Everything You Know About Web Design Just Changed

Jen Simmons

An Event Apart Seattle

April 2018

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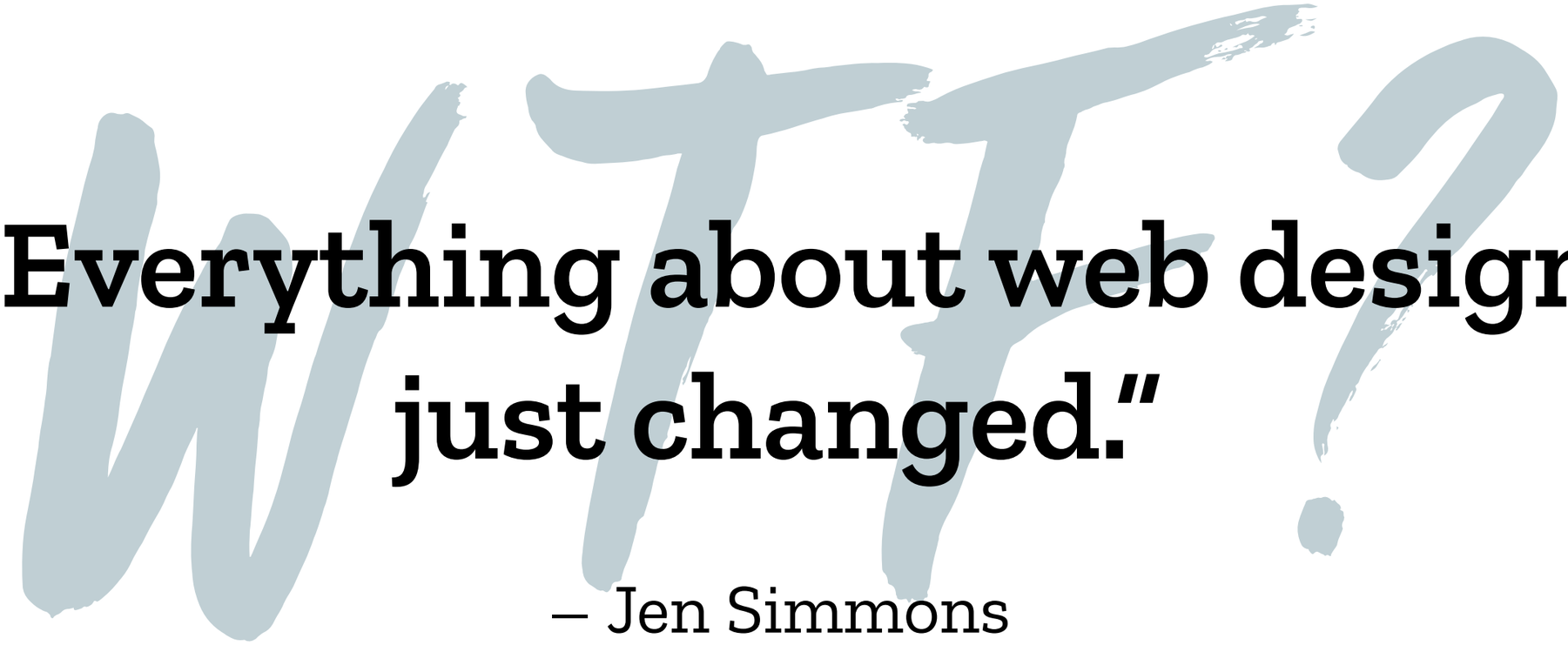
An Event Apart
SapientNitro
mozilla
y'all hands
Jen
SIMMONS
TPAC
Mozilla Foundation
Brooklyn Beta
CSS DAY
SPEA
SEATTLE
SAN FRANCISCO
WASHINGTON DC

WTF?

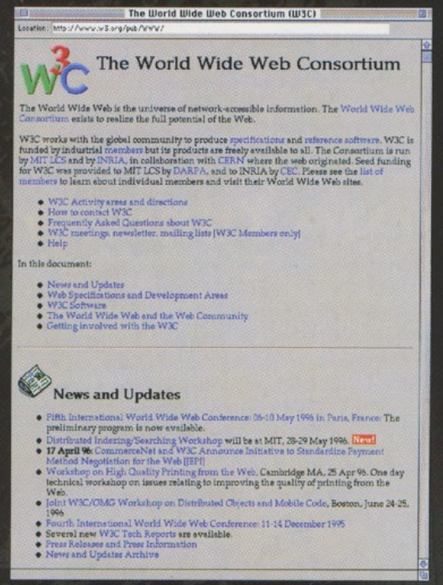


“Everything about web design just changed.”

