

# Painting

## With

### the new web

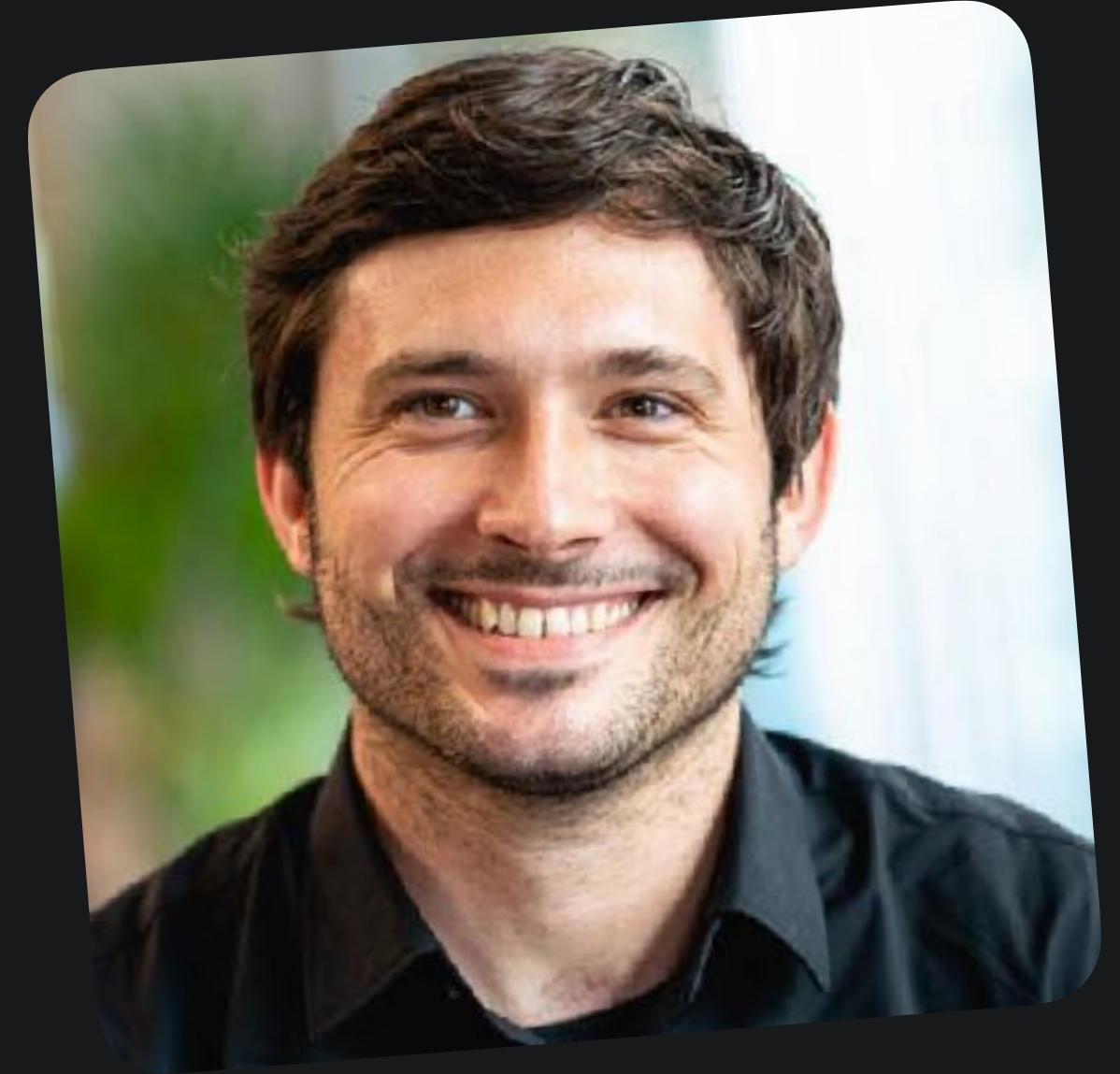
» Matthias Ott  
Smashing Conference  
Freiburg 2025

# Matthias Ott

User Experience Designer

Web Design Engineer

Teacher for Interface Prototyping,  
Muthesius University of Fine Arts and Design



@matthiasott@mastodon.social

<https://matthiasott.com>

# OWN YOUR

ownyourweb.site

# WEB







The ultimate  
creative process.  
A constant  
conversation.

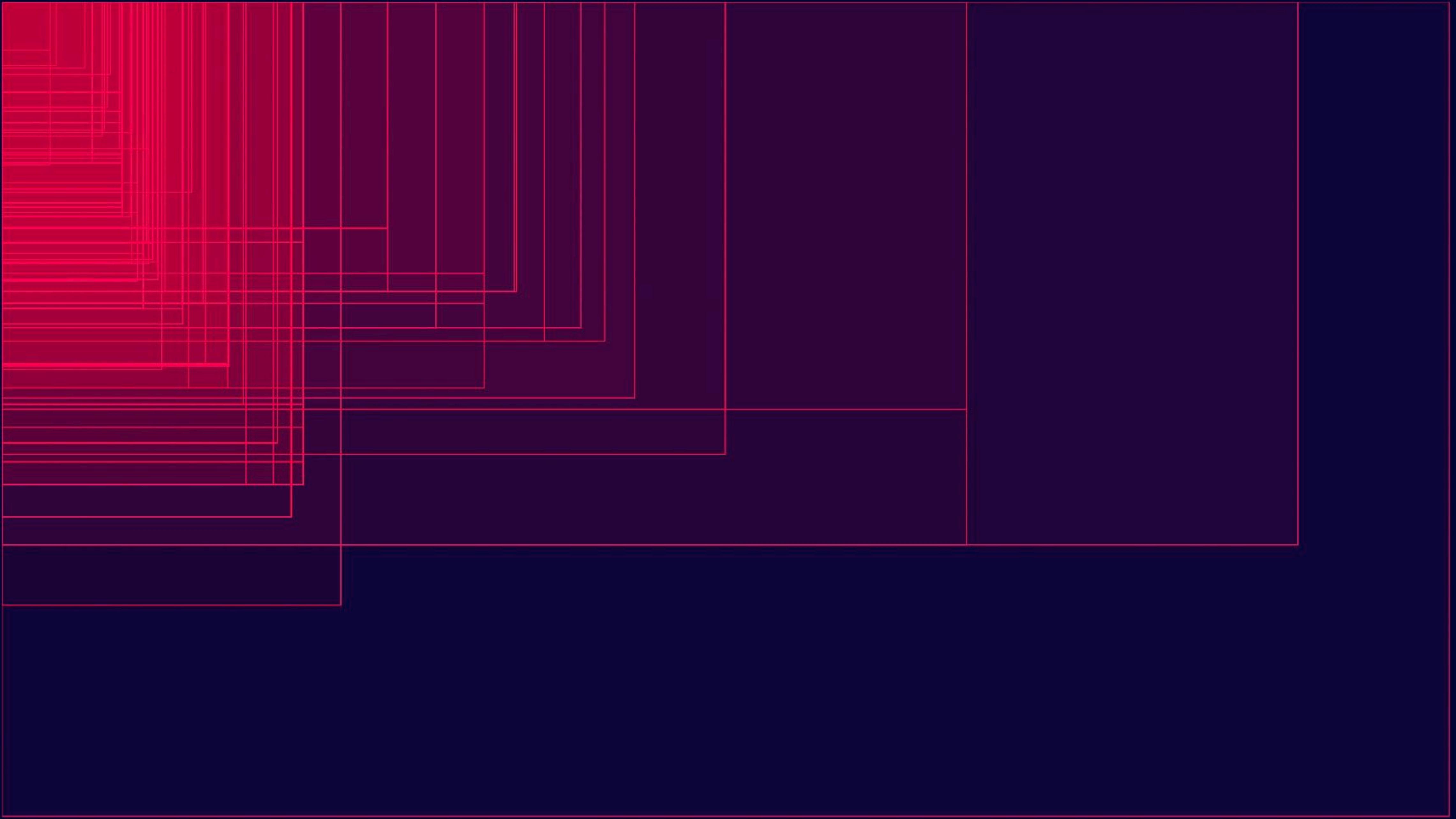




The  
canvas

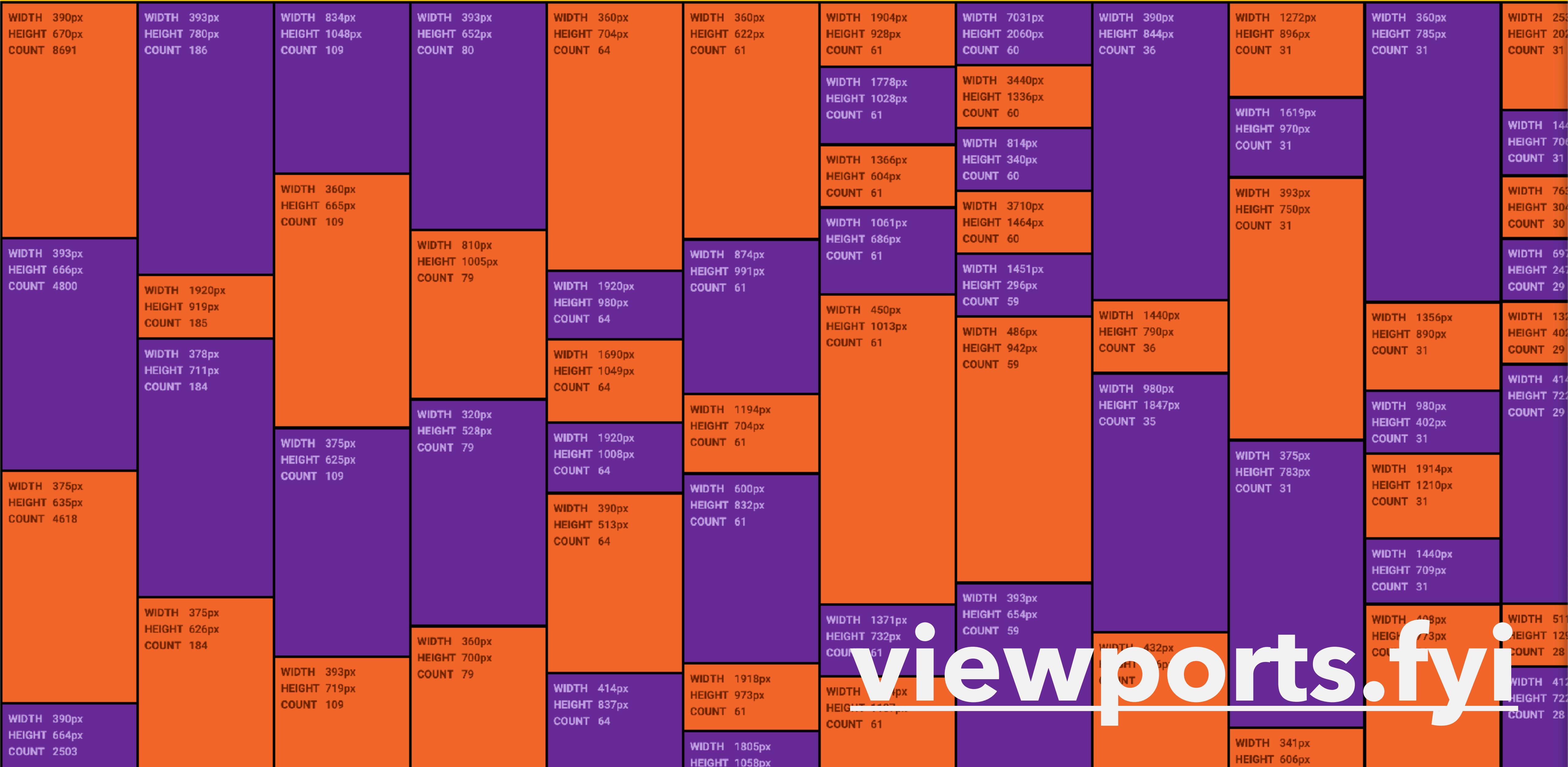


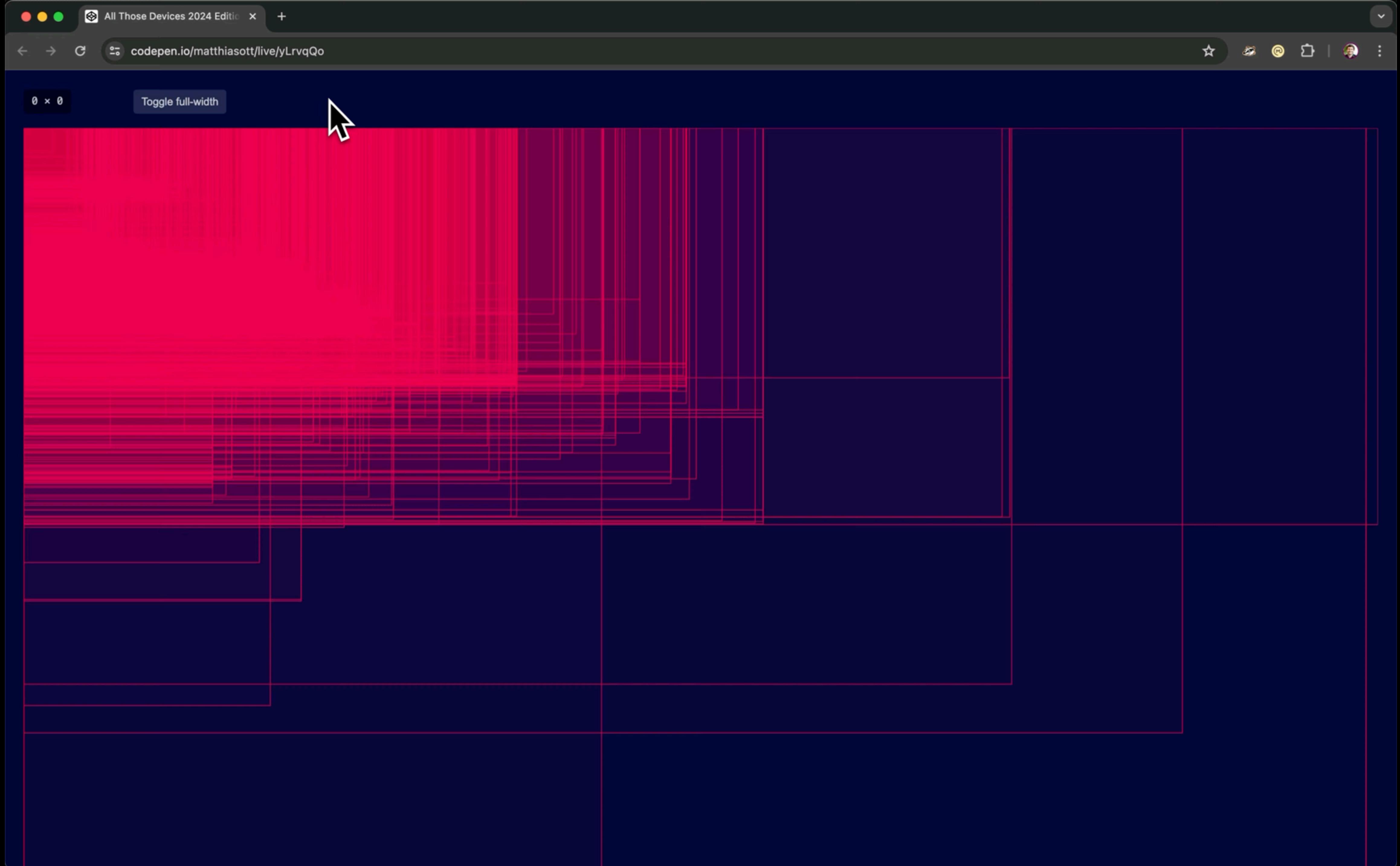
Photo: Brad Frost, 2012

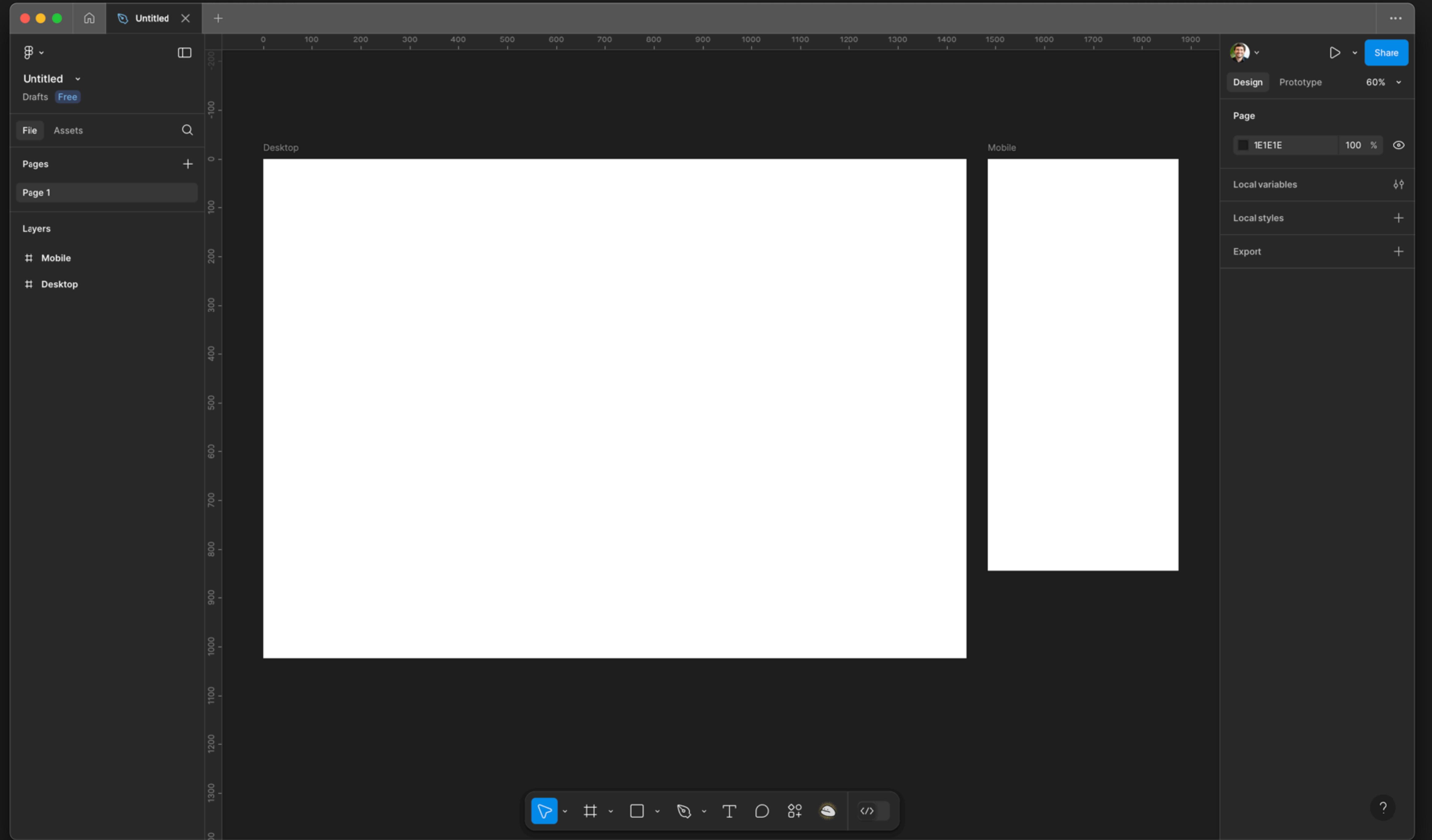




← BACK







Responsive Web Design – A | X +

alistapart.com/article/responsive-web-design/ 

ARTICLES EVENTS TOPICS WRITE FOR US LANGUAGE (ENGLISH) ▾ 

# A LIST APART



Issue №  
**306**

## Responsive Web Design

by [Ethan Marcotte](#) · May 25, 2010

Published in CSS, Interaction Design, Layout & Grids, Mobile/Multidevice, Responsive Design

