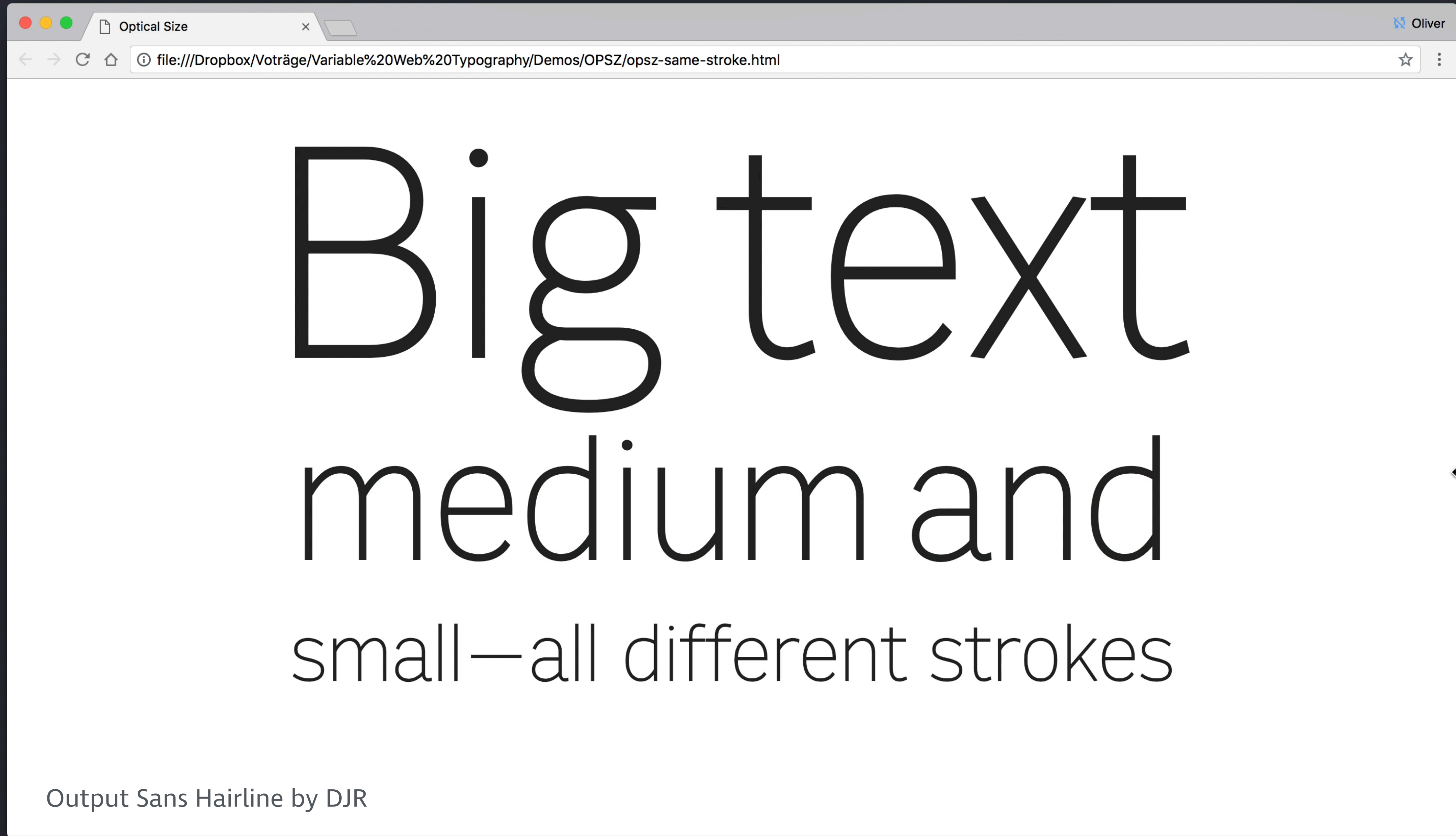
Why were web fonts so exciting for designers? Jason Pamental put it eloquently, "typography is communication" but currently the web is "all system, no soul." Web fonts teased the opportunity of bringing that "soul" to the web. Unfortunately for web fonts, to provide this soul, it comes at an