– Jen Simmons

We need more art.
Real graphic design.

That's not how the web works.



1.1 A, B Information (ABOVE) versus Design (BELOW): Who will win?

THE FIRST TIME I saw the same web page through two different browsers at the same time, a feeling of panic swept through me. Why should the pages look so different? I knew various systems had different color spaces and resolutions, but these programs actually presented the pages in different ways. As a graphic designer, how could I design web pages if I didn't know how they would look? Could I let browsers reinterpret my work as they wished?

As it turns out, that is precisely what the Framers of the Web had in mind. They saw browser differences as beneficial. Because every document is marked with structural *tags* (headlines, list items, captions, and others) they believed users should control the presentation of documents they see. HTML (Hypertext Markup Language) lets the visitor choose how her browser displays the page.

That's like telling the artist how to hold the brush! I wanted more control. It was either toss in the mouse and go back to print design, or jump into the Web and color outside the lines.

I threw my HTML book in the trash and started from scratch. I built my own tags and made pages the way I wanted them to look. I began using images to lay out pages in two dimensions, rather than one. When tables became available, I poured columns of text in them. I reduced the colors and made the file sizes small and – guess what? – people came! The numbers actually broke my access counter.

I started teaching others what I had discovered. Those of us who broke the rules challenged each other with every

new page we made. Like the painters of Russia's avant garde in the Twenties (Rodchenko, Malevich, Popova), we felt like pirates. I received flaming threats from people who said I didn't understand the Web, I was ruining the information, and I should go back where I came from because I didn't understand the power of the medium. I fired back with more pages. I made it clear we were not going to go away. If the Puritans wanted a fight, we would give them one **[1.1 A, B]**.

Structural Markup versus Layout

Print and on-line design are very different. As a print designer, I use programs like Adobe PageMaker and Adobe Illustrator – programs that write PostScript to describe pages. PostScript is a page-description language. As a web site designer, I am required to use HTML rather than PostScript to make my sites (although this is changing, as you will see in Chapters 12 and 13). Designers want to make web pages with the same degree of control they have over paper. Designers must have layout capabilities if they are to design pages for artistic, entertainment, or marketing purposes. To quote hypermedia visionary Ted Nelson:

Multimedia must be controlled by dictatorial artists with full say on the final cut.

HTML is a *structural markup language*. It has no capability to display a fixed-size page or a fixed-size text container. Standard HTML gives the author almost no formatting control. It is meant mainly to describe the *structure* of information in a document, rather than its *appearance*. In theory, HTML browsers are responsible for handling display and layout. In practice, browsers make standard HTML look about as compelling as tax forms.

Structure has its uses. Structured documents can be fed into databases and searched easily. Their formatting can improve as HTML becomes more capable, enabling companies with large sets of documentation to enter information only once, then present it many different ways. This is of critical importance to people publishing large reference works, databases, searchable indexes, and documents for people with visual disabilities. As Tim Berners-Lee, the inventor of the Web, states:

Information to be published on the Web must also be formatted according to the rules of the Web standards. These standardized formats assure that all Web users who want to read the material will be able to view it.