**"The control which designers know in the print medium, and often desire in the web medium, is simply a function of the limitation of the printed page. We**

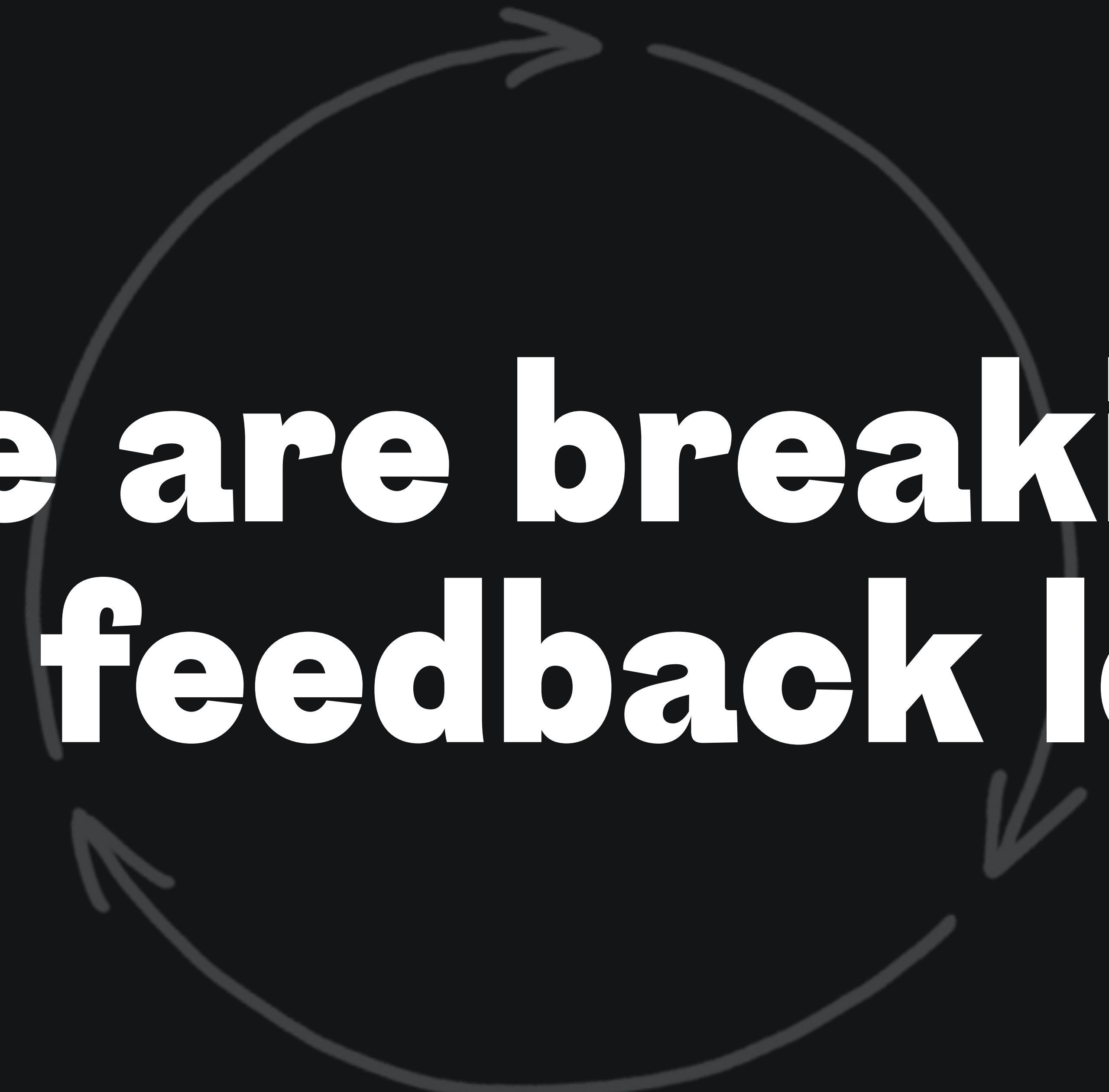
<https://alistapart.com/article/responsive-web-design/>

We are still  
painting static  
pictures of  
websites

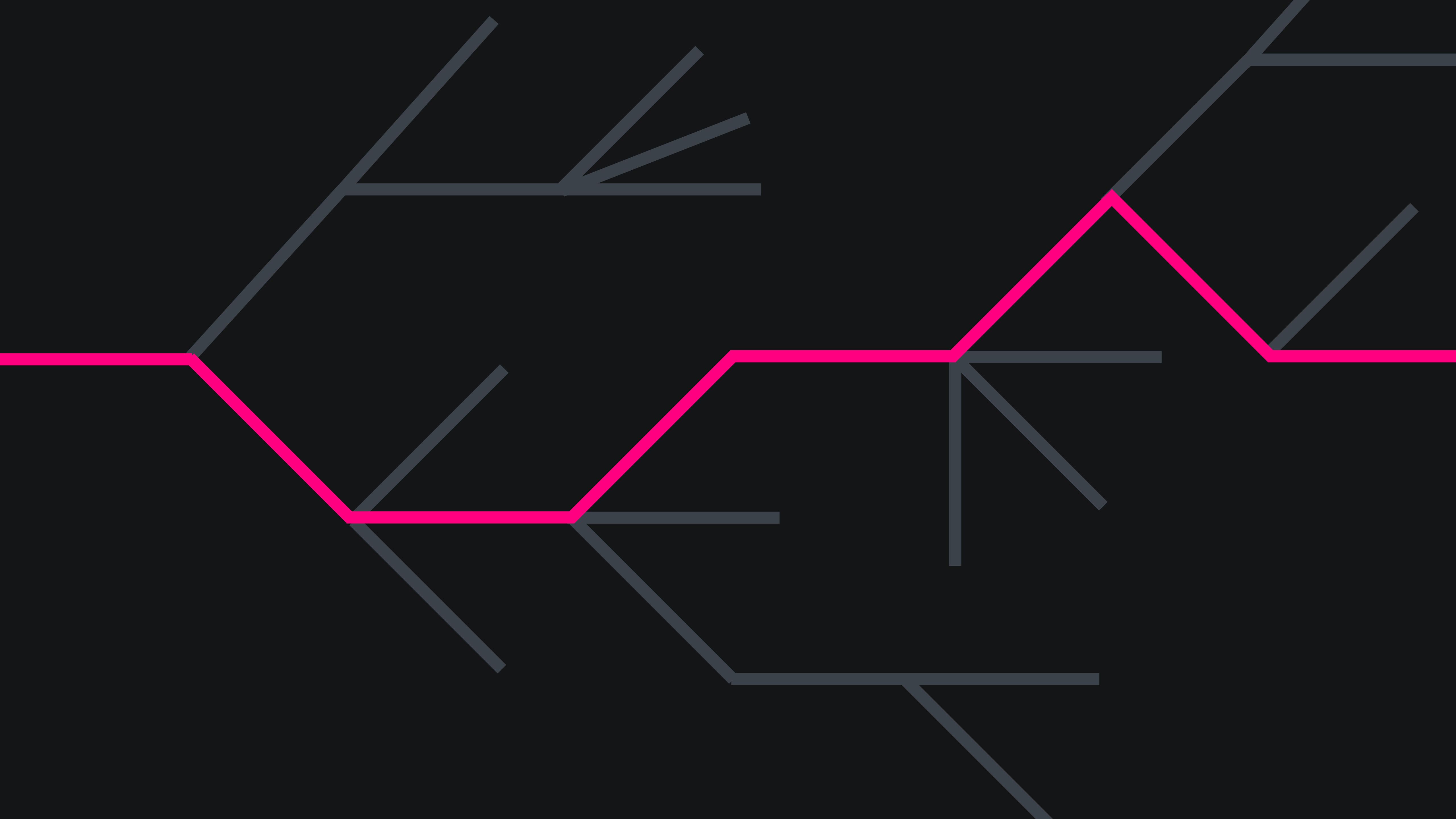
We are still  
painting static  
pictures of  
components

**the  
Material**

We have a broken  
relationship with  
the material



**We are breaking  
the feedback loop**



**:has()**  
**Container Queries**  
**min(), max(), clamp()**  
**Custom Properties**  
**Intrinsic Sizing Keywords**  
**Trigonometric Functions**  
**Subgrid**  
**ViewTransitions**  
**Blend Modes**  
**Logical Properties**  
**CSS Filter Effects**  
**Popover API**  
**aspect-ratio**  
**:is() and :where()**  
**@property**  
**conic-gradient()**

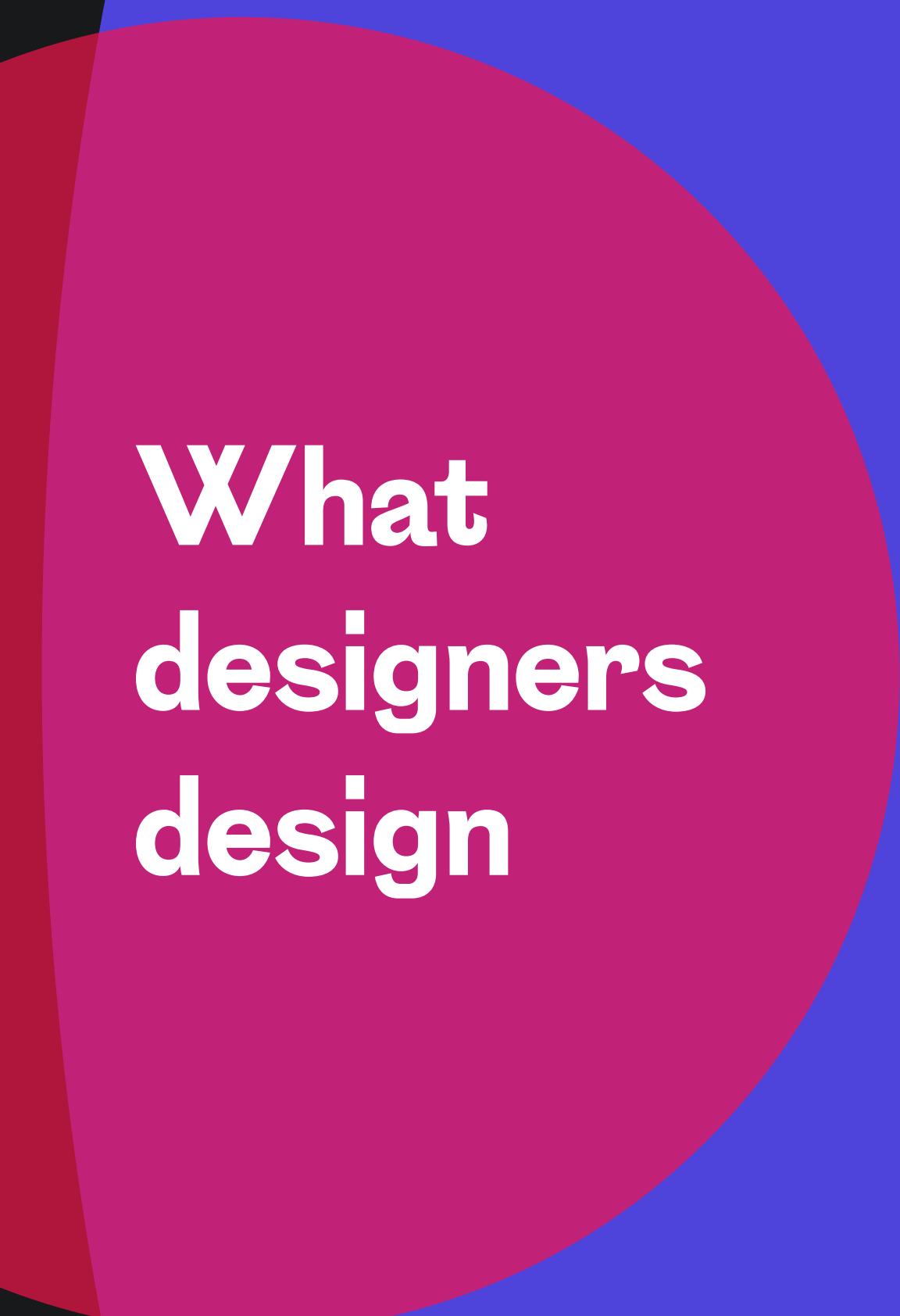
**Animation-start**  
**linear() Easing Function**  
**CSS Motion Path**  
**Anchor Positioning**  
**color()**  
**color-mix()**  
**Scroll Snap**  
**CSS Nesting**  
**light-dark()**  
**overscroll-behavior**  
**touch-action**  
**scroll-behavior**  
**scrollbar-gutter**  
**Variable Fonts**  
**font-palette**  
**text-wrap: balance**

**css is now  
the most powerful  
design tool  
for the Web.**



What  
designers  
design

What's possible  
with the Web  
platform today



What  
designers  
design

What's possible  
with the Web  
platform today

“What would happen if we stopped treating the Web like a blank canvas to paint on, and started treating it like a material to build with?”



**Frank Chimero, “The Web’s Grain”**

<https://frankchimero.com/blog/2015/the-webs-grain/>

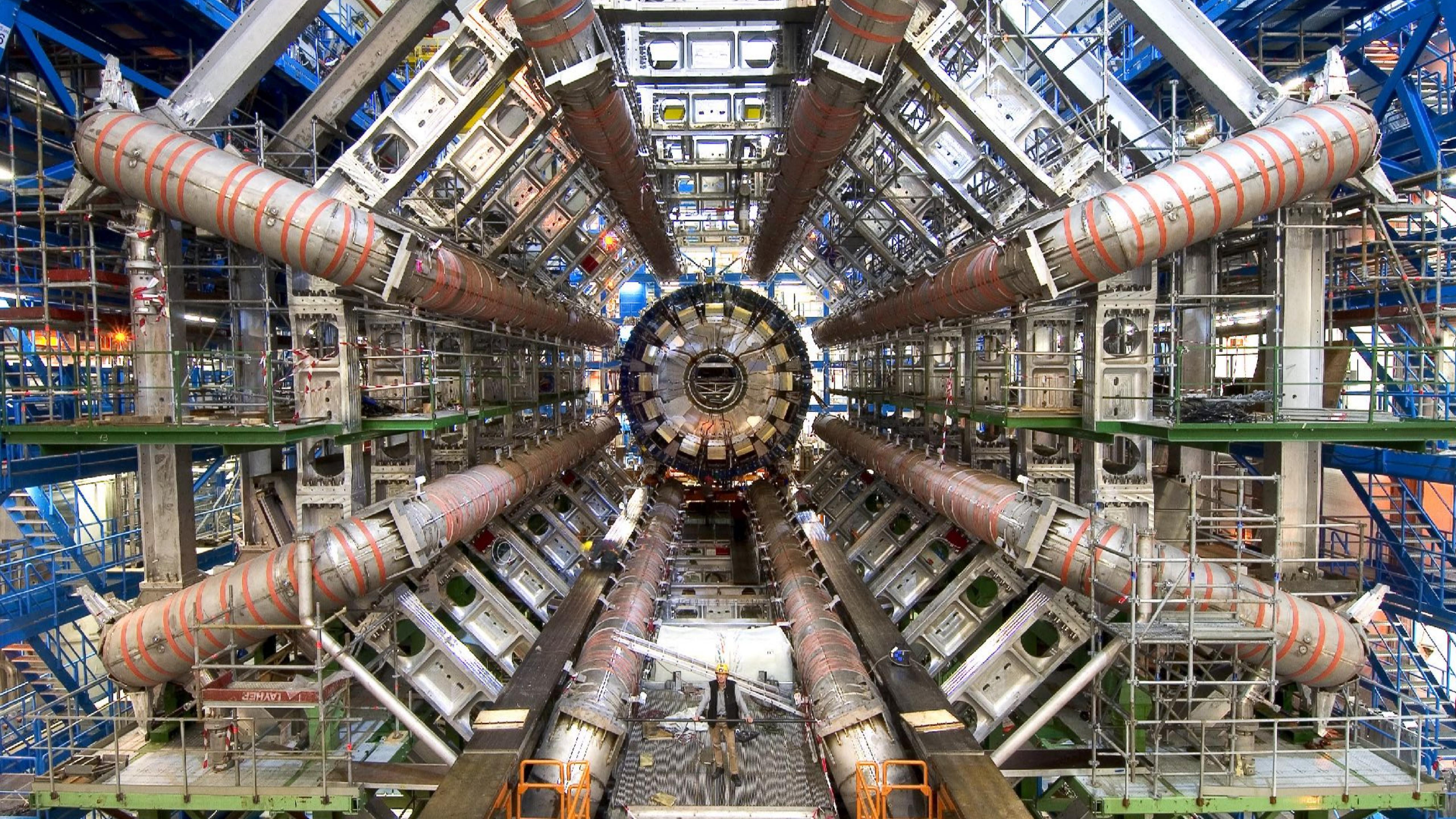
The Web  
as a design  
material?



# Tim Berners-Lee











# Tim Berners-Lee



We should work toward a universal linked information system, in which generality and portability are more important than fancy graphics techniques and complex extra facilities.

Information Management: A Proposal, 1989

```
<div class="max-w-7xl mx-auto px-4 sm:px-6 md:px-8 mt-20 sm:mt-24  
lg:mt-32">  
  <div class="relative row-start-1 col-start-6 xl:col-start-7 col-span-7  
  xl:col-span-6">  
    <div class="-mx-4 sm:mx-0">  
      <div class="relative overflow-hidden shadow-xl flex bg-slate-800 h-[31.625rem] max-h-[60vh] sm:max-h-[none] sm:rounded-xl lg:h-[34.6875rem] xl:h-[31.625rem] dark:bg-slate-900/70 dark:backdrop-blur  
      dark:ring-1 dark:ring-inset dark:ring-white/10 !h-auto max-h-[none]">  
        <div>  
          web development is my passion  
        </div>  
      </div>  
    </div>  
  </div>  
</div>
```



# Tim Berners-Lee



# Tim Berners-Lee



# Håkon Wium Lie

# Cascading HTML style sheets -- a proposal

[Håkon W Lie](#)

[howcome@info.cern.ch](mailto:howcome@info.cern.ch)

10 Oct 1994

---

v0.92 This document describes work in progress and is incomplete as a basis for implementation. Its primary purpose is to establish guiding principles and propose a level of functionality for HTML style sheets. Comments are solicited.

---

## Abstract

This document proposes a style sheet scheme for HTML documents. The proposed scheme provides a simple mapping between HTML elements and presentation hints. Properties like font family and window size can be suggested by the style sheet, and it can also provide logic to make presentation decisions based on the user's environment; e.g. the size of the screen or the current date.

The style sheet scheme is designed so that style sheets can be cascaded; the user/browser specifies initial preferences and hands the remaining influence over to the style sheets referenced in the incoming document. This will provide publishers with stylistic influence without resorting to page description languages.