Pause animations



Chrome

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

Output Sans Hairline by DJR

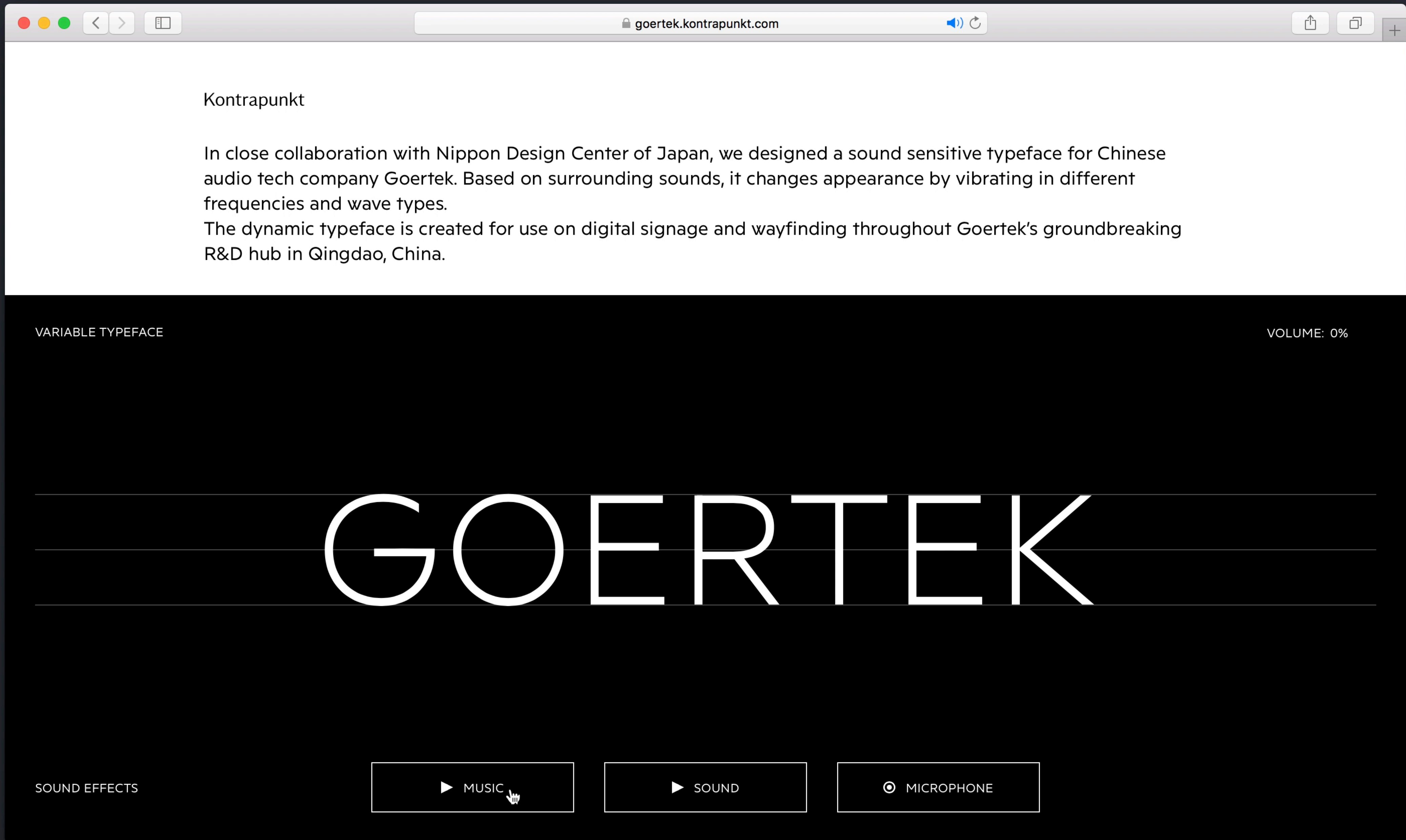


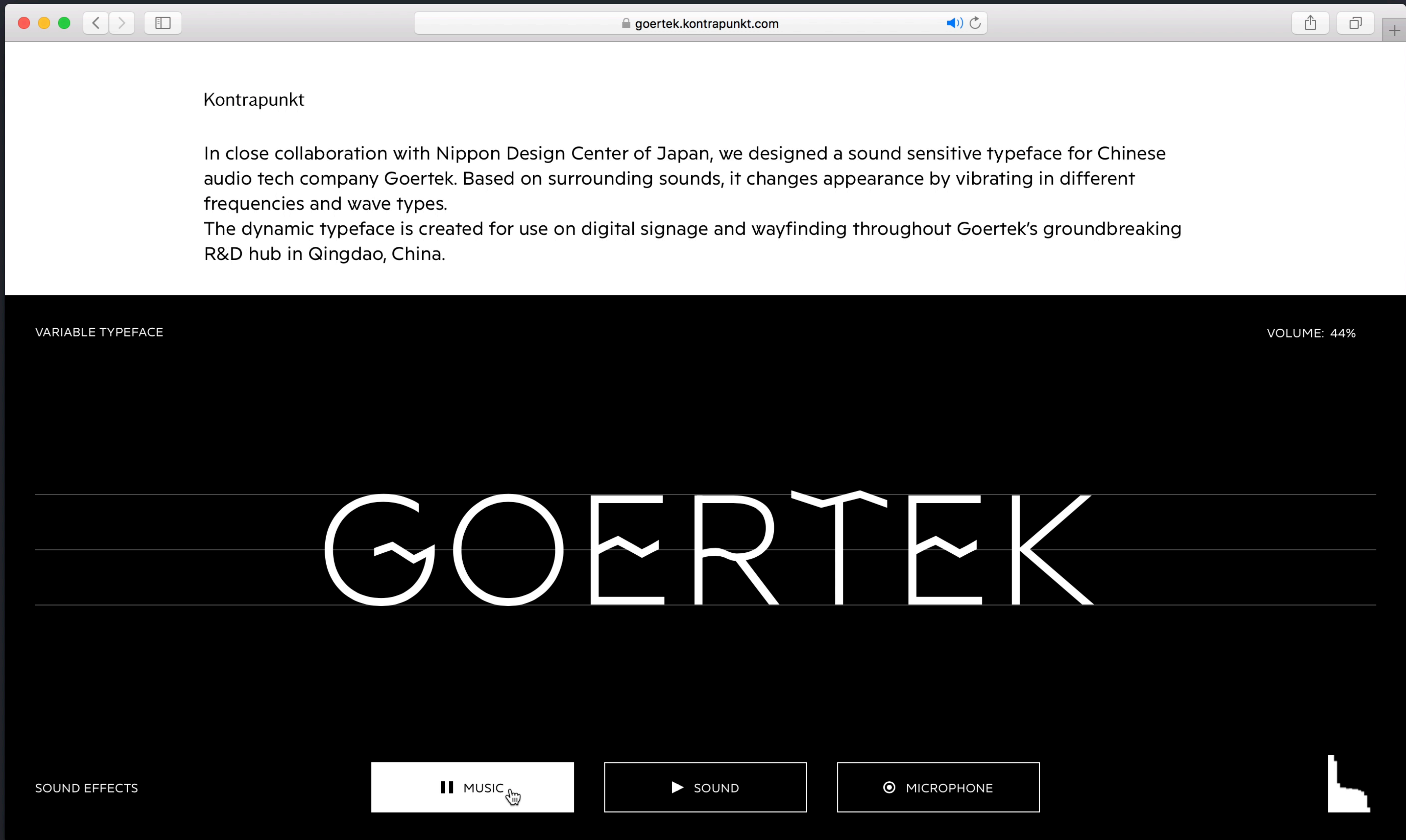
Safari

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

Big text
medium and
small—all the same stroke

Output Sans Hairline by DJR





Hand Times

Axis-Praxis: Variable Fonts in t x

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

Oliver

AXISPRAXIS

playgroundblogresourcessupport

+

▶

↺

⚙

🐦

📘

Introduction

MY SPECIMENS

Old Default