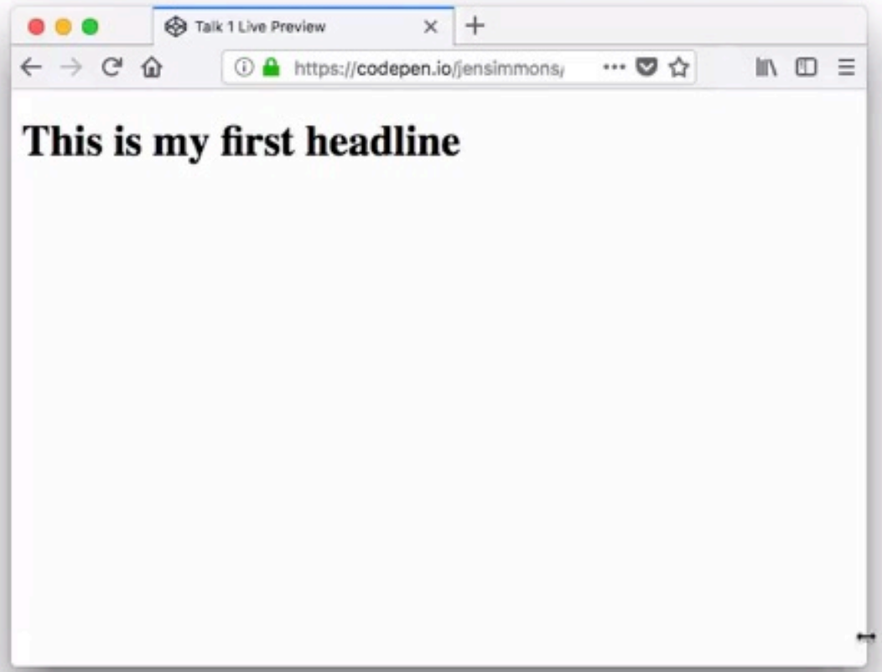
Different audiences have different needs. In a perfect world, markup and layout would be in balance. Instead, they are at polar extremes. Today, HTML is under heavy pressure from designers to be more visual, even as PostScript is being pushed to carry more structure.

What will happen in the future? Is the Web on a collision course with disaster? Will visually unimpaired designers battle against academic library scientists in a winner-take-all contest for the eyes and minds of web surfers everywhere?

Creating Killer Websites
David Siegel, 1996

Changing Approaches to Web Page Layout

Simple HTML


Talk 1 Live Preview
https://codepen.io/jensimmons/
This is my first headline

Flow

NCSA Mosaic Home Page - NCSA Mosaic

File Edit Source Manager View Navigate Tools Hotlists Help

Home Pages

http://atlantis.austin.apple.com/html/gan2/house.html

Here's the Homestead!

To navigate, just click in the direction you want to go. I've put in some navigation aids in places where there isn't any better solution. Many things in the various rooms are linked, and more and more will be linked as I get more time. There are also places that don't go anywhere at this time, but will later. This is very definitely evolving and growing as I get the time.

The pictures throughout the house were taken with an Apple QuickTake 100.

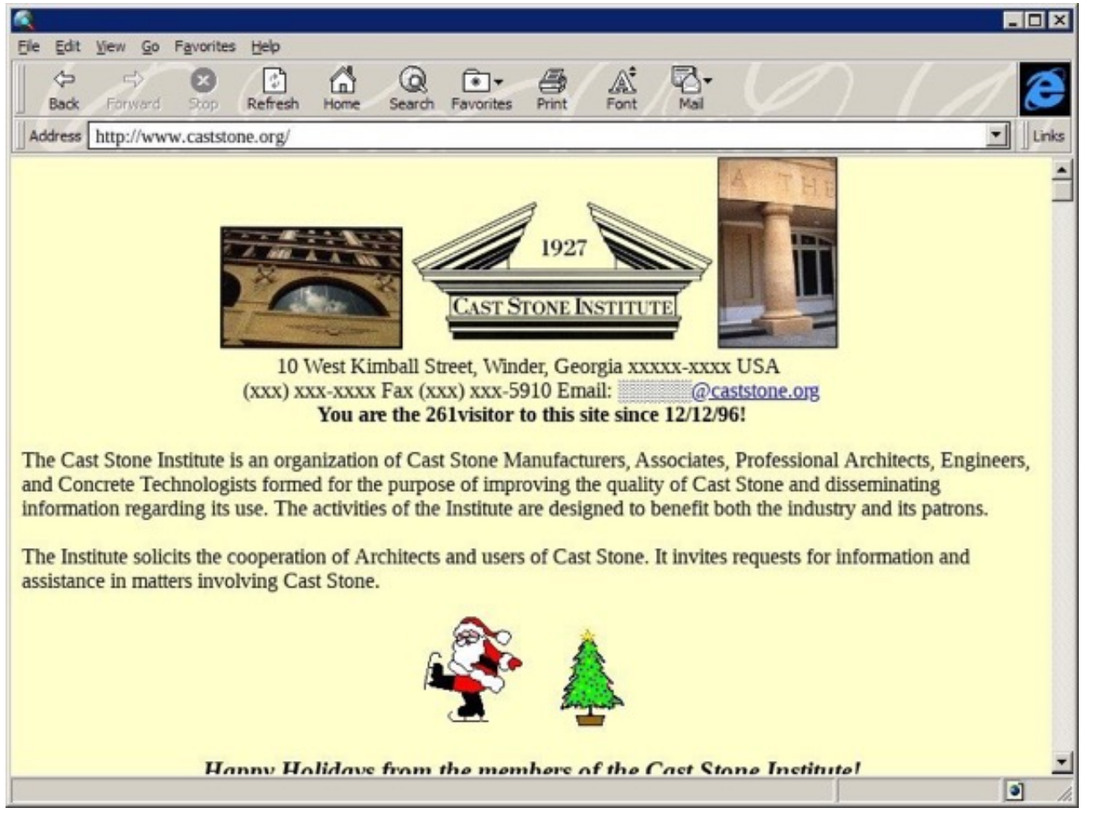
Send me some mail, tell me what you think.