The scheme supports visual as well as non-visual media.

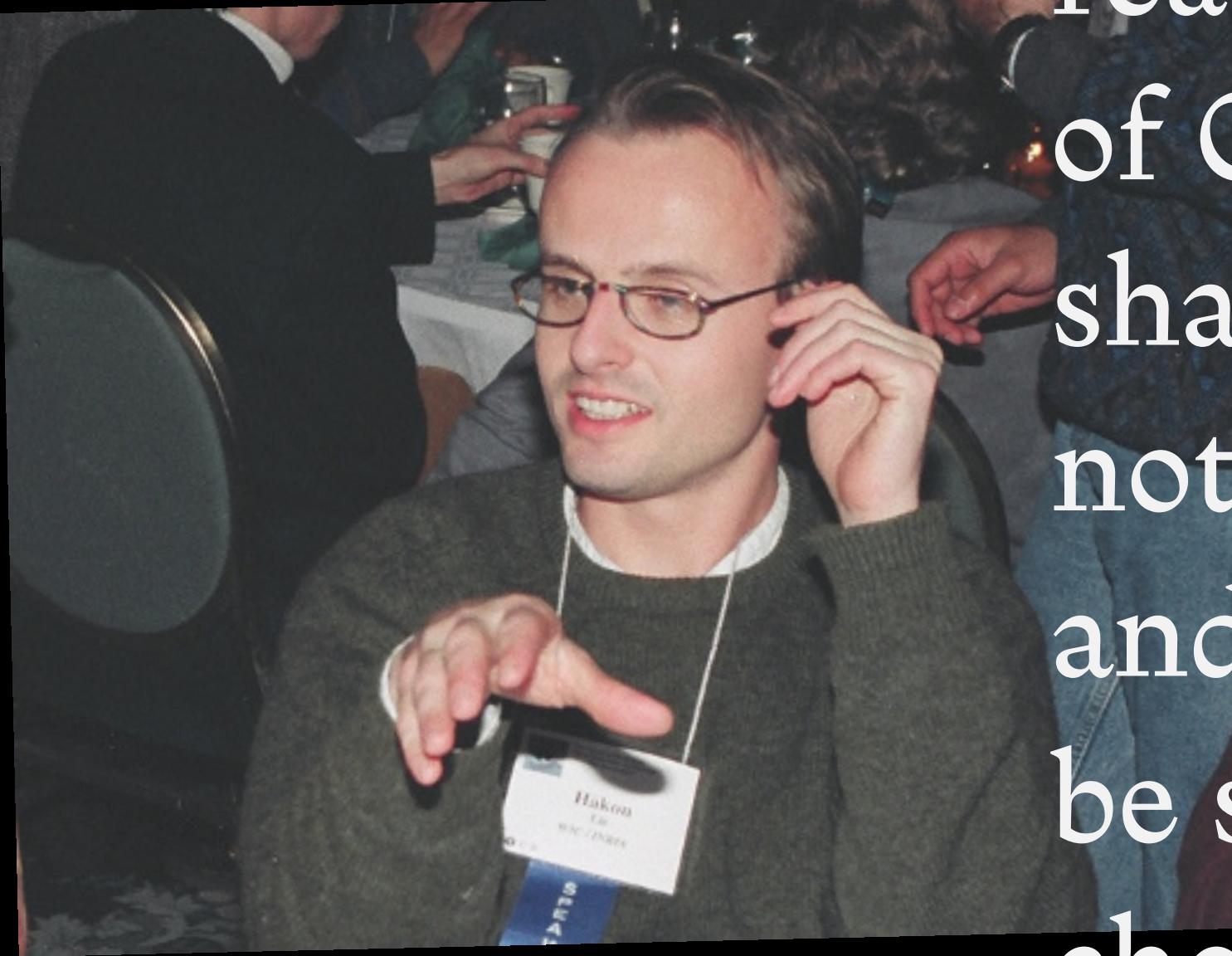
## Introduction

Style sheets are a part of the web today. Browsers, especially the GUI variants, support ways for the user to specify presentation parameters like fonts and colors. There are several reasons why the current functionality is not sufficient:

- current style sheets are static, they seldom change within the lifetime of a browser process. This makes the visual environment sparse.
- current style sheets are implemented using platform-specific notations, e.g. X11 resources. While some may consider this to be a feature, it prohibits general mechanisms for passing styles over the web.
- the author of HTML documents has no influence over the presentation. Indeed, if conflicts arise the user should have the last word, but one should also allow the author to attach style hints.

The last point has especially been a source of much frustration among professions that are used to be in control of paper-based publishing. This proposal tries to soften the tension between the author and the reader by:

<https://www.w3.org/People/howcome/p/cascade.html>



“Negotiating between the needs and wishes of readers and authors was one of the main ambitions of CSS. If successful, authors would get their fair share of **influence** over the presentation and would not feel compelled to use presentational HTML and other tricks. Readers, on the other hand, would be served documents in a form in which they could choose between accepting the author’s **suggested** presentation or specify their own.”

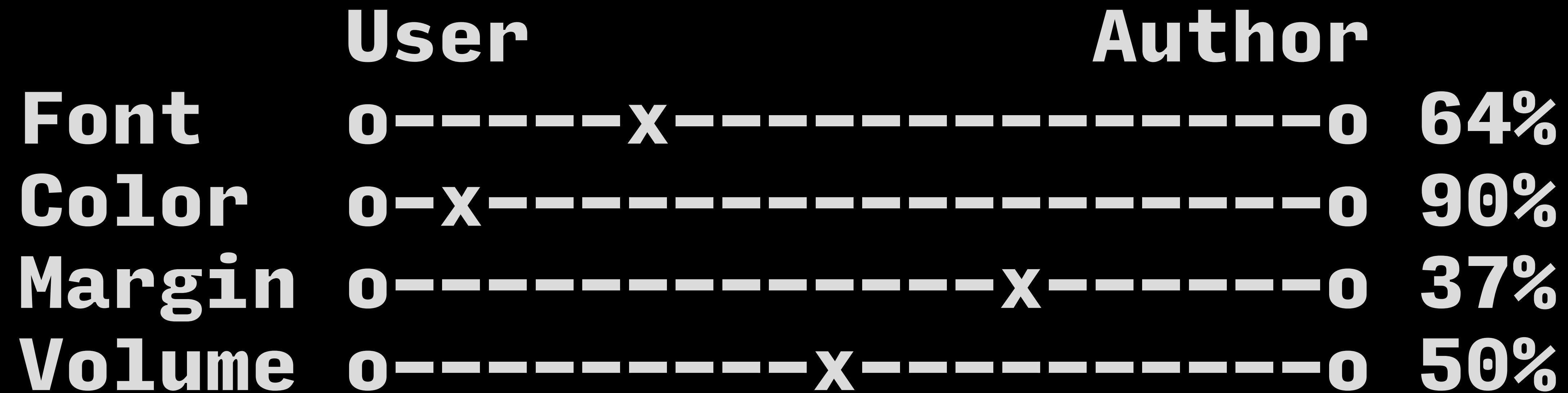
# Håkon Wium Lie

Cascading Style Sheets (PhD Thesis)

<https://www.wiumlie.no/2006/phd/>

`h1.fontSize = 24pt 100%`

24pt 100%



*Ceci n'est pas une fonte.*

Author control  
becomes shared  
author/user  
influence

The browser  
The user  
Web authors

“If you use style sheets properly, to suggest the appearance of a page, not to control the appearance of a page, and you don’t rely on your style sheet to convey information, then your pages will work fine in any browser, past or future.”

**John Allsopp, “A Dao of Web Design”**

<https://alistapart.com/article/dao/>



A screenshot of a web browser displaying the A List Apart website. The page title is "A Dao of Web Design · An A List · A List Apart". The URL in the address bar is <https://alistapart.com/article/dao>. The main navigation menu includes "ARTICLES", "EVENTS", "TOPICS", and "WRITE FOR US". The large "ALISTAPART" logo is centered above the article. The article title "A Dao of Web Design" is prominently displayed in bold black font. Below it, the author is listed as "by [John Allsopp](#) · April 07, 2000". The text is published in categories: "CSS", "Layout & Grids", "Typography & Web Fonts", and "Accessibility". The main content discusses the application of the Tao Te Ching to web design. A sidebar on the right contains a "Share this on" section with social media icons for Twitter, Facebook, and Google+.

# A Dao of Web Design

by [John Allsopp](#) · April 07, 2000

Published in [CSS](#), [Layout & Grids](#), [Typography & Web Fonts](#), [Accessibility](#)

What Zen was to the 70's (most famously with motorcycle maintenance), the *Tao Te Ching* was to the 90's. From Piglet and Pooh to Physics and back, many have sought sense in applying the *Tao Te Ching* to something (the *Tao of Physics*), or something to the *Tao Te Ching* (the *Tao of Pooh*). It can be a cheap trick, but lately it has struck me that there is more than a little to be understood about web design by looking through the prism of the Tao.

Daoism is a philosophy, like Buddhism, a way of living, of being in the world, which stems from a text of great antiquity, the *Tao Te Ching*, whose 81 "chapters" enigmatically sweep across human experience, but with a strong common theme, that of harmony.

Share this on

# Declarative Design

Jeremy Keith

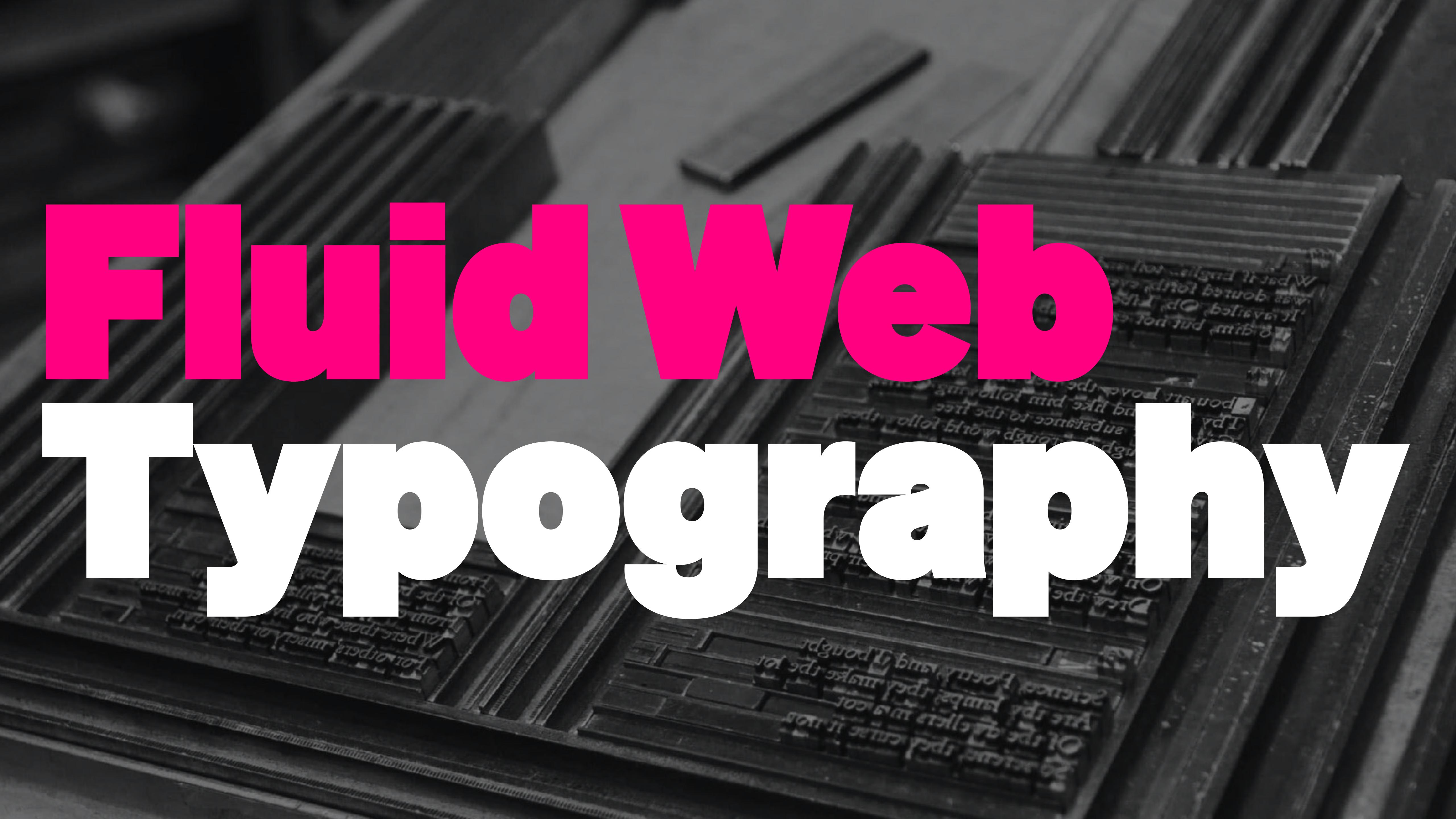
Photo by Stefan Nitzsche



**ARIA**  
**javascript()**  
**.css**  
**<html>**

two  
days

**font-family:** Tausend, Helvetica, Arial, sans-serif;



**Fluid Web**  
**typography**

Patterns · Matthias Ott – User +  
Nicht sicher matthiasott.test/patterns

Matthias Ott About Newsletter Workshops Blog Links /uses

# Level one heading

## Level two heading

### Level three heading

#### Level four heading

##### Level five heading

###### Level six heading

This is a paragraph of text. Some of the text may be *emphasised* and some it might even be **strongly emphasised**. Occasionally “quoted text” may be found within a paragraph ...and of course [a link](#) may appear at any point in the text. The average paragraph contains five or six sentences although some may contain as little or one or two while others carry on for anything up to ten sentences and beyond.

```
font-size: clamp(1rem, 0.6522rem + 1.7391vw, 2rem);
```

—  
min

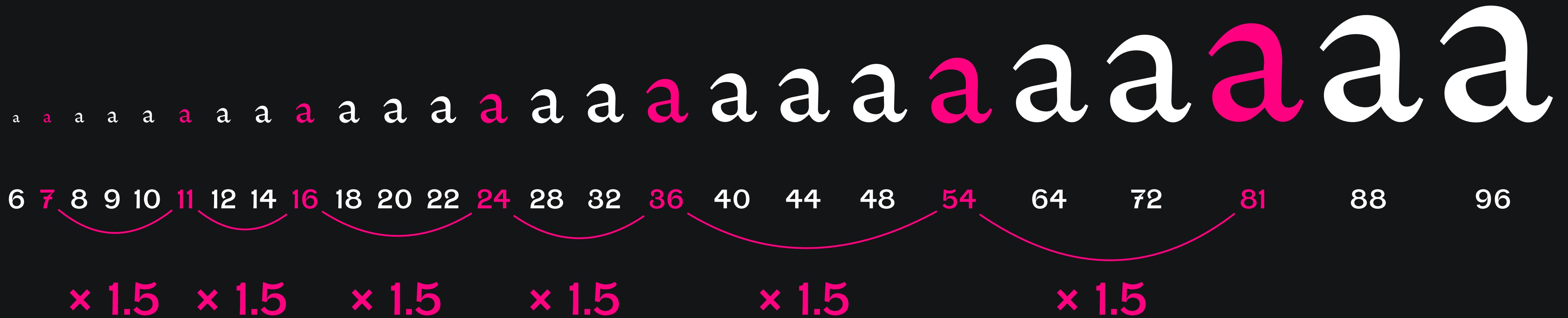
preferred

—  
max

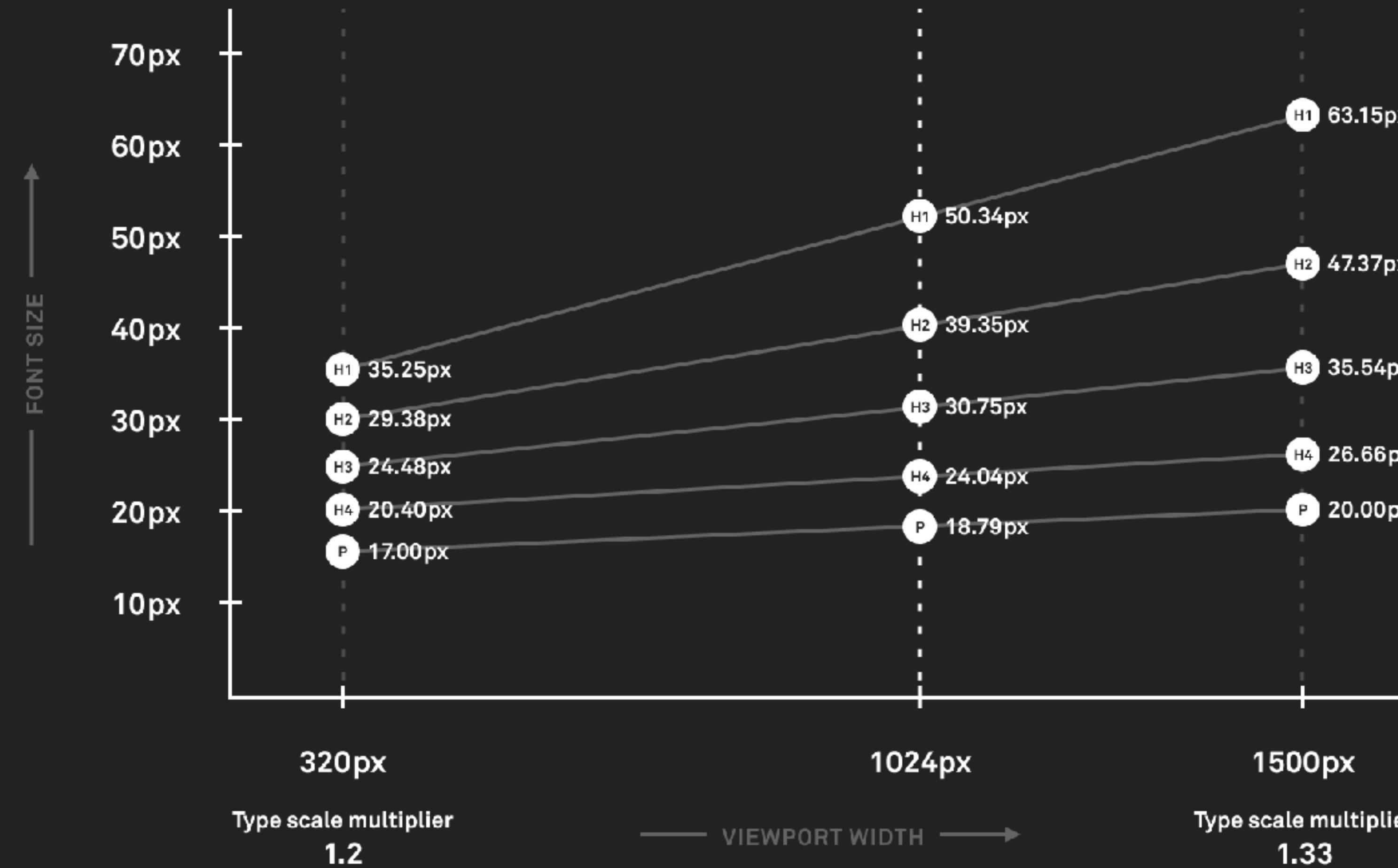


# Octave

# Perfect Fifth



# Interpolation between two typographic scales by viewport width



Source: Utopia.fyi

The screenshot shows a web browser window with the URL [utopia.fyi](https://utopia.fyi) in the address bar. The page content is as follows:

**UTOPIA.**  
FLUID RESPONSIVE DESIGN

Type Space Grid Clamp Blog Showcase Merch

## FLUID TYPE SCALE CALCULATOR

**MIN VIEWPORT**

| Width  | Font size | Type scale |
|--------|-----------|------------|
| 320 px | 18 px     | 1.2        |

Minor Third

**MAX VIEWPORT**

| Width   | Font size | Type scale |
|---------|-----------|------------|
| 1240 px | 20 px     | 1.25       |

Major Third

### CALCULATED FONT SIZES

This table lists font size values in px for your type scales at the min and max viewport widths entered above.