SPECIMENS

NEW

FounderType

NEW

YouHei

NEW

Gnomon

NEW

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

Textboxheading

FontAmstelvarAlpha Default

Drag & drop fonts here

Font size

Line-height

Alignment

CSSNew textboxDelete textbox

FONT VARIATIONS

Instance

Weight94.373

Width804

Optical Size48.606

x opaque157.825

x transparent291.84

y opaque50

lc y transparent500

Serif height18

Grade88

x transparent C1000

y transparent C1000

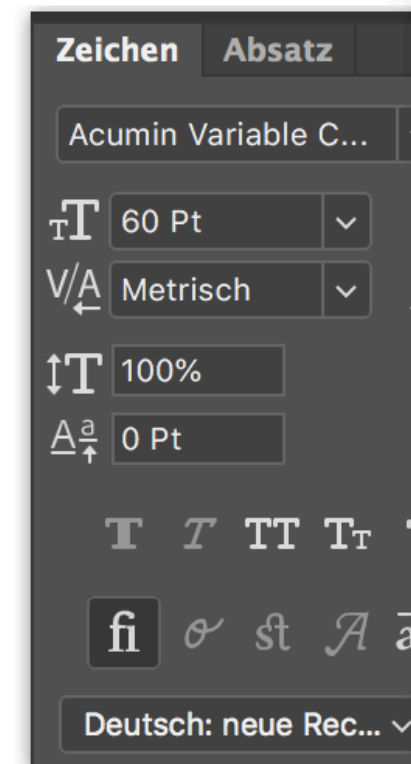
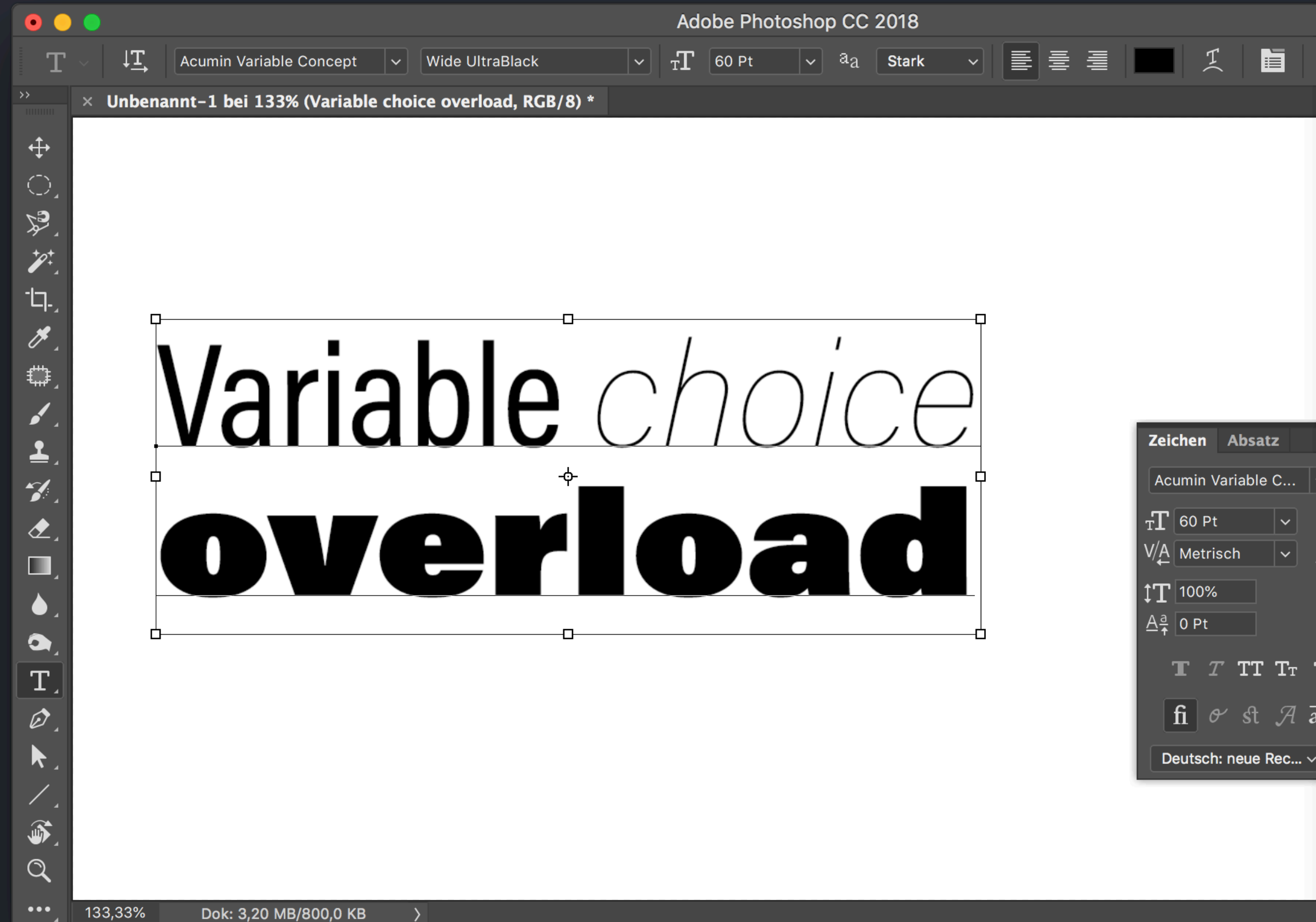
y transparent a750