Add a *viewport width* to show its corresponding font size values.

Add a *scale step* to extend your scale up or down.

The screenshot shows a web-based CSS generator tool. At the top, there's a calculator interface with two input fields and a result field. The first input field has a value of **-1** and a value of **12.80**, and the result is **16.00**. The second input field has a value of **-2** and a value of **10.24**, and the result is **10.67**. Below the calculator is a large button with a plus sign (+). To the right of the calculator is a checkbox labeled **USE CLAMP** which is checked.

**CSS Generator**

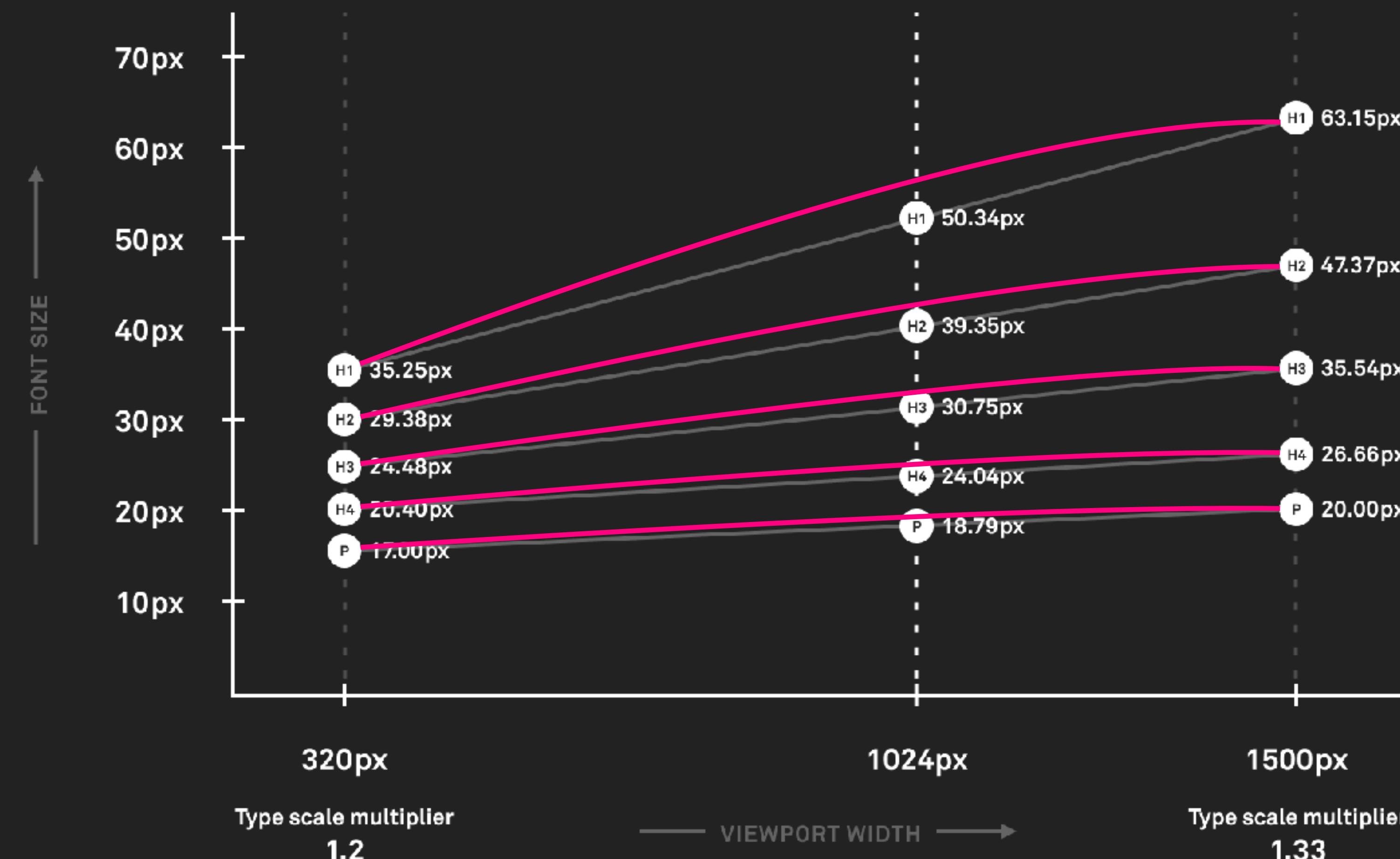
USE CLAMP

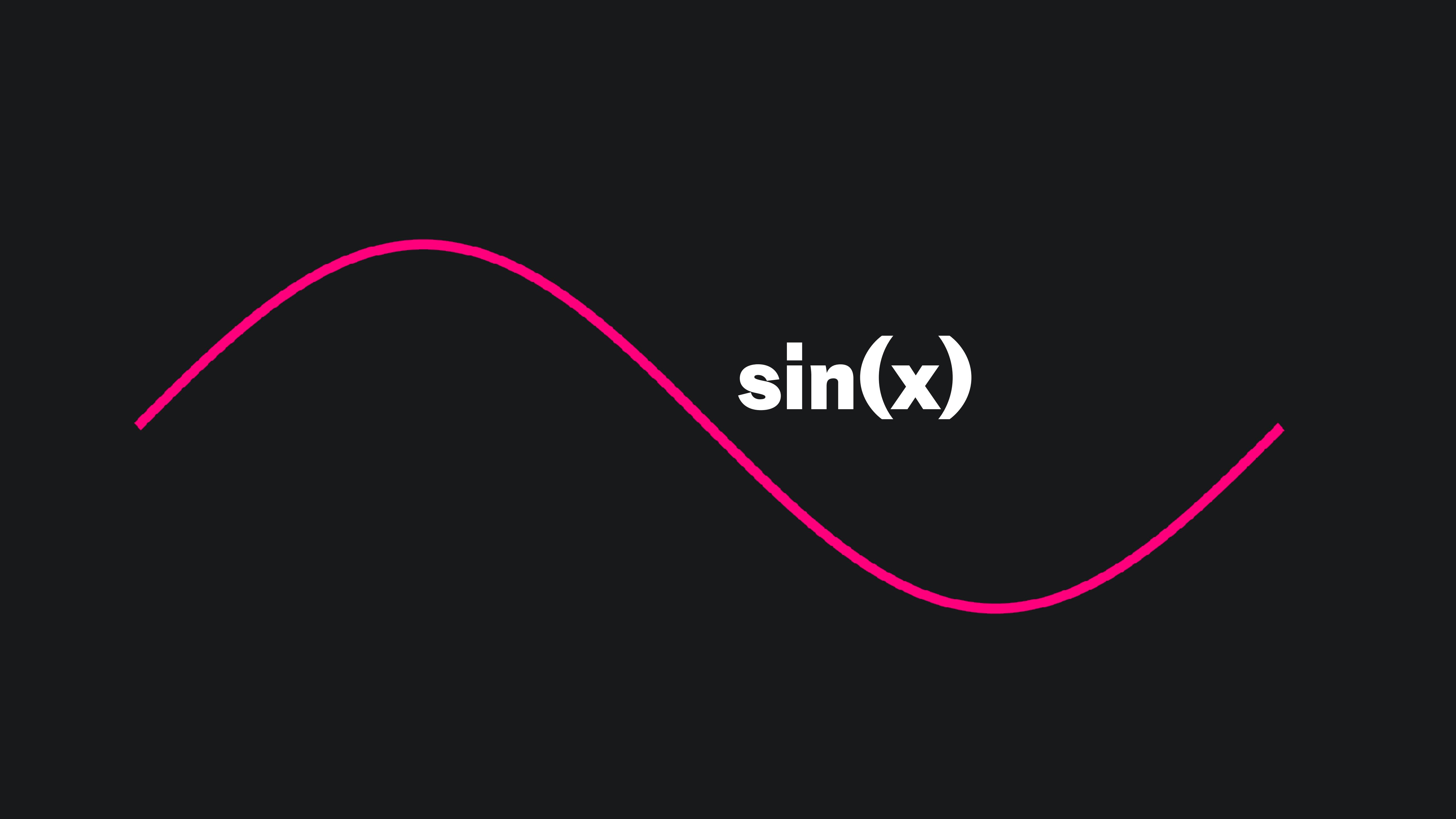
```
/* @link https://utopia.fyi/type/calculator?c=320,16,1.25,1140,24,1.5,5,2,&s=0.75|0.5|0.25,1.5|2|3|4|6

:root {
  --step--2: clamp(0.64rem, calc(0.63rem + 0.05vw), 0.67rem);
  --step--1: clamp(0.80rem, calc(0.72rem + 0.39vw), 1.00rem);
  --step-0: clamp(1.00rem, calc(0.80rem + 0.98vw), 1.50rem);
  --step-1: clamp(1.25rem, calc(0.86rem + 1.95vw), 2.25rem);
  --step-2: clamp(1.56rem, calc(0.86rem + 3.54vw), 3.38rem);
  --step-3: clamp(1.95rem, calc(0.74rem + 6.07vw), 5.06rem);
  --step-4: clamp(2.44rem, calc(0.43rem + 10.05vw), 7.59rem);
  --step-5: clamp(3.05rem, calc(-0.20rem + 16.27vw), 11.39rem);
}
```

**Visualise this scale**

# Interpolation between two typographic scales by viewport width





A graph of the sine function,  $\sin(x)$ , plotted against  $x$ . The curve starts at the origin (0,0), reaches a maximum value of 1 at  $x = \pi/2$ , crosses the x-axis at  $x = \pi$ , reaches a minimum value of -1 at  $x = 3\pi/2$ , and returns to the x-axis at  $x = 2\pi$ . The curve is red and has a thickness of approximately 2 pixels.

$\sin(x)$

1

0

*min*

**sin(x)**

*max*

# **sin(), cos(), tan(), asin(), acos(), atan(), and atan2()**



Baseline 2023



111



111



108



15.4

```
:root {  
    --minWidth: 320;  
    --maxWidth: 1600;  
    --100vw: 100vw;  
    --font-size-min: 1rem;  
    --font-size-max: 1.5rem;  
  
    /* Current viewport width in pixels without a unit */  
    --currentWidth: tan(atan2(var(--100vw), 1px));  
  
    /* This normalizes the value between 0 and 1 */  
    --x: clamp(0, calc((var(--currentWidth) - var(--minWidth)) /  
        (var(--maxWidth) - var(--minWidth))), 1);  
  
    /* Now we can put our x into the sine function */  
    --easeOutSine: sin(var(--x) * pi) / 2;  
  
    /* And calculate our font-size */  
    --fluid-font-size: clamp(var(--font-size-min), var(--font-size-min) +  
        ( var(--easeOutSine) * (var(--font-size-max) - var(--font-size-min)) ),  
        var(--font-size-max));  
}
```

Harmonic Fluid Typography

codepen.io/matthiasott/pen/xxNvmGP??editors=0100

Harmonic Fluid Typography ·  
Matthias Ott PRO

Save Settings

Viewport Width: 1057

# h1 harmonic fluid typography

## h2 harmonic fluid typography

### h3 harmonic fluid typography

#### h4 harmonic fluid typography

##### h5 harmonic fluid typography

Blank canvasses leant against gallery walls  
Flowing towards sculptures of Anything Goes  
On the marble stairs  
Leading to almost wherever you want them to

HTML

```
--baseFontSizeMin: 1rem;
--ratioMin: var(--minorSecond);
--minWidth: 320;
--baseFontSizeMax: 1.3125rem;
--ratioMax: var(--augmentedFourth);
--maxWidth: 1800;
/* Which curve do we want to use? */
--curve: var(--easeOutSine);
--currentWidth: calc(100vw / 1vw); /* Not supported in any browser */
/* We are using the property we declared as a <length>, so 100vw is 100vw;
--100vw: 100vw;
--currentWidth: clamp(var(--minWidth), calc(tan(atan2(var(--100vw, 100vw) * 100vw) * 100vw) / 100vw), var(--maxWidth));
/* This normalizes the value between 0 and 1 */
--x: clamp(0, calc((var(--currentWidth) - var(--minWidth)) / (var(--maxWidth) - var(--minWidth))), 1);
/* Min and max sizes of the scales are calculated based
on the provided ratio with pow():
https://developer.mozilla.org/en-US/docs/Web/CSS/pow */
/* Scale min */
--size-min-4: calc(var(--baseFontSizeMin) * pow(var(--ratioMin), 4));
--size-min-3: calc(var(--baseFontSizeMin) * pow(var(--ratioMin), 3));
--size-min-2: calc(var(--baseFontSizeMin) * pow(var(--ratioMin), 2));
--size-min-1: calc(var(--baseFontSizeMin) * pow(var(--ratioMin), 1));
--size-min-0: calc(var(--baseFontSizeMin) * pow(var(--ratioMin), 0));
--size-min--1: calc(var(--baseFontSizeMin) * pow(var(--ratioMin), -1));
```

JS

Last saved MAY 31, 2024 – 11:31:06 PM

Console Assets Comments % Keys

Delete Add to Collection Fork Embed Export Share

**Painting  
always has  
reality**

.....

*Portrait*

**Painting  
always has  
reality**

.....

*Landscape*

**Painting  
always has  
reality**

.....

*vh*

**$\sqrt{100vw * 100vh}$**

*vw*



*vw*

*vh*

**SPACE INDEX**

Harmonic Fluid Typography B x +

← → ⌂ codepen.io/matthiasott/live/GggOzqb ☆ | ☰ | ☱ | ☲ | ☳ | ☴

Viewport width: 1711  
Space Index: 1247  
Root font size: 16

# h1 fluid space typography

## h2 fluid space typography

### h3 fluid space typography

#### h4 fluid space typography

##### h5 fluid space typography

Blank canvasses leant against gallery walls  
Flowing towards sculptures of Anything Goes  
On the marble stairs  
Leading to almost wherever you want them to

## Gimlet X-Ray

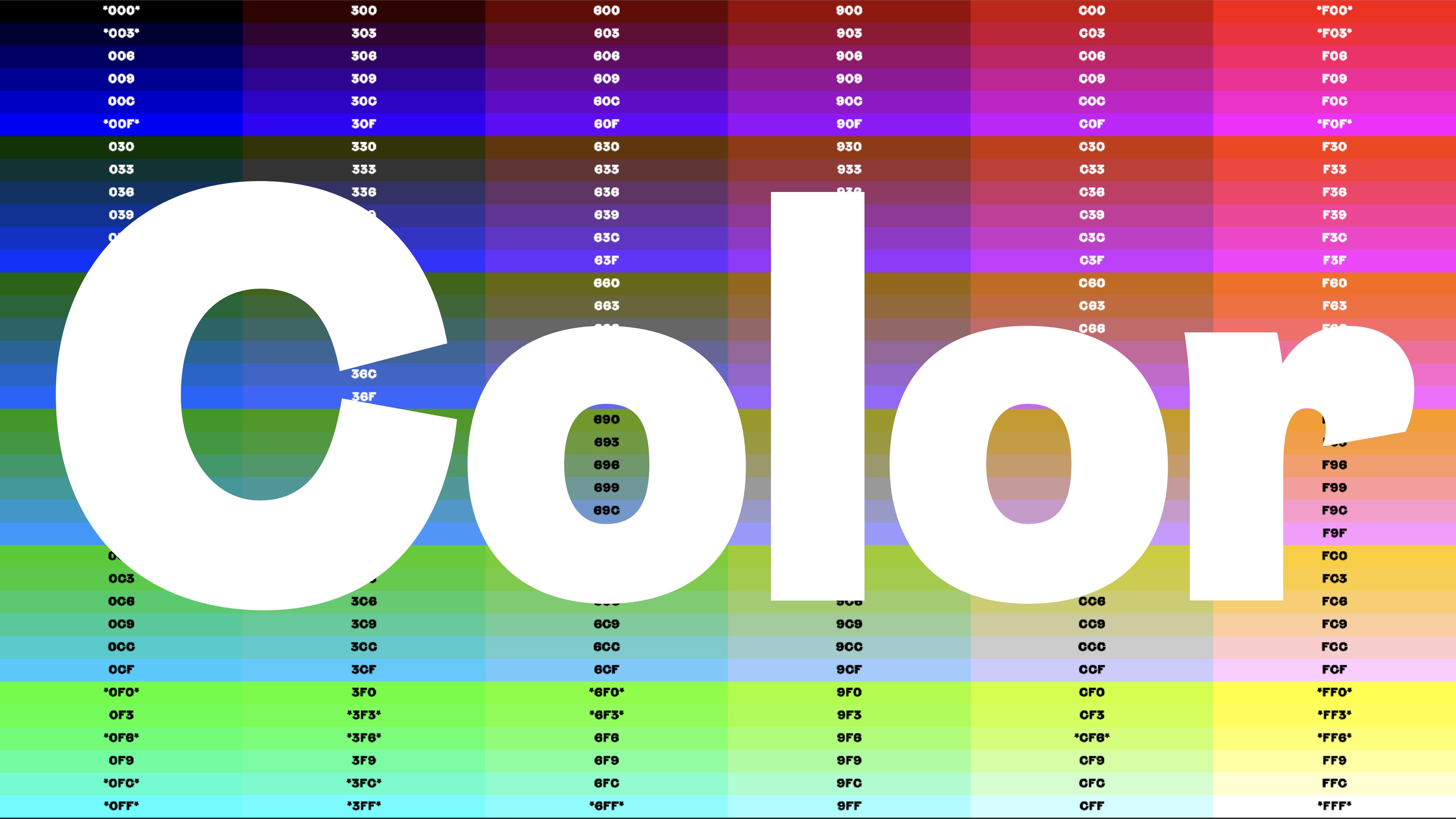
Weight: 300 - 900  
Width: 64 - 100  
Oncurve Point Size: 4 - 36  
Offcurve Point Size: 4 - 36  
Glyph Outline Weight: 2 - 10  
Point Outline Weight: 2 - 10

An experimental colorized version of Gimlet that exposes what goes on under the hood of a variable font, visualizing control points, bounding boxes, kerning, etc. The design of the underlying typeface and the visualization elements are both adjustable. As with DJR's other color fonts, the default color palette can be customized with a [web-based tool](#). (If the sample here is black and/or doesn't change with the sliders, your browser doesn't fully support variable color fonts yet.)

Tags: [decorative/display](#), [serif](#), [slab serif](#), [color](#), [multiplexed](#), [outline](#), [ornamented](#), [unusual variation](#)

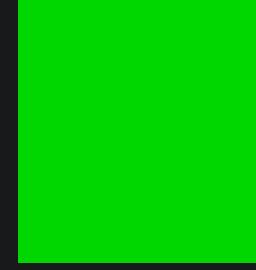
Design: [David Jonathan Ross](#)  
Publisher: [DJR, Font of the Month Club](#)  
Characters: [Latin](#)  
Released: 2020-01-01  
Licensing: [Trial, Paid/commercial](#)  
Info/fonts: [djr.com](#)







**rebeccapurple**



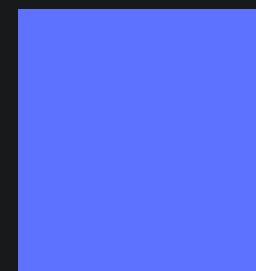
**#E646AE**



**rgb(230 70 174)**



**rgba(0.6 153 153 / 0.9)**



**hsl(233.16deg 100% 69.2%)**



**hwb(35.05deg 36.4% 0%)**

# CIE 1931



CIE 1931

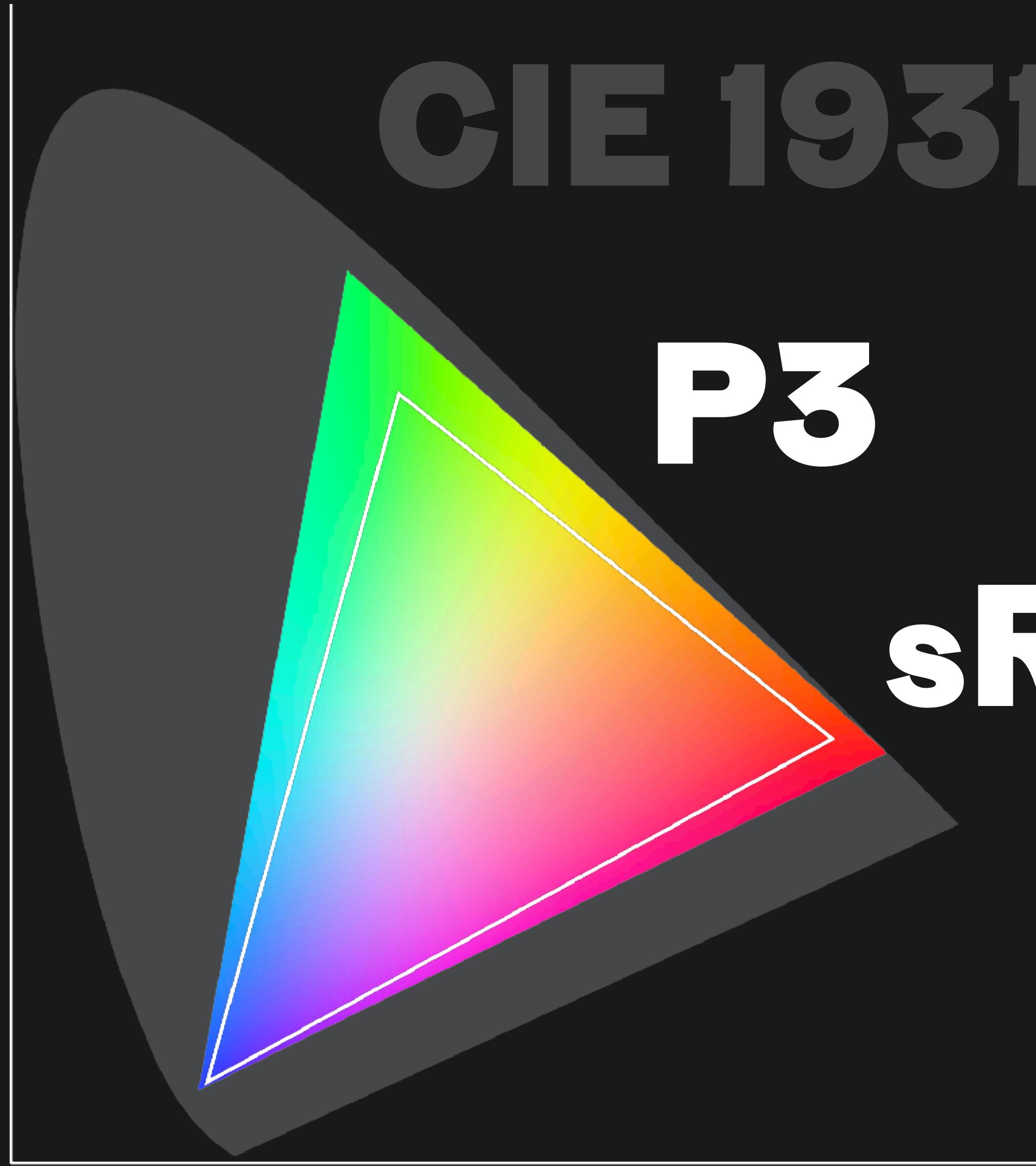
sRGB



CIE 1931

P3

sRGB



## Color profile settings

X

### Preferred color profile:

sRGB     Display P3

Best for Apple devices, Display P3 has a broader color spectrum—but isn't recommended for web design.

This preference applies to new Figma files. [Learn more](#)

 Your display supports Display P3.

OKUCHI

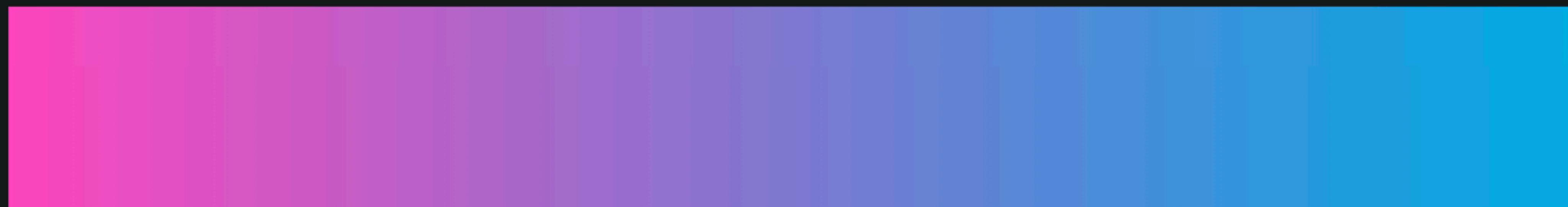
oklch(0.7 0.3357 340.8854)

oklch(0.7 0.3357 340.8854 / 50%)

```
:root {  
  --pink: rgb(255 26 211);  
}  
  
@supports (color: oklch(0.7 0.3357 340.8854)) {  
  :root {  
    --pink: oklch(0.7 0.3357 340.8854);  
  }  
}  
  
.pool {  
  --background-color: var(--pink);  
}
```

## Gradient in sRGB

```
linear-gradient(in srgb to right, #ff48c0, #00ade5)
```



## Gradient in Oklab

```
linear-gradient(in oklab to right, oklch(70% 0.315 345), oklch(70% 0.18 231))
```



## Gradient in Oklch

```
linear-gradient(in oklch to right, oklch(70% 0.315 345), oklch(70% 0.18 231))
```



# OKLCH Color Picker & Converter

P3 Fallback

O oklch(0.7 0.3357 340.8854)

R #ff1ad3

Closest fallback (by chroma) in sRGB

OKLCH LCH

Made at [Evil Martians](#),  
devtools building consultancy.  
By [Andrey Sitnik](#) & [Roman Shamin](#)

?

Why OKLCH is better than RGB and HSL

evilmartians / oklch-picker

Show 3D

Show graphs

Show P3

Show Rec2020

Lightness L 0.6987

Chroma C 0.3357

3D

Hue H 340.885

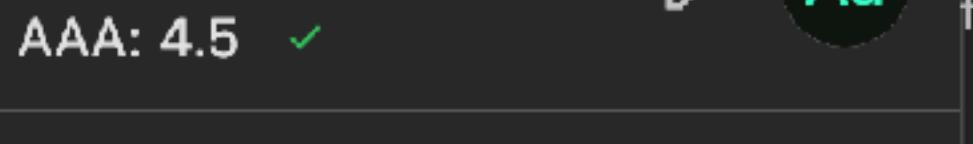
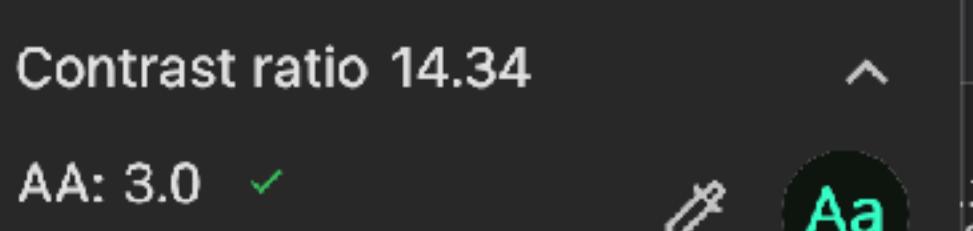
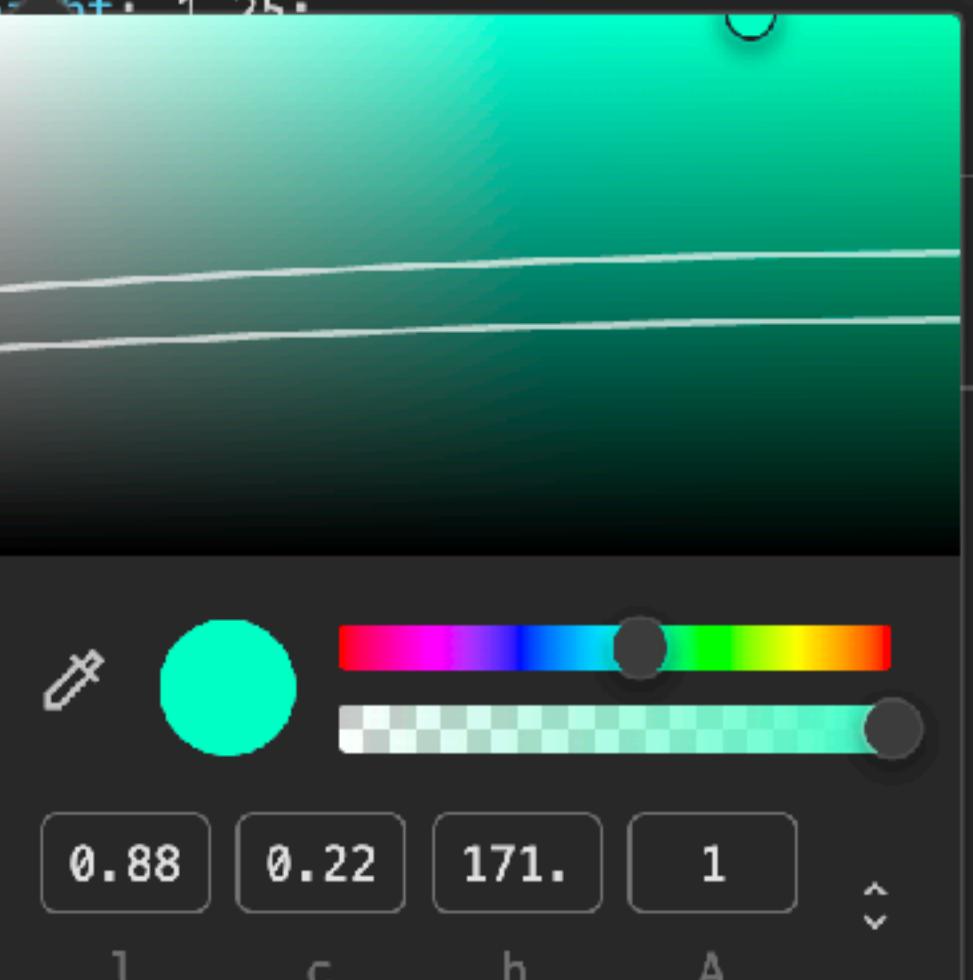
Alpha A 100

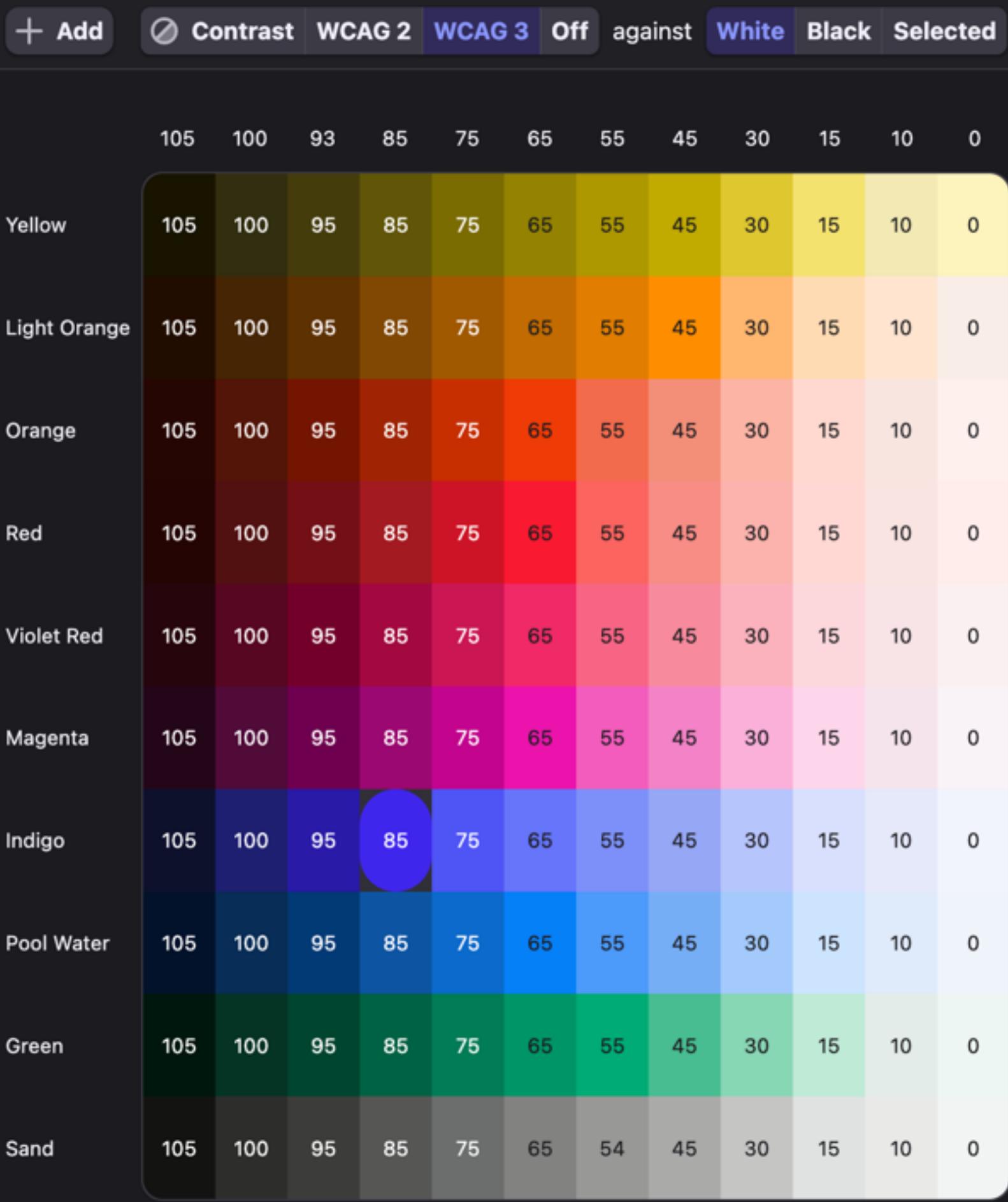
[oklch.com](http://oklch.com)

# Typography

hy

```
Filter  
element.style {  
}  
  
h1 {  
    font-size: var(--fluid-4);  
}  
  
h1, h2, h3, h4, h5, h6, p {  
    color: #oklch(0.88 0.22 171.55);  
    line-height: 1.25;  
    margin: 0;  
}  
  
*, *::before, *::after {  
    box-sizing: border-box;  
}  
  
h1 {  
    display: flex;  
    font-size: 1.25em;  
    margin: 0;  
    margin-bottom: 0.25em;  
    margin-top: 0.25em;  
    margin-left: 0;  
    margin-right: 0;  
    font-weight: 400;  
    unicode-range: 0.88 0.22 171.55;  
}  
  
Inherited from body {  
    Contrast ratio 14.34  
}  
    AA: 3.0 ✓  
    AAA: 4.5 ✓  
    Emojis: Aa  
  
Inherited from :root {  
    --minorThird: 1.2;  
    --majorThird: 1.25;  
    --perfectFourth: 1.33333;  
    --augmentedFourth: 1.414;  
    --perfectFifth: 1.5;  
    --minorSixth: 1.6;  
    --goldenRatio: 1.618;  
    --majorSixth: 1.66666;  
    --minorSeventh: 1.8;  
}
```