y transparent d250

y transparent u750

y transparent1000

Overchoice
Many options make it harder and require much more knowledge



Condensed UltraBlack	Sample
SemiCondensed Thin	Sample
SemiCondensed ExtraLight	Sample
SemiCondensed Light	Sample
SemiCondensed	Sample
SemiCondensed Medium	Sample
SemiCondensed Semibold	Sample
SemiCondensed Bold	Sample
SemiCondensed Black	Sample
SemiCondensed UltraBlack	Sample
Thin	Sample
ExtraLight	Sample
Light	Sample
Regular	Sample
Medium	Sample
Semibold	Sample
Bold	Sample
Black	Sample
UltraBlack	Sample
Wide Thin	Sample
Wide ExtraLight	Sample
Wide Light	Sample
Wide Regular-382.717	Sample
Wide Medium	Sample
Wide Semibold	Sample
Wide Bold	Sample
Wide Black	Sample
✓ Wide UltraBlack	Sample
ExtraCondensed Thin Italic	Sample
ExtraCondensed ExtraLight Italic	Sample
ExtraCondensed Light Italic	Sample
ExtraCondensed Italic	Sample
ExtraCondensed Medium Italic	Sample
ExtraCondensed Semibold Italic	Sample
ExtraCondensed Bold Italic	Sample
ExtraCondensed Black Italic	Sample
ExtraCondensed UltraBlack Italic	Sample
Condensed Thin Italic	Sample
Condensed ExtraLight Italic	Sample
Condensed Light Italic	Sample
Condensed Italic	Sample
Condensed Medium Italic	Sample
Condensed Semibold Italic	Sample
Condensed Bold Italic	Sample
Condensed Black Italic	Sample
Condensed UltraBlack Italic	Sample
SemiCondensed Thin Italic	Sample
SemiCondensed ExtraLight Italic	Sample
SemiCondensed Light Italic	Sample
SemiCondensed Italic	Sample
SemiCondensed Medium Italic	Sample
SemiCondensed Semibold Italic	Sample
SemiCondensed Bold Italic	Sample
SemiCondensed Black Italic	Sample
SemiCondensed UltraBlack Italic	Sample
Thin Italic	Sample