## Shortcuts

← ↑ → ↓ – navigate the palette

L + ↑ or ↓ – change the lightness value of selected color

C + ↑ or ↓ – change chroma value of selected color

H + ↑ or ↓ – change hue value of selected color

Hold ⌘ and drag any color dot – move values of the whole chart

Press ⇄ while dragging color dot – disable rounding to 0.5

See all shortcuts

## Indigo - 85

Lightness

47

Chroma

0,2699

Hue

#3E26ED

274

## Indigo

85

## Lightness

18.9 30.07 36.5 47 54.55 62 68.5 74.5 83 90.98 93.5 96.52

## Chroma

0.0555 0.1357 0.206 0.2699 0.2347 0.194 0.155 0.1147 0.0802 0.042 0.022 0.0122

## Hue

274 274 274 274 274 274 274 274 274 274 274

## Chroma

0.0906 0.1053 0.1651 0.1703 0.1797 0.192 0.2699 0.142 0.094 0.004

## Hue

100 61 34 25 10 345 274 255 165 138

atmos.style

# Relative Colors

✓ Baseline 2024



119



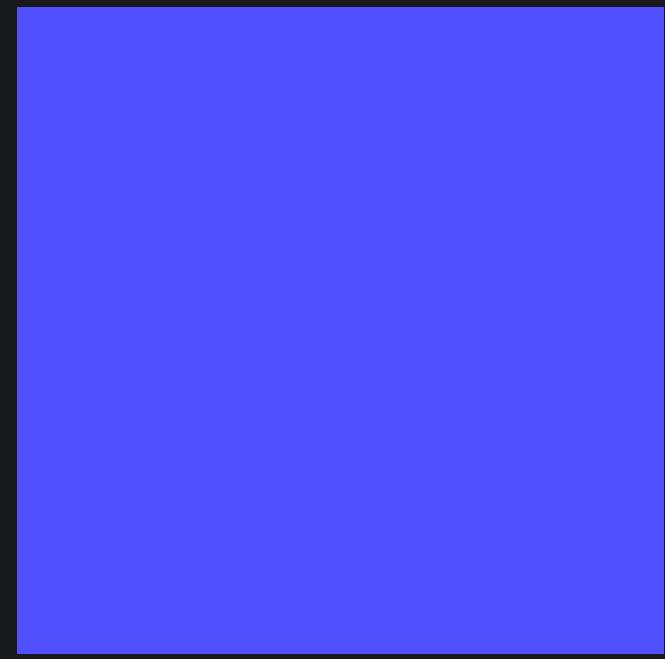
119



128



16.4



```
oklch(from var(--indigo) l c h);
```



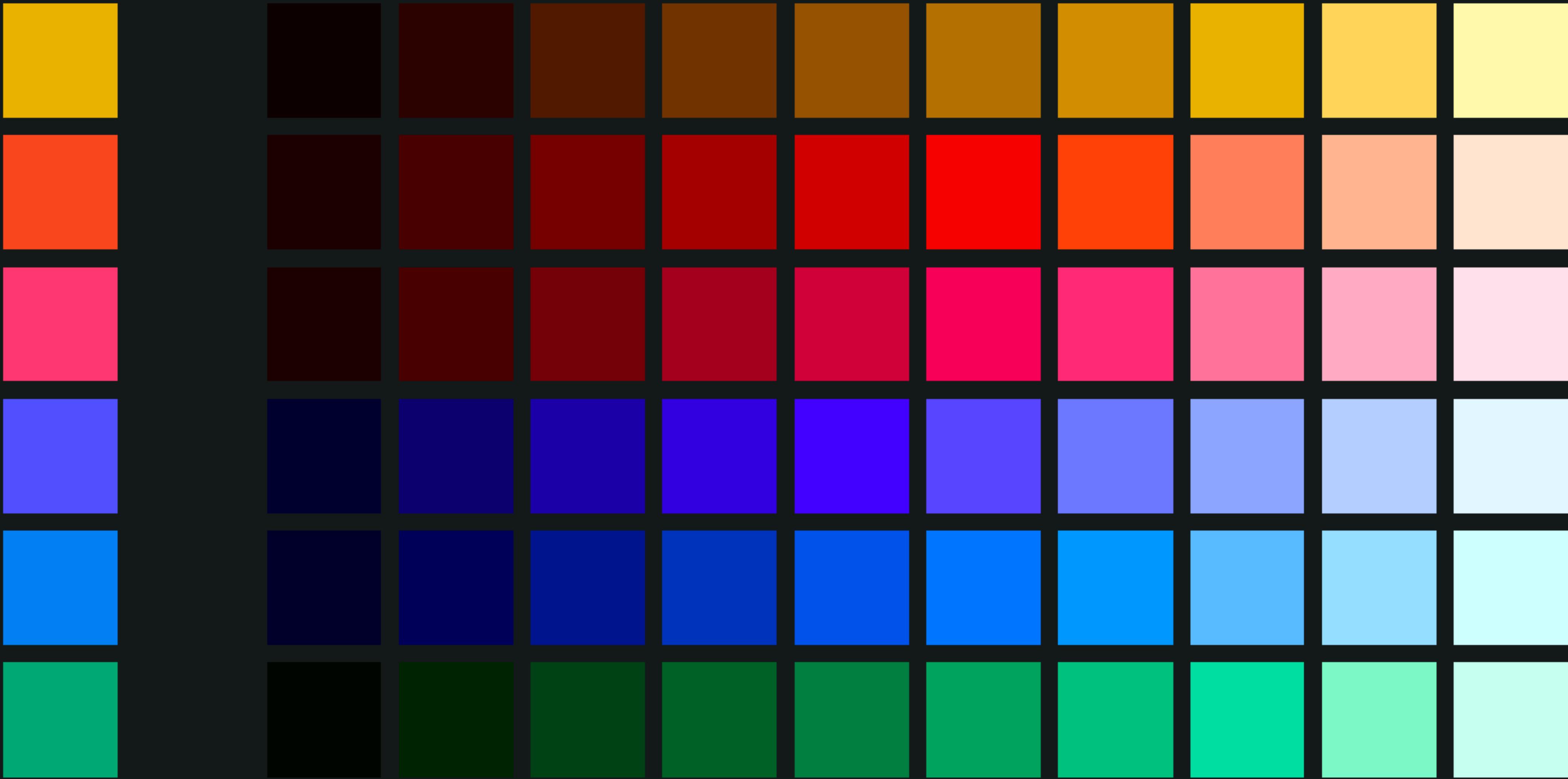
```
oklch(from var(--indigo) l c h / 50%);
```



```
--indigo: oklch(56.6% 0.27 274);
```

```
--indigo-10: oklch(from var(--indigo) 10% c h);
--indigo-20: oklch(from var(--indigo) 20% c h);
--indigo-30: oklch(from var(--indigo) 30% c h);
--indigo-40: oklch(from var(--indigo) 40% c h);
--indigo-50: oklch(from var(--indigo) 50% c h);
--indigo-60: oklch(from var(--indigo) 60% c h);
--indigo-70: oklch(from var(--indigo) 70% c h);
--indigo-80: oklch(from var(--indigo) 80% c h);
--indigo-90: oklch(from var(--indigo) 90% c h);
--indigo-100: oklch(from var(--indigo) 100% c h);
```





FCK  
AFD



e

# Okay, Color Spaces

February 20, 2024

Colors... *in... spaaaaaaace*

What is a “color space?”

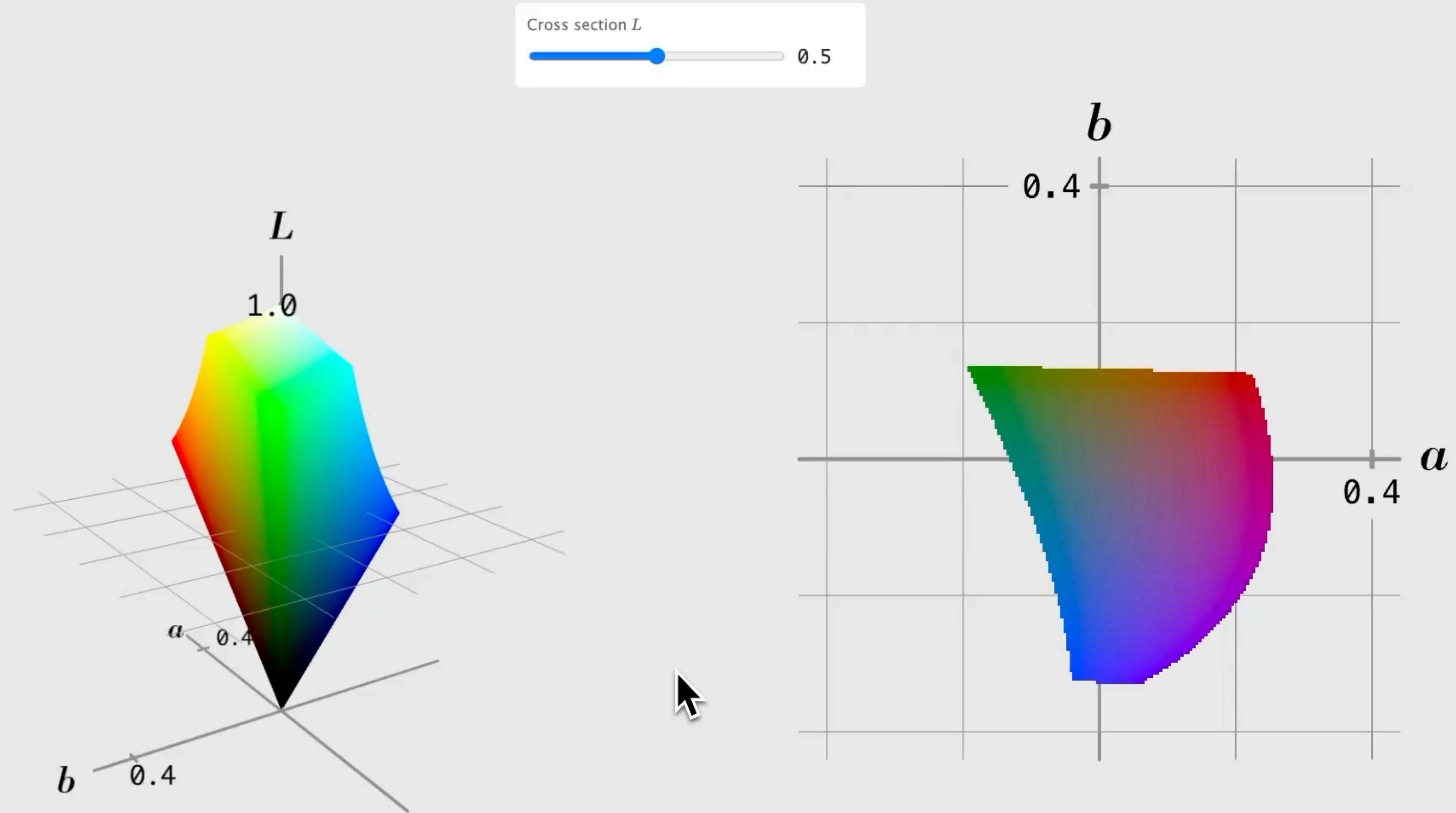
Well first you take some *colors*.

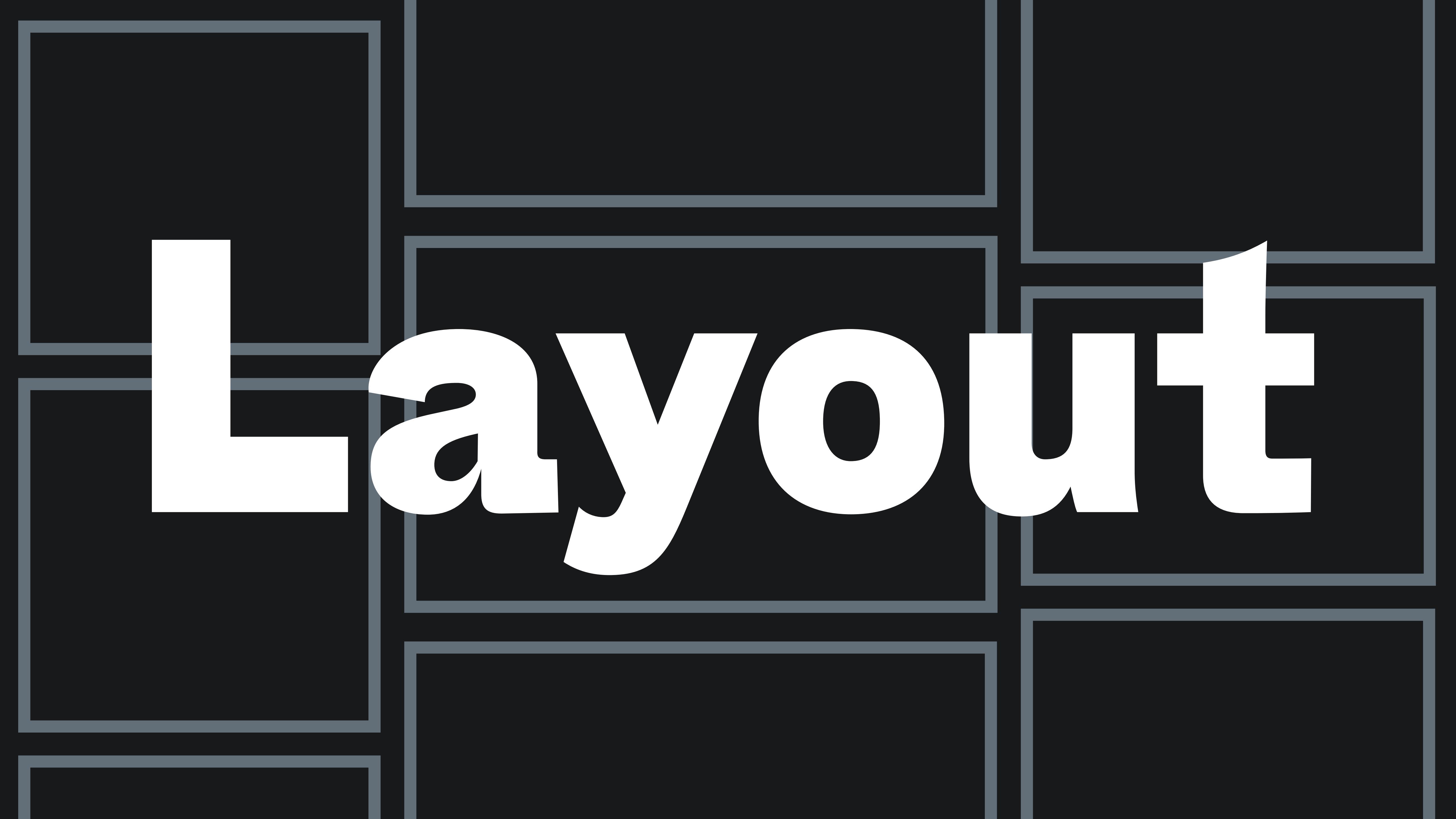
-  red
-  yellow
-  blue

And then you arrange them, however you like, into some kind of *space*:

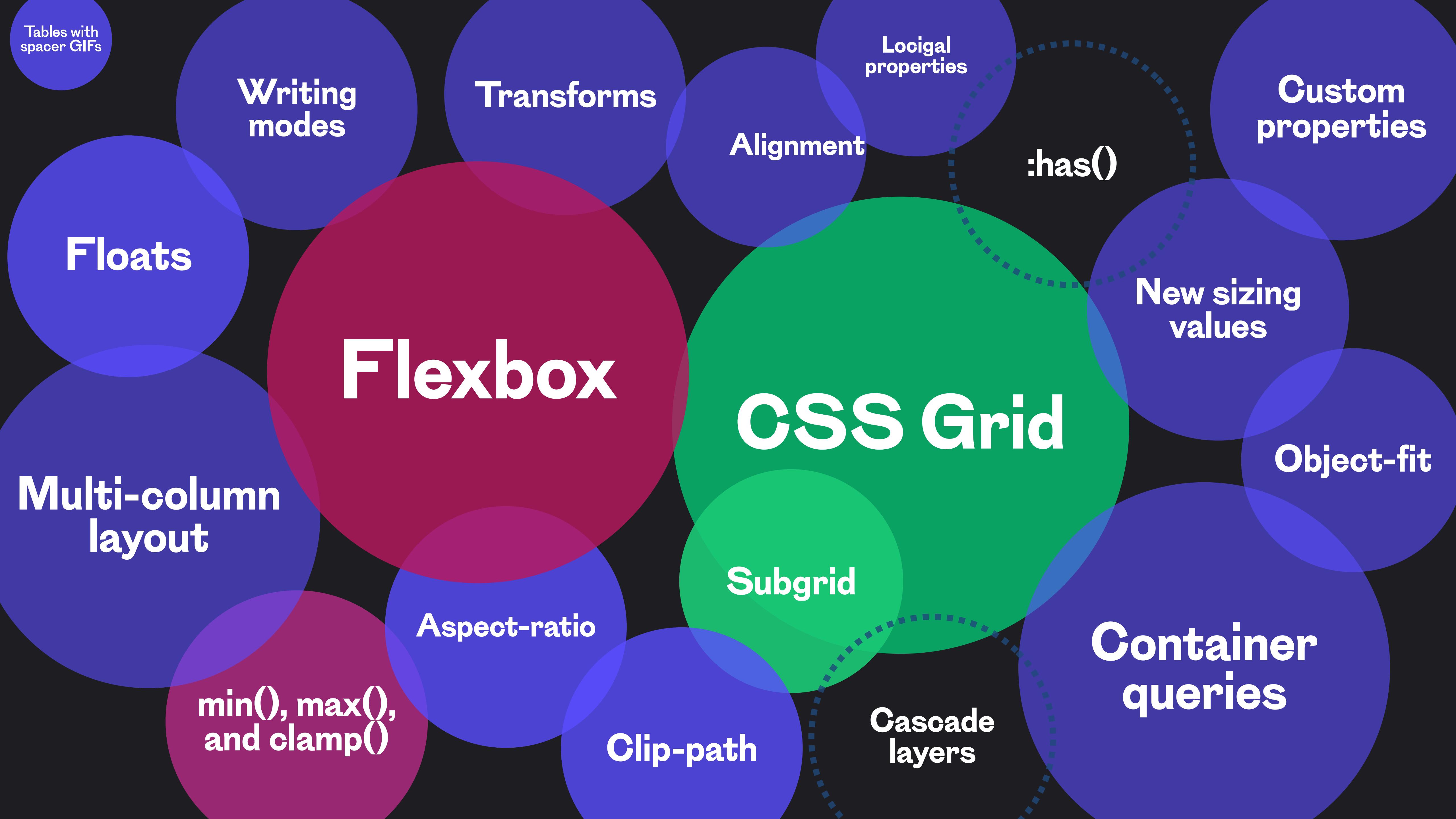
y

<https://ericportis.com/posts/2024/okay-color-spaces/>



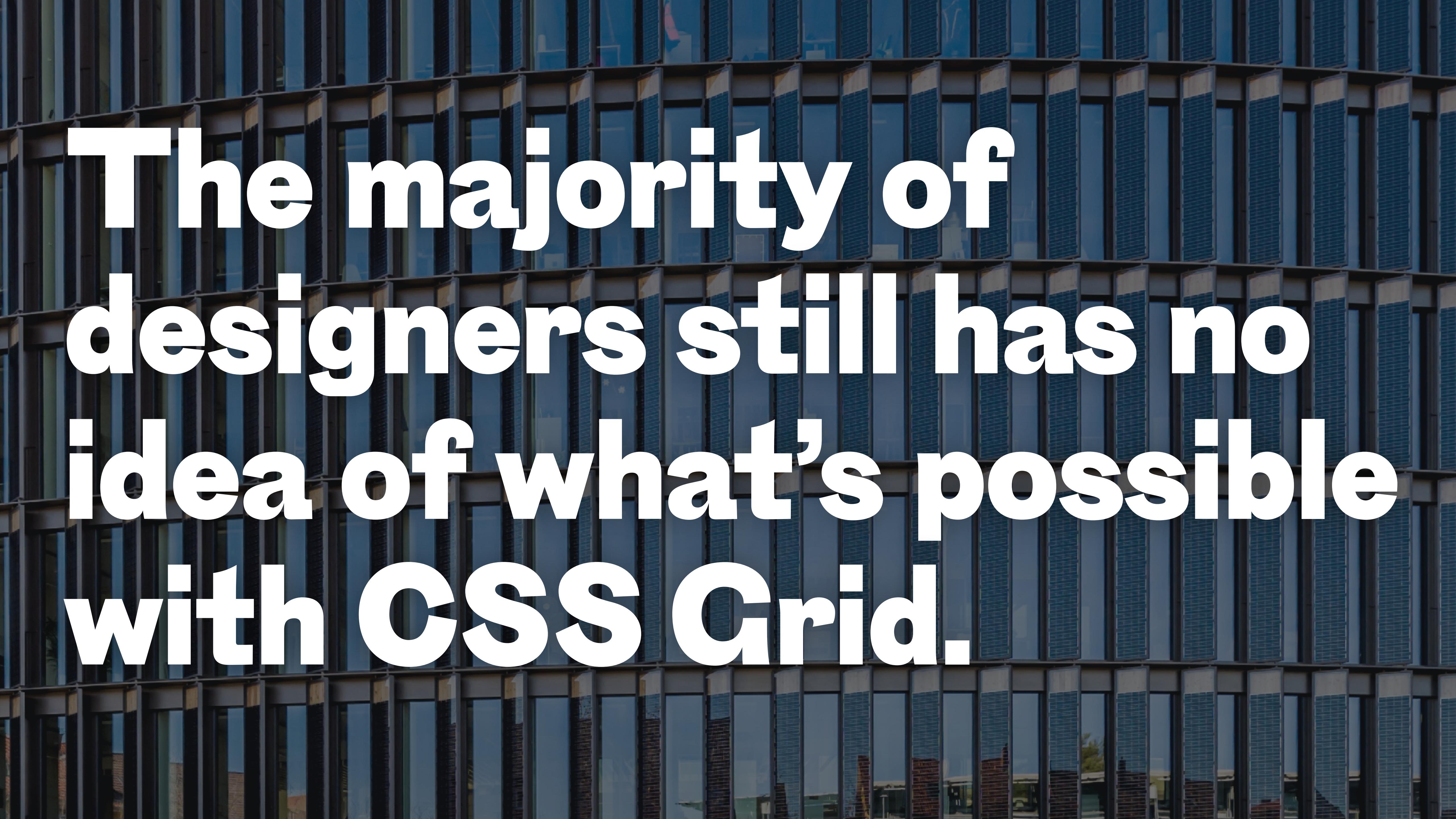


layout





css grid



The majority of  
designers still has no  
idea of what's possible  
with CSS Grid.

Grid Playground - Auto-fill

codepen.io/mattiasott/pen/ZEZgLBP/942211a4b46711c3ef380f73ae970e80?editors=0100

Grid Playground - Auto-fill

Matthias Ott PRO

Save Settings

HTML

```
20
21 .grid {
22   display: grid;
23   grid-auto-flow: dense;
24   gap: 1rem;
25   grid-template-columns: repeat(auto-fill, minmax(min(100%, 200px), 1fr));
26   transition: all .2s ease;
27 }
28
29 .card {
30   background-color: #594dff;
31   border-radius: 0.5rem;
32   aspect-ratio: 16/9;
33   transition: all .2s ease;
34 }
```

CSS (SCSS)

JS

Console Assets Comments ⌂ Keys

Last saved VOR 3 WOCHEN

Delete Add to Collection Fork Embed Export Share

```
20
21 .grid {
22   display: grid;
23   grid-auto-flow: dense;
24   gap: 1rem;
25   grid-template-columns: repeat(auto-fill, minmax(min(100%, 200px), 1fr));
26   transition: all .2s ease;
27 }
28
29 .card {
30   background-color: #594dff;
31   border-radius: 0.5rem;
32   aspect-ratio: 16/9;
33   transition: all .2s ease;
34 }
```

```
grid-template-columns: repeat(auto-fill, minmax(200px, 1fr));
```

Demo | Jen Simmons Labs

labs.jensimmons.com/2017/01-016.html

# A Title of an Article

100px

1fr

1fr

minmax(40ch, 65ch)

1fr

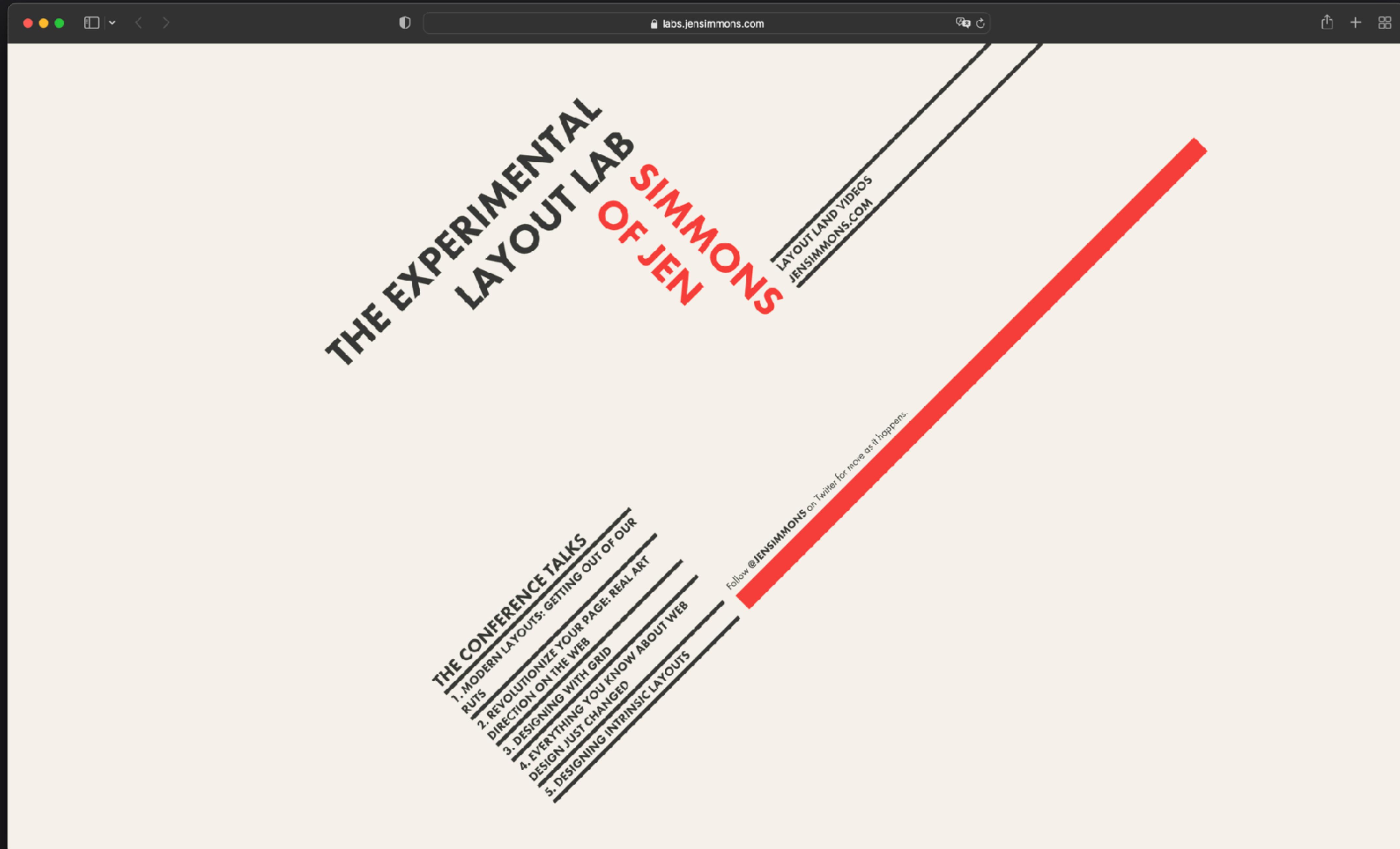
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Pellentesque pulvinar ligula a orci vestibulum, sed iaculis orci posuere. Proin ornare orci non magna finibus luctus. Nulla facilisi. Sed a sollicitudin elit, id feugiat leo. Proin in justo imperdiet, pellentesque dolor quis, posuere justo. Duis cursus, ligula auctor volutpat fringilla, lacus felis porttitor urna, vel volutpat libero risus eget lectus. Nunc rhoncus in sapien vel fringilla. Vestibulum rutrum quis dui vitae viverra. Suspendisse non mauris quis lacus faucibus placerat. Duis vitae iaculis tortor. In quis efficitur risus. Duis sem libero, elementum accumsan auctor a, molestie id neque. Maecenas quis lobortis augue.

Curabitur id elit mi. Sed bibendum nisl risus, in ultrices orci, molestie ut, Integer

@jensimmons  
youtube.com/layoutland

grid-template-columns: 100px 1fr 1fr minmax(40ch, 65ch) 1fr;

<https://labs.jensimmons.com/>



INTRO TO CSS GRID

grid

flex

responsive

overlap

nesting & multi-level arrays

see more examples...

5 Basic Examples of how CSS Grid Works

Spice Layout

Responsive Mondrian

Jazz at Lincoln Center Poster  
[on Codepen]  
[Rotate the boxes]

Teaser cards in various layouts

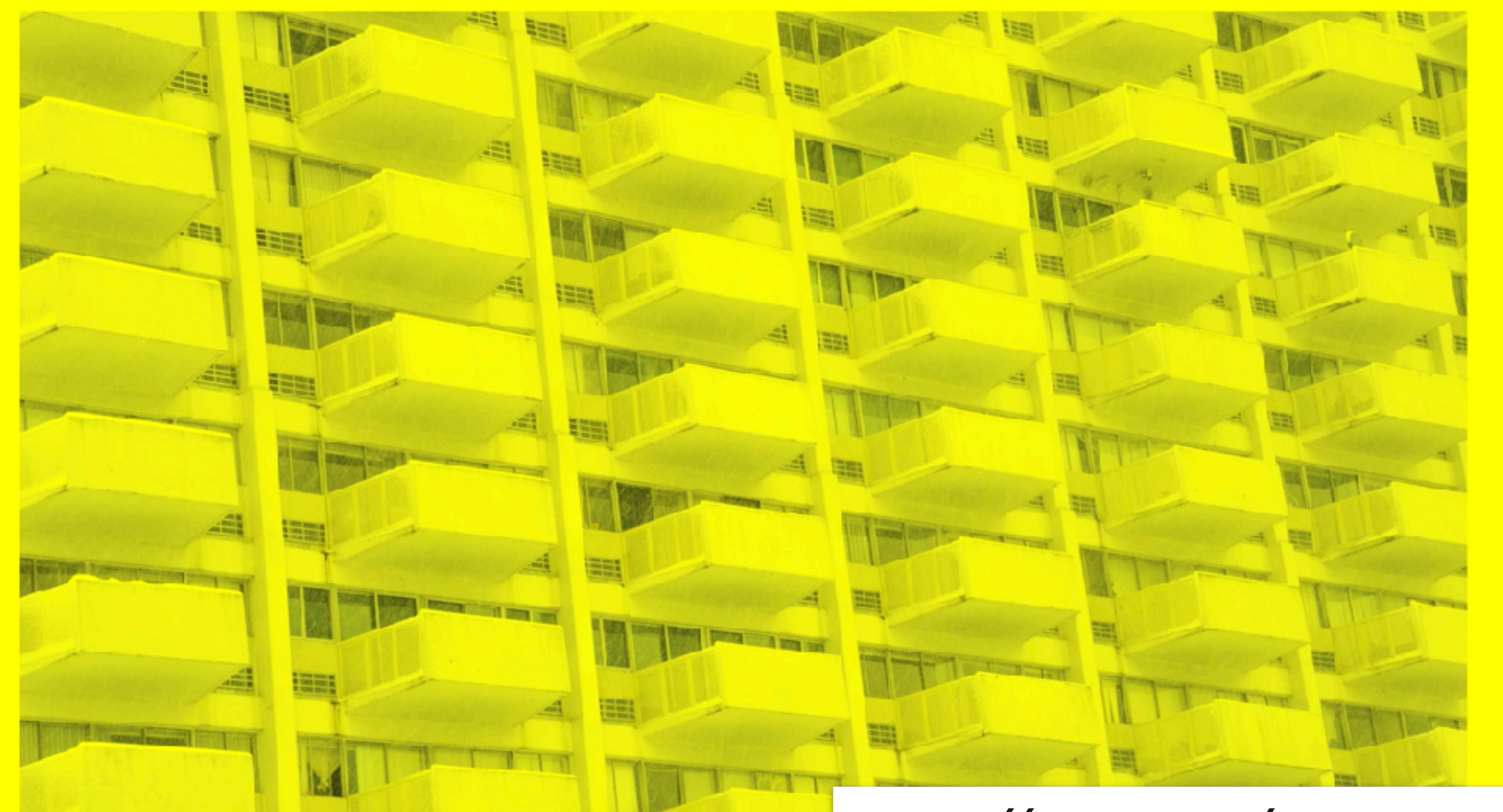
Example of Nesting Flexbox and Grid  
[on Codepen]

Monopoly on CSS Grid

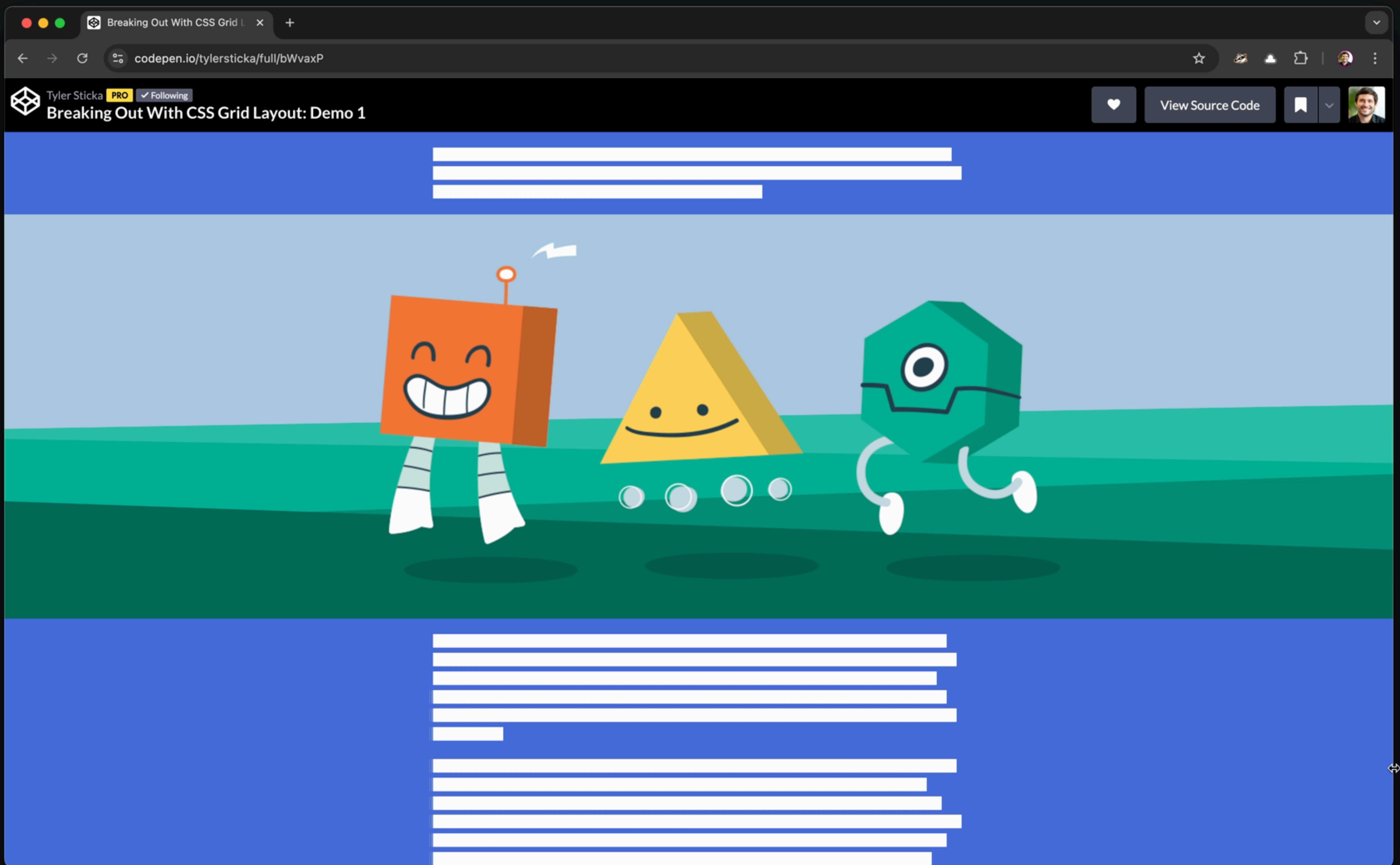
codepen.io

# SYSTEMS OF COMPONENTS

Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet. Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet. Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet.



<https://codepen.io/matthiasott/pen/oNyqMgp>





A photograph of a modern architectural building with a distinctive blue-tinted glass facade. The building's surface is composed of numerous rectangular panels that create a textured, almost pixelated appearance. The sky above is a clear, pale blue with a few wispy white clouds. In the foreground, large, bold, white sans-serif letters spell out "Subgrid".

Subgrid

Subgrid with repeat()

codepen.io/matthiasott/pen/JjqNPEN/9740c417f26be77133d551f1715df734?editors=0100

Subgrid with repeat() ⚡  
Matthias Ott PRO

A little history of game consoles

From humble beginnings with a few dots on a screen, game consoles have become a global phenomenon. Take a trip down memory lane as we explore the evolution of these entertainment machines, from the iconic classics to the mind-blowing technology of today.

Nintendo Game Boy

In your pocket, a world unfolded. The chunky brick of the Game Boy became an extension of childhood, offering endless adventures on its pixelated screen. Tetris taunted, Link explored, and Mario leaped, all powered by AA batteries and pure imagination. It was a revolution in portable gaming.

The SEGA Genesis

The SEGA Genesis was a 16-bit powerhouse that crackled with energy. Sonic the Hedgehog, Virtua Fighter, and Virtua Fighter 2 were just a few of the many games that made the Genesis a must-have console.

HTML

```
* CSS (SCSS)
```

```
40 .grid {  
41   display: grid;  
42   grid-template-columns: repeat(auto-fill, minmax(max(5ch, 120px), 1fr) minmax(min(20ch, 75vi), 1fr));  
43   grid-auto-rows: auto;  
44   gap: var(--space-s-l);  
45 }  
46  
47 .card {  
48   grid-column: span 2;  
49   grid-row: span 2;  
50  
51   display: grid;  
52   grid-template-columns: subgrid;  
53   grid-template-rows: subgrid;  
54  
55 /* We can use different gaps for our subgrid */  
56   gap: var(--space-s);  
57   row-gap: var(--space-xs);  
58  
59   background-color: #594dff;  
60   background-color: oklch(55.53% 0.263 287);  
61   border-radius: 0.5rem;  
62   width: 100%;  
63   color: #fff;  
64 }  
65  
66 .card h2 {  
67   margin: var(--space-s) var(--space-s) 0 0;  
68   text-wrap: balance;  
69   grid-row: 1;  
70 }  
71
```

Save Settings

Console Assets Comments Keys

540px JS

<https://codepen.io/matthiasott/pen/JjqNPEN>



container  
queries

Container Queries – The Mother Of All Demos

Matthias Ott PRO

Save Settings

HTML

CSS (SCSS)

```
.card {  
background-color: #594dff;  
background-color: oklch(55.53% 0.263 287);  
border-radius: 0.5rem;  
width: 100%;  
color: white;  
padding: clamp(1.25rem, 0.3043rem + 3.4783cqi, 2rem);  
  
h2 {  
font-size: var(--step-1);  
line-height: 1.1;  
}  
  
@container (min-width: 30em) {  
background-color: #bf009d;  
background-color: oklch(55.24% 0.261 338.73);  
  
.card-inner {  
grid-template-rows: auto auto;  
align-items: end;  
  
h2 {  
grid-column: 1 / -1;  
grid-row: 1 / 2;  
font-size: var(--step-3);  
margin: var(--space, 1rem);  
text-shadow: 0 0 rgb(0 0 0 / 100%) black;  
}  
  
img {  
grid-column: 1 / -1;  
grid-row: 1 / 2;  
}  
}
```

A little history of game consoles

From humble beginnings with a few dots on a screen, game consoles have become a global phenomenon. Take a trip down memory lane as we explore the evolution of these entertainment machines, from the iconic classics to the mind-blowing technology of today.

A little history of game consoles

From humble beginnings with a few dots on a screen, game consoles have become a global phenomenon. Take a trip down memory lane as we explore the evolution of these entertainment machines, from the iconic classics to the mind-blowing technology of today.