90 named
instances
for Acumin
Variable in
Photoshop

Static Fonts

Variable Font

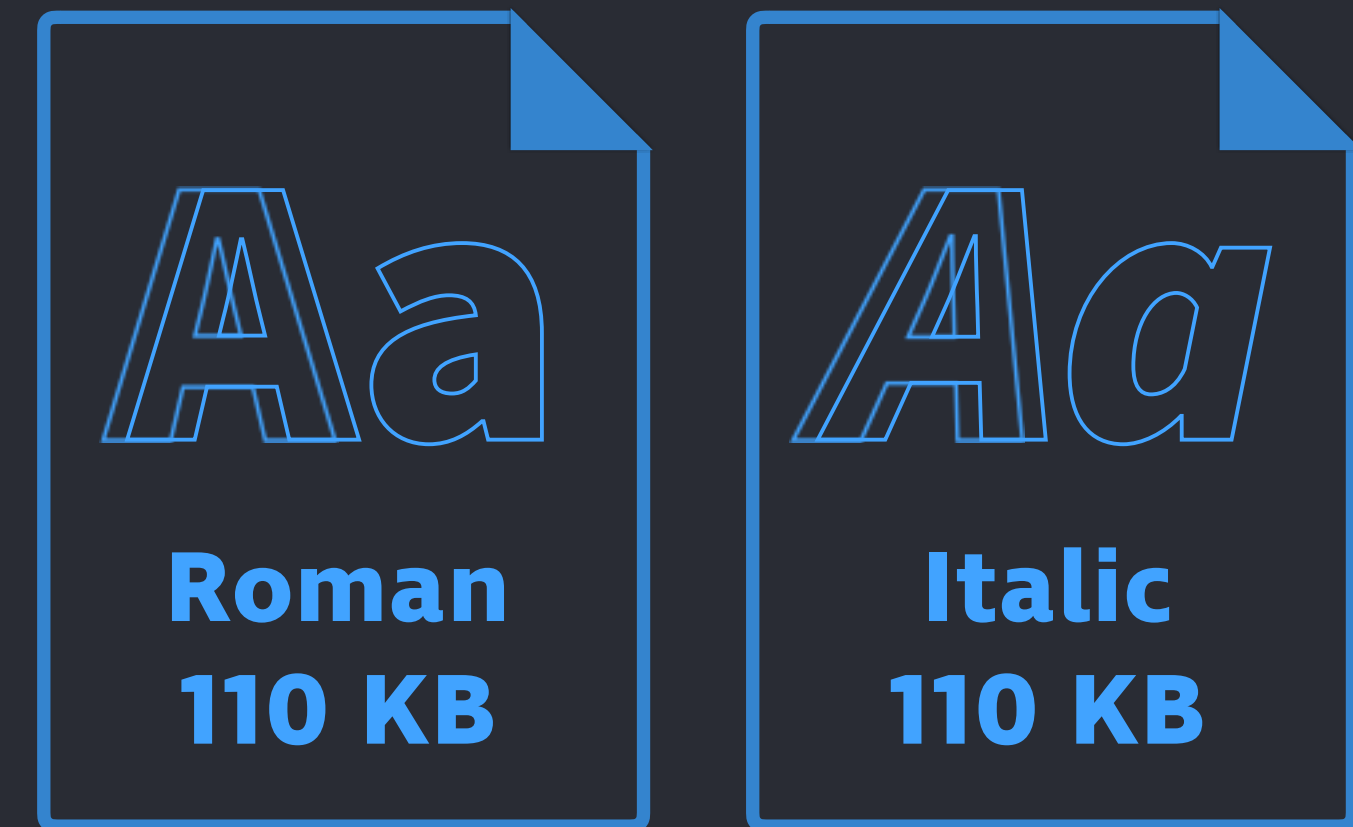


Static Fonts

Variable Font



90 KB



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](#)

[iOS App](#) [Recommend](#) [Blog](#) [Help](#) [Email Newsletter](#) [Sign Up](#)

 **Fontstand** [Download v2.2](#)

[Fonts](#) [Pricing](#) [Students](#) [Education](#) [Gift Cards](#) [Articles](#)

Aa

Foreday Superfamily

50 styles
DSType

Try

Rent

Free/ 1 hour
Desktop

Single Style €3/month
Complete €57.50/month
Desktop & Web (excl. VAT)

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 in-between typographic shapes. This way we can have a uniform typographic support for both analog and digital publications or, if digital only, from

Variable AaBbCcDdEeFfGgHhIiJjKkLlMmNnOoP

Variable Italic AaBbCcDdEeFfGgHhIiJjKkLlMmN

Serif Light AaBbCcDdEeFfGgHhIiJjKkLlMmNnOo

Serif Light Italic AaBbCcDdEeFfGgHhIiJjKkLlMm

Serif Book AaBbCcDdEeFfGgHhIiJjKkLlMmNnO

Serif Book Italic AaBbCcDdEeFfGgHhIiJjKkLlMr

Serif Medium AaBbCcDdEeFfGgHhIiJjKkLlMm

Serif Medium Italic AaBbCcDdEeFfGgHhIiJjKk

Serif Bold AaBbCcDdEeFfGgHhIiJjKkLlMmNnO

Serif Bold Italic AaBbCcDdEeFfGgHhIiJjKkL

Hosting and
Renting

fontstand.com

 glyphe

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



Drag slider to see how variable fonts work

FREE TRIAL

Buying options

CHOOSE LICENCE

- ☒ Desktop Up to 3 users
- ☐ Webfont
- ☐ App

VESTERBRO FULL FAMILY

- ☐ 12 fonts + 2 Variables **-20%** 344€

VESTERBRO ROMANS

- ☐ 6 weights + Variable **-20%** 172€

VESTERBRO ITALICS

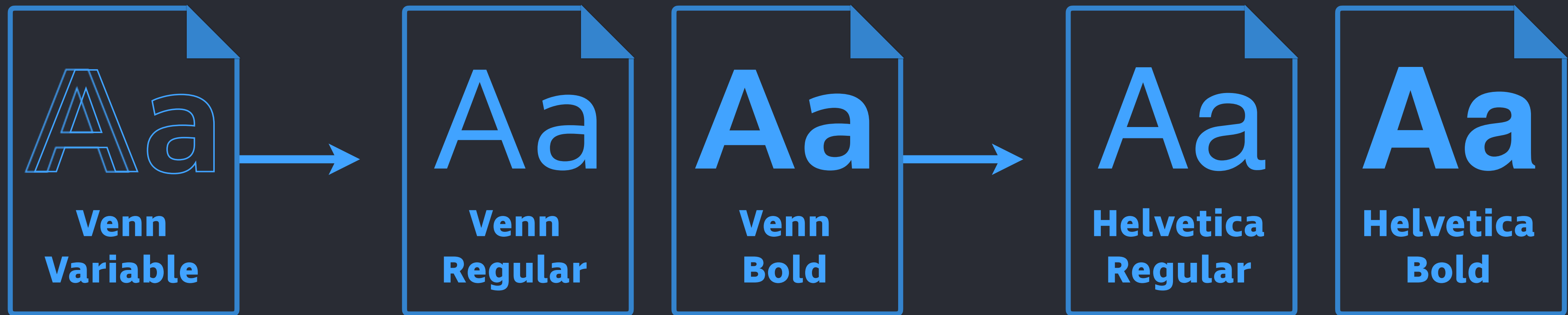
- ☐ 6 weights + Variable **-20%** 172€

INDIVIDUAL WEIGHTS

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

Retail
Add on

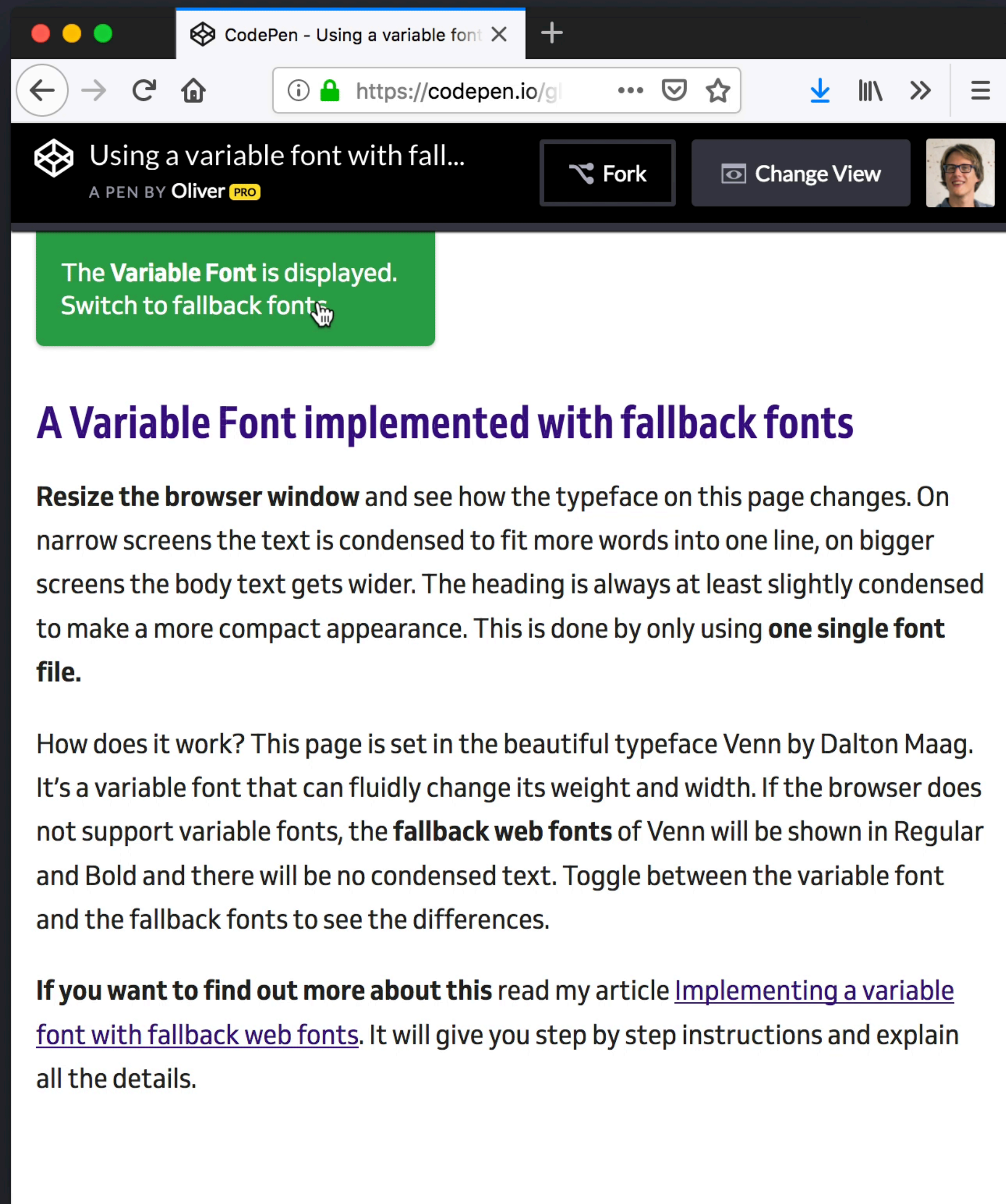
GET STARTED!