Save Settings

Console Assets Comments ⌘ Keys

<https://codepen.io/matthiasott/pen/pomNgKJ>

**Accessibility  
Forms**

**Interactivity**

**Responsiveness**

**Animation**

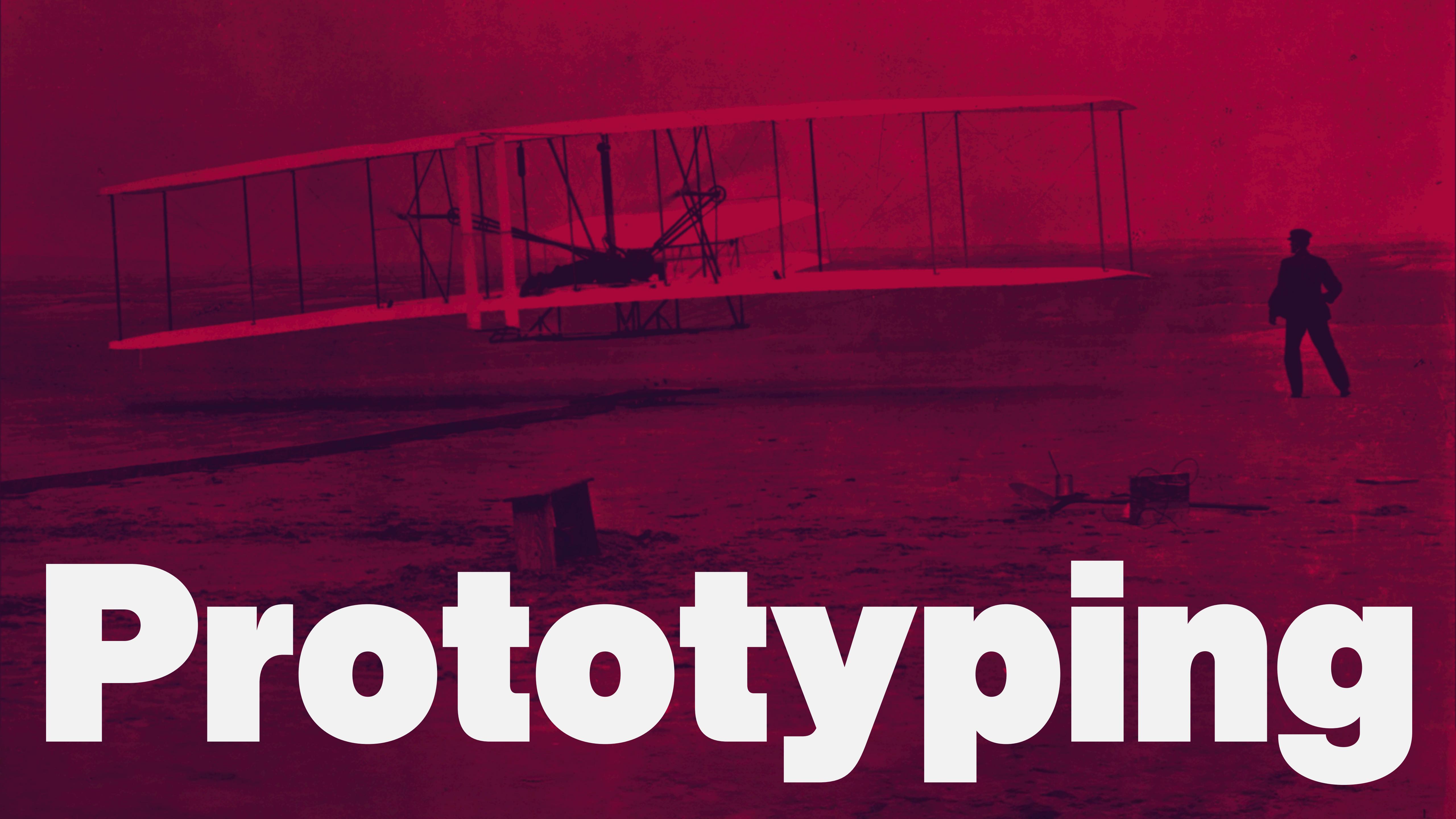
**Performance**

A high-contrast, black and white portrait of a person's face. The person is in deep shadow, with only their outline and some features like the eye and nose visible through the light. They appear to be wearing a dark cap or hood. The background is a textured, dark surface.

What is our  
toolset?

Use **HTML** and  
**CSS** much earlier  
in the process

# Prototyping



**Fidelity**

high

low

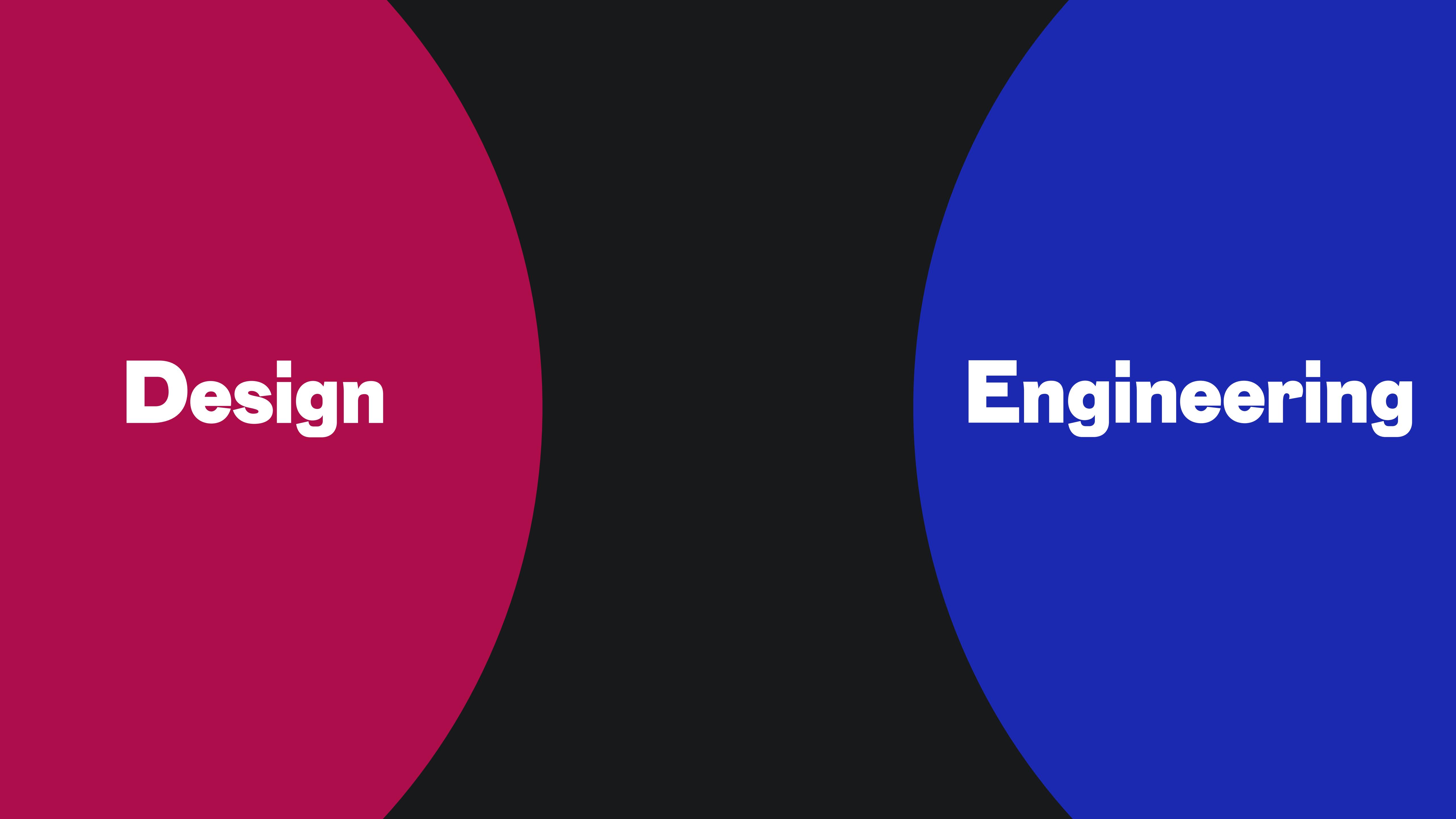
narrow

wide

**Scope**



**Decide in the**  
**browser**



# Design

# Engineering

# Design Engineering

Web  
Design  
Engineering



**Let devs design**

**Let designers code**



Matthias Ott

Not Secure matthiasott-2025.test

MATTHIAS OTT Web Design Engineer

# Hi, I'm Matthias Ott, independent user experience designer, web design engineer, and teacher for interface prototyping. I run workshops on design and web accessibility and write the Own Your Web newsletter.



Home  
Notes  
Articles  
Newsletter  
Workshops  
Links  
About

How can I help you grow?

»» **Web Design Engineering**

I design and build modern and resilient websites and products for the Web. Let me help you build yours.

»» **Workshops & Training**

Over 400 designers and developers from all over the world have joined me for a live workshop – in-person or online.

The screenshot shows the homepage of the website for CYD STUMPEL. At the top left is the logo 'CYD' in a blue, rounded font. To its right is the URL 'WEB@CYDSTUMPEL.HU' and the release date 'AVAILABLE JUNE 2025'. The top right features a navigation bar with links 'ABOUT', 'ARCHIVE', 'BLOGS', and 'CONTACT'. The main title 'CYD STUMPEL' is centered above a large, stylized, multi-colored text 'CREATIVE DEVELOPER' with a gradient from pink to yellow. This central graphic includes a small blue planet icon on the left and a blue flower icon on the right. Below the main title is a 'FREELANCER' logo featuring a lightbulb icon and the text 'CREATIVE DEVELOPER AVAILABLE JUNE 2025'. At the very bottom center, the word 'SELECTED' is partially visible.

The screenshot shows a top navigation bar with a "SELECT THEME" dropdown menu. The "Classic" theme is selected, highlighted with a red border. Other themes shown include "Dark", "Koopa Beach", "Choco Mountain", "Moo Moo Farm", "Bowser's Castle", "Yoshi Valley", and "Rainbow Road". Below the theme menu is a user profile for "Max Böck" with a blue verified checkmark. A navigation bar below features four items: "01 home" (underlined in red), "02 writing", "03 notes", and "04 about". To the right is a small edit icon. The main content area has a white background with a large, bold, dark font header "I make websites.". Below it is a paragraph of text: "I'm a front-end developer and co-founder of Codista, a software studio in Vienna. I also write about the web on my blog and elsewhere." The word "Codista" is highlighted with a light gray box.

Responsive Web Typography

Home   Talks   Type Audit   Ring   Tips   Resources   About Jason

fa Variable fonts supported!

# Hi, I'm Jason

My name is Jason Paintal. I'm a design strategist, UX leader, technologist, expert in web typography, and invited Expert on the W3C Web Fonts Working Group. I write, speak, and work with teams and brand owners on how to set type better on digital platforms. I've spoken with organizations like Adobe, Audible, Condé Nast, GoDaddy, IBM—and given [presentations and workshops](#) at conferences all over the world. I also publish a newsletter on [web typography](#).



Type is how we 'hear' what we read

Since the introduction of Variable Fonts in late 2016, I've spent a good deal of time researching, writing about, and working with them, and am convinced they are the future of type—and indeed design—on the web. I've designed demos for [Type Network](#) and [Monotype](#) (with an [article & demo page](#) I wrote and designed), spoken about them at Adobe Typekit's 'Typekitpalooza' internal conference, been quoted about them by [Microsoft](#) and in [Communication Arts](#), and presented about them at [An Event Apart](#), [TYPO Labs Berlin](#), and many more.

**November**

- 15 Disco dishes
- 12 A redesign

**October**

- 31 If I could be anything

**September**

- 26 Less typical
- 23 I moved from my self hosted Mastodon instance to a micro.blog account
- 11 No Inputs Day
- 64 The middle point of softness, kindness, calmness

**August**

- 30 How often do you get to rewrite and rethink?

**July**

- 17 Flexibility
- 16 Is TypeScript good?
- 10 Reassessing the morning routine in 2023

**NOTES**

- TADS
- ABOUT

**SUBSCRIBE**

- rainbows
- cursor traits
- dark mode

A vertical strip of white paper with horizontal ruling lines. A large yellow speech bubble is positioned on the right side, containing the text "READ MY LIPS" in black, bold, sans-serif font. Below the yellow bubble is a solid grey rectangular box, containing the text "CURSED? THIS IS IT!" in the same black, bold, sans-serif font.



Blog    Links    Speaking    About me    Contact

Well, hello!

I'm Hidde, an accessibility nerd, front-end developer, components enthusiast, web standards fan and tech ethics explorer. Welcome to my personal website.

This is where you can find [my blog](#), information [about me](#), my [speaking](#) and ways to [contact me](#).

### Recent blog posts

|                      |                                |                  |
|----------------------|--------------------------------|------------------|
| Running for the AB → | Is "ethical AI" an oxymoron? → | Tag, you're it → |
|----------------------|--------------------------------|------------------|

cassie

writing speaking workshop playing

👋 Hi, I'm cassie!

**I like making fun, interactive things with code. I also talk & write about those things.**

**jon Collision**  
searing waffle since 2001.

**HOME**   **JOURNAL**   **WORK**   **ABOUT**

 Hello.  
I'm a designer,  
writer, artist  
and musician.  
But, who am I  
really?

 Nottingham born.

 Chubby and  
quiet, good at  
drawing. It's  
always sunny.

 There is  
lovable; I  
here is pop  
art, soft rock,

 there are  
national  
parks;  
there is  
nature. ↗

 Then I seem  
age.  
  
I got this feeling  
I'm in motion, a  
sudden sense of  
liberty. ↗

**THE  
ORDER**  
—  
NOTTINGHAM  
1975

The world opens up.  
Paintings from the 50s;  
new landscapes. ↗

*Bon voyage, the road's  
divided. Paint me the  
places you've seen.* ↗

 Identity.  
  
*The past was  
roses, but the  
future's mine.* ↗

 I'm me and  
nobody else;  
and whatever  
people think I  
am or say I am,  
that's what I'm  
not. ↗

 And then  
  
The North.  
Art school.

 Granite.  
To Iceland.

To Reykjavik.  
I know. ↗

Iceland has

[about](#) [blog](#) [links](#) [notes](#)

[projects](#) [now](#) [uses](#) [explore](#)

## Ahoy there, I'm Robb

I'm a developer at [Radweb](#), a developer and podcaster at [MacStories](#), a member of [#DevoDoDesign](#), an award winning hackathon team, and a podcaster with two shows. I also make a bunch of stuff including [Edufeed](#).

You can find me on Mastodon as [rob@social.kt](#) or [ESN](#), and more things as [robknight.kt](#).



More about me

## Latest Photos

LINKS PHOTOS ABOUT SEARCH

sara joy

SARA

sara stuff blog find

Hi! Welcome :)

I am a techy, creative person with a front end development "Schwerpunkt": I'm learning everything I can about Web Accessibility (a.k.a. ally), because the internet is for "everyone". This site is built with vanilla HTML, CSS and just a little JS in Astro. If it is all a bit much, there is a simpler version to be found at [sarajoy.dev/basic](#)

Just come out of what has felt like a long period of constant low level stress. Kidding, it's still there just not as urgent and noisy as it was! And the sun is shining

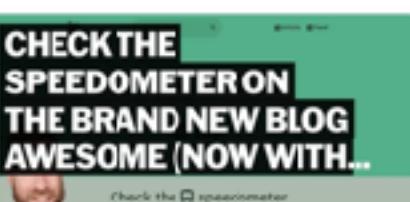
3 weeks ago on [@](#)

▶ What's new / now?

Code Skills

Zach Leatherman is a builder for the web at [Font Awesome](#) and the creator/maintainer of [Eleventy](#) (11ty), an award-winning open source site generator. At one point he became entirely [too fixated on web fonts](#). He has given 85 talks in nine different countries at events like Beyond Tellerrand, Smashing Conference, Jamstack Conf, CSSConf, and The White House. Formerly part of CloudCannon, Netlify, Filament Group, NEJS CON, and NebraskaJS. Read more [here](#)

## NEWEST #



Check the speedometer on the brand new blog awesome (now with 11ty)



11ty Meetup: Blog Awesome from WordPress to Eleventy

[jenn schiffer](#)

1. web developer, artist, community manager  
2. 900 years of total experience

site last updated April 10, 2023

menu

- get some of my art (mee)
- work experience (boring)

my other projects

- live laugh blog
- monthly newsletter
- makeitbar.com

[ZACH LEATHERMAN](#)

HOME ABOUT ARCHIVES

SEARCH TALKS ELEVENTY

2007 2025

POPULAR

A Comprehensive Guide to Font Loading Strategies 8.4 years

An Attempted Taxonomy of Web Components 1.5 years

BigText Makes Text Big 14.3 years

[KARDO AYOUB](#)

Hello!

i'm a product and product designer with 15 years of experience shaping solutions across various sectors, including finance, technology and energy. Through large global organisations, i've helped organisations such as HSBC, English Heritage, and Sony create more meaningful, inclusive digital experiences.

Blending data, empathy and creativity, i lead product design projects from delivery, working hands-on through research, prototyping, testing and iteration, with cross-functional teams to transform complex challenges into compelling solutions, leveraging emerging technologies to bring bold ideas to life.

[JAMFACTORY](#)

Portfolio of Director & Designer Gavin Strange

Hiya! My name's Director & Design by night I'm a passionate alias Jamfactory shoot photos, create a book. I wrote my blog & newsletter

Upcoming talks: London - 21st May - Motion North

Clagnut

Speaking · Archive · Search

An enthusiasm by Richard Rutter

Hello. I'm Richard, a designer, author and speaker living by the sea in Brighton, UK. I'm co-founder of Clearleft, a digital design consultancy. I love all things to do with human-centred design, typography, music and cycling. I occasionally write about them here.

Latest Posts

Opening up 'Unoffice hours'

I'm now around every Friday morning for a 30 minute chat about anything you like. Book a time slot that works for you.

4th April 2025

Me Elsewhere

- Mastodon
- Bluesky
- Flickr
- Github
- Strava

link

Tags

Categories

Talks

Theme

Light Dark

Slow cooker French onion soup with cheese toasts

22 November 2024 Recipe Book

Stranger Things: The First Shadow with Audio Description (AD)

25 August 2024 Real Life

Nielsen needs to think again

07 March 2024 Web Life

All 332

Note 263

Blog 84

CSS 225

HTML 17

JS 22

OSS 18

Shows 103

Talks 35

Tools 7

2 posts | past week

adam.is.bad@css

BLOG SHOWS CSS

WebDev Challenge - S2E2

Lane Wagner and I take on 2 other teams in a 4 hour challenge to make a 2D pixel game using TensorFlow.js

Kardo Ayoub

Hello!

i'm a product and product designer with 15 years of experience shaping solutions across various sectors, including finance, technology and energy. Through large global organisations, i've helped organisations such as HSBC, English Heritage, and Sony create more meaningful, inclusive digital experiences.

Blending data, empathy and creativity, i lead product design projects from delivery, working hands-on through research, prototyping, testing and iteration, with cross-functional teams to transform complex challenges into compelling solutions, leveraging emerging technologies to bring bold ideas to life.

# Thank you! ❤

Slides: <https://noti.st/matthiasott/ZXgFeg>

👉 [ownyourweb.site](http://ownyourweb.site) 👈

Typefaces:

**Tausend** by **Christoph Koeberlin**,  
**NaN Tresor** by **Christoph Koeberlin**,  
**NaN Tragedy** by **Jean-Baptiste Morizot**,  
**Input Mono** by **David Jonathan Ross**