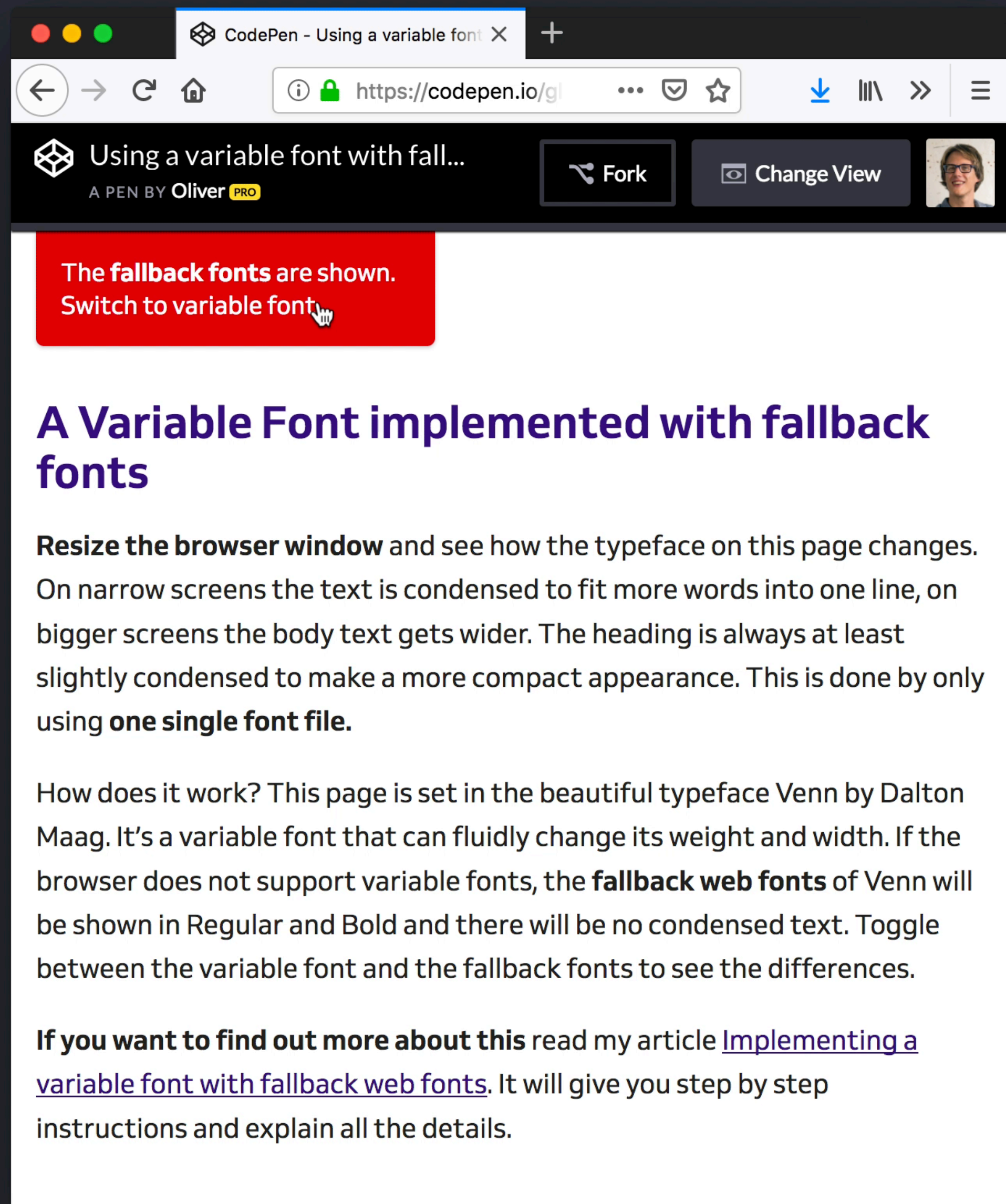
**Variable
Web Font**
First Choice

**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: "width" 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  
  }  
}
```

Variable Web Typography – Dem X

+

← → ↺ 🏠

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

📄 ⋮ 🛡️ 🗑️ ⭐

🔍 📖 ⓘ 🐞 🔄 ⓘ I ☰

IT'S TIME FOR

variable web

TYPOGRAPHY

BY OLIVER SCHÖNDORFER

Deactivate variable fonts

🔍 Inspektor

Konsole

Debugger

{ } Stilbearbeitung

🕒 Laufzeitanalyse

📁 Speicher

🔗 Netzwerkanalyse

📁 Web-Speicher

📄 ⋮ ✕

+

🔍 HTML durchsuchen

✎

🔍 Stile filtern

+

📄 .cls

📄 Layout

Berechnet

Animationen

Schriftarten

<!DOCTYPE html>

<html class="gr_zeichenschatz_net" lang="en">

<head>

<body id="page" class="variable" data-gr-c-s-loaded="true">

<div class="browser-info">

<header class="header">

<div class="wrapper">

<h1 class="title">

It's time

for

variable

ly#page.variable > header.header > div.wrapper > h1.title > span.title__variable-web > span.title__variable-web__variable >

Element {

font-variation-settings: "wght" 600, "slnt" 8;

.variable variable-web-typography-style.css:484

.title__variable-web__variable {

font-variation-settings: "wght" 400, "slnt" 8;

.title, .title variable-web-typography-style.css:184

* {

transition: none;

* {

variable-web-typography-style.css:43

transition: all 0.15s ease-out;

Geerbt von span

...graphy-style.css:479 @screen and (min-width: 50em)

Familie

Output Sans VF

Output Sans Regular

https://zeichenschatz.net/demos/vf/font... 📄

▶ Unused font families

Instanz

Benutzerdefiniert

Size

128 px

Line height

0,9

Weight

660

Slant

8

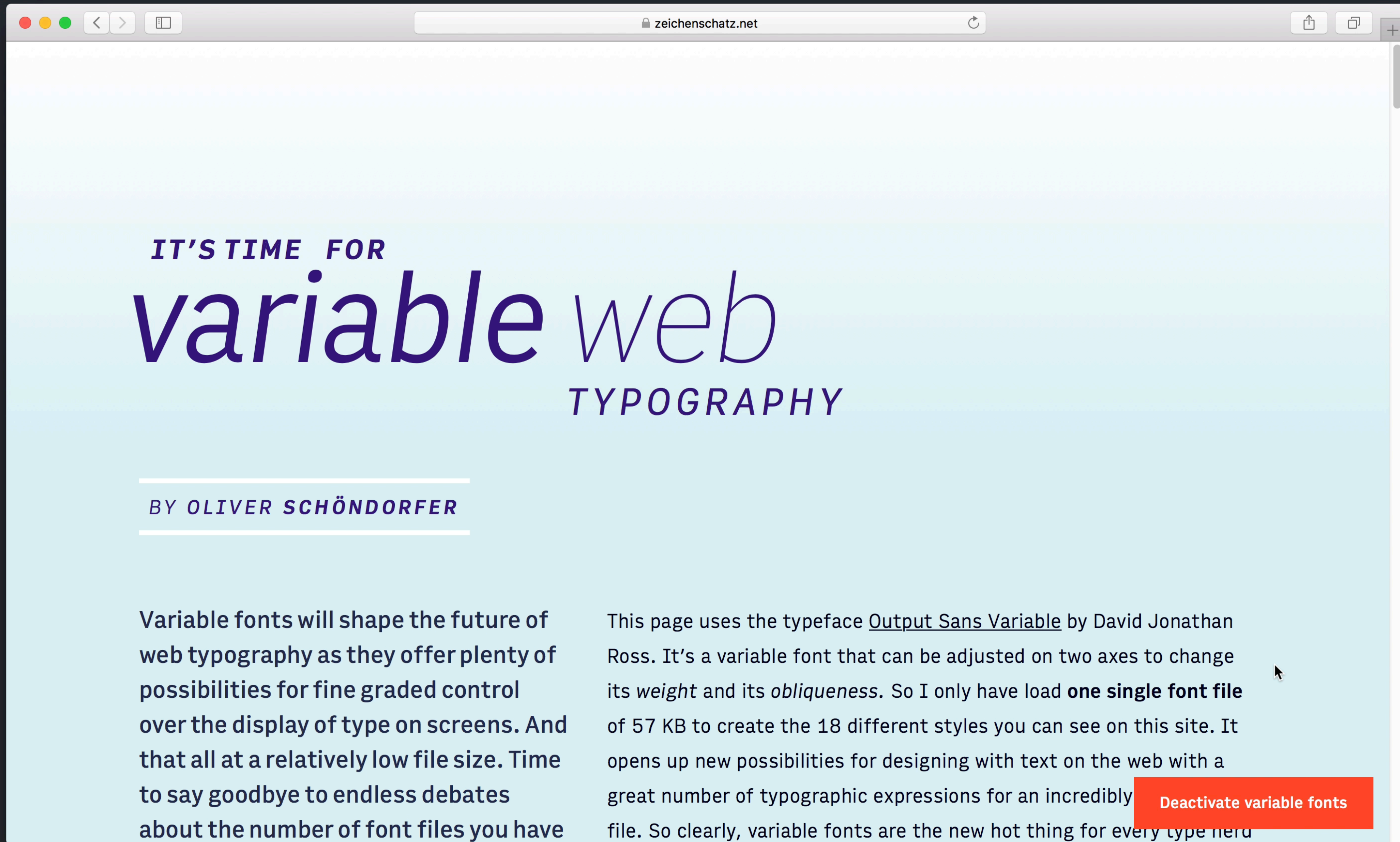
Firefox 63
DevTools

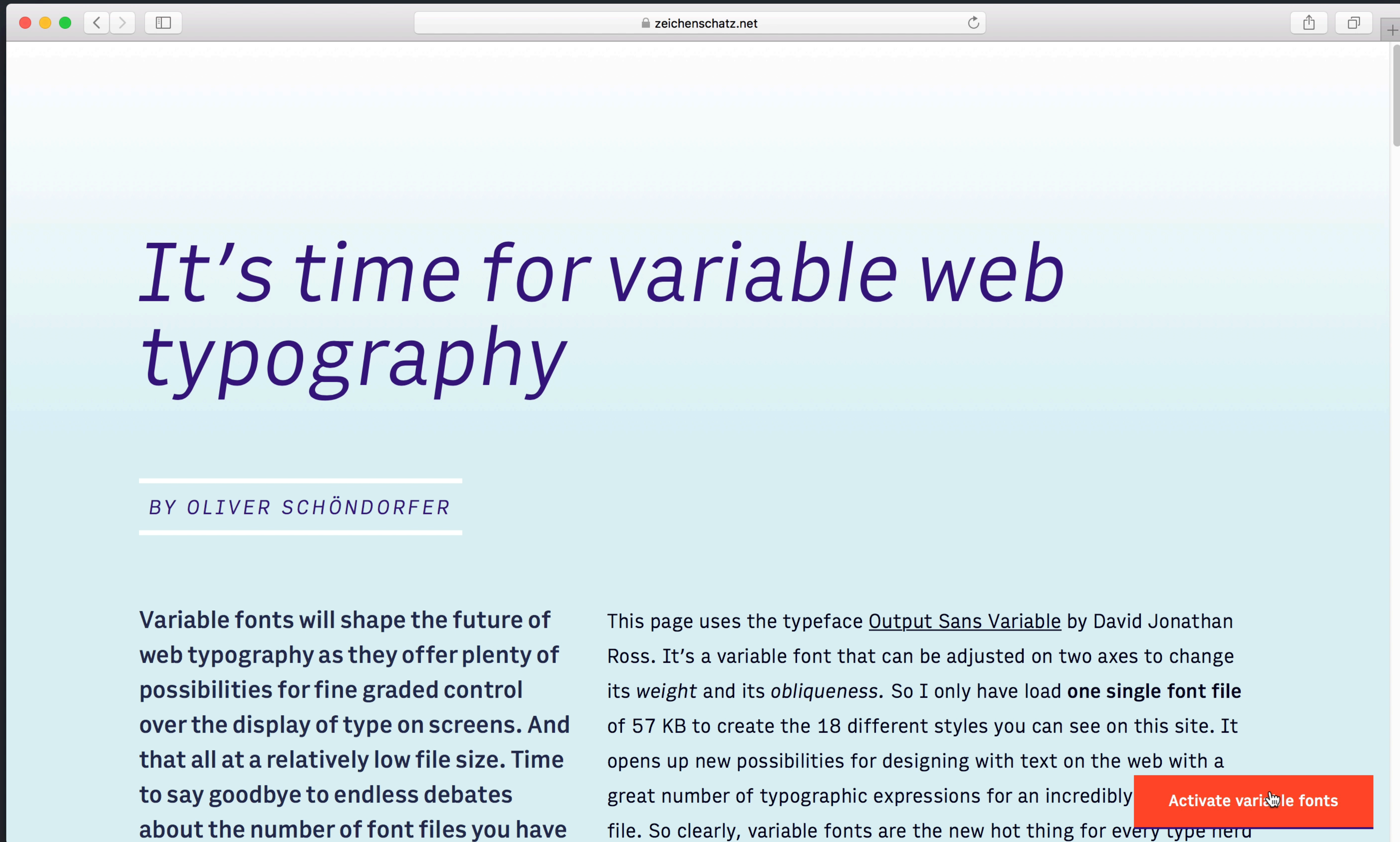
Summing up

- **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





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.

↑
th axis

Aa Aa Aa Aa Aa

Aa Aa Aa Aa Aa

Aa Aa Aa Aa Aa

Deactivate variable fonts

18

font styles out of
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A quick introduction
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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.

↑
axis

Aa Aa Aa Aa Aa

Aa Aa Aa Aa Aa

Aa Aa Aa Aa Aa

Activate variable fonts

Be more variable

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