I don't actually live there anymore, so I can't add much to it, but I'm stil interested in comments.

@outer.net

NCSA Mosaic Photo CD Metasearch

File Edit View Go Bookmarks Options Directory Help
Back Forward Home Reload Images Open Find Stop
Go to: http://www.cs.washington.edu/homes/brad/op/o.pops.html
Welcome What's New! What's Cool! Questions Net Search Net Directory
The Unofficial Otter Pops Home Page
(Home of the Six Zippy Flavors)
Otter Pops are a frozen taste sensation which are greatly enjoyed by the members of Le Chateau 109.d. Otter Pops were


File Edit View Go Favorites Help
Back Forward Stop Refresh Home Search Favorites Print Font Mail
Address http://www.caststone.org/
Links
1927
CAST STONE INSTITUTE
10 West Kimball Street, Winder, Georgia xxxxx-xxxx USA
(xxx) xxx-xxxx Fax (xxx) xxx-5910 Email: @caststone.org
You are the 261visitor to this site since 12/12/96!
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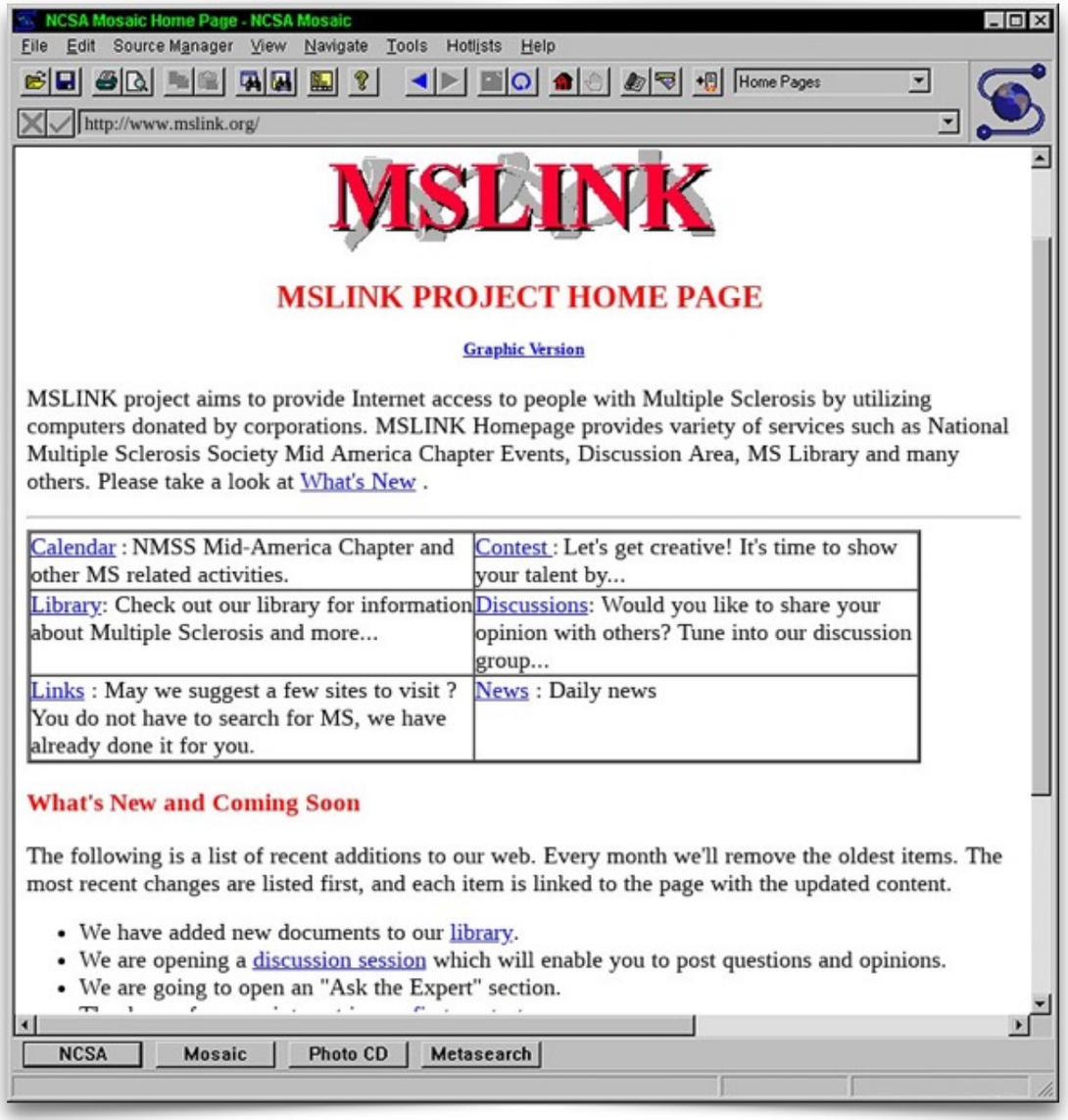
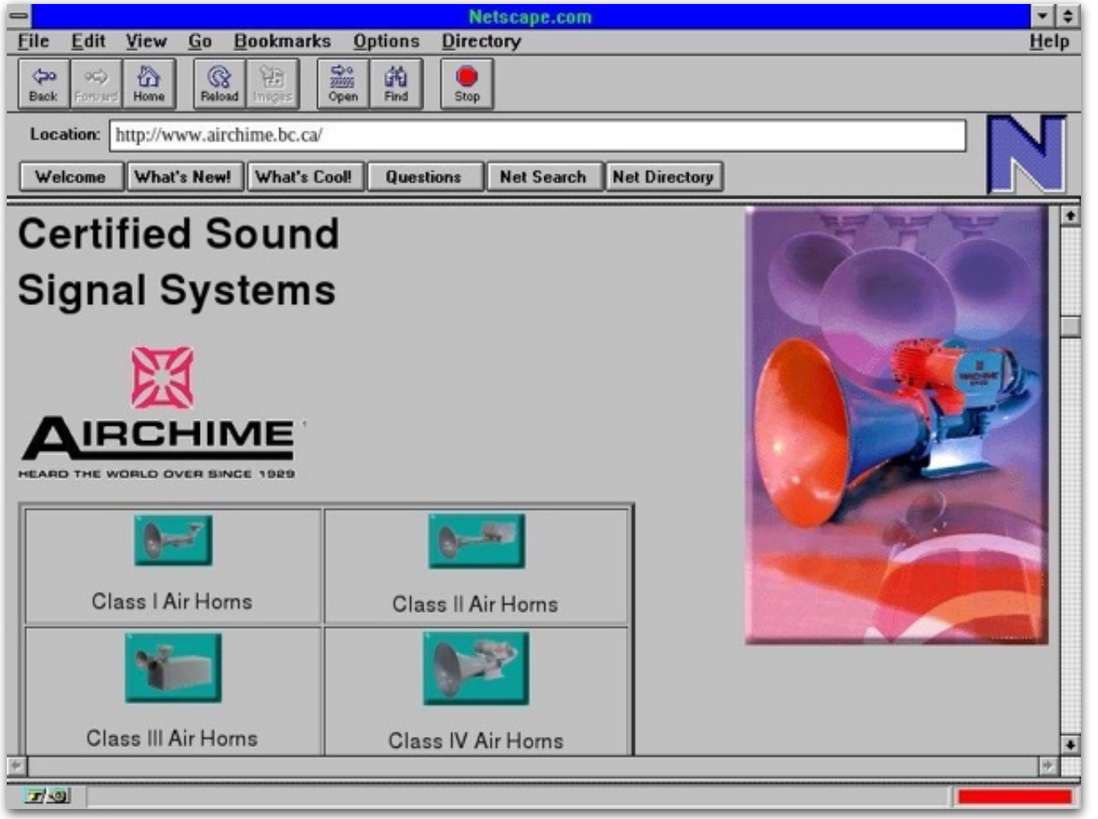
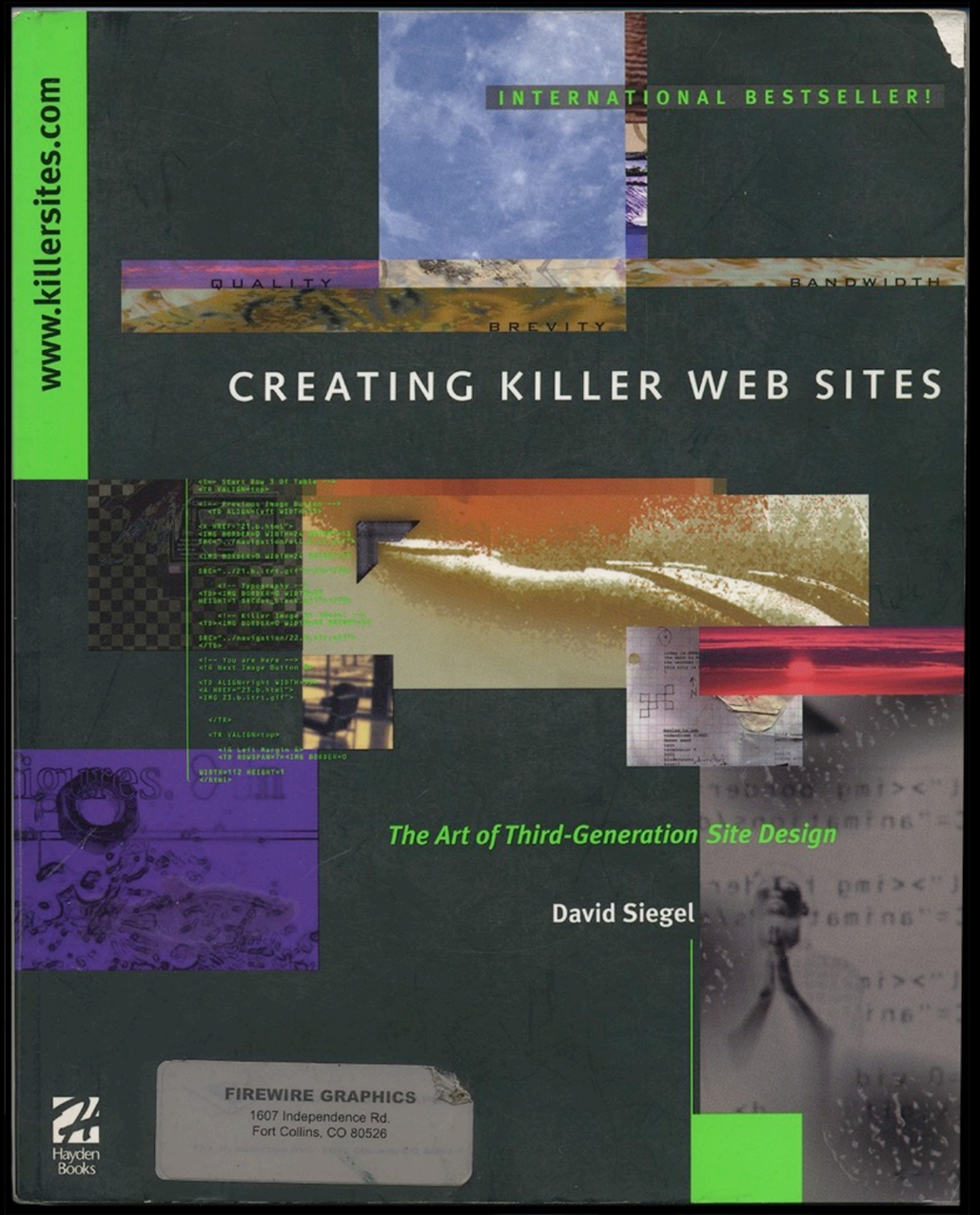
The Institute solicits the cooperation of Architects and users of Cast Stone. It invites requests for information and assistance in matters involving Cast Stone.
Happy Holidays from the members of the Cast Stone Institute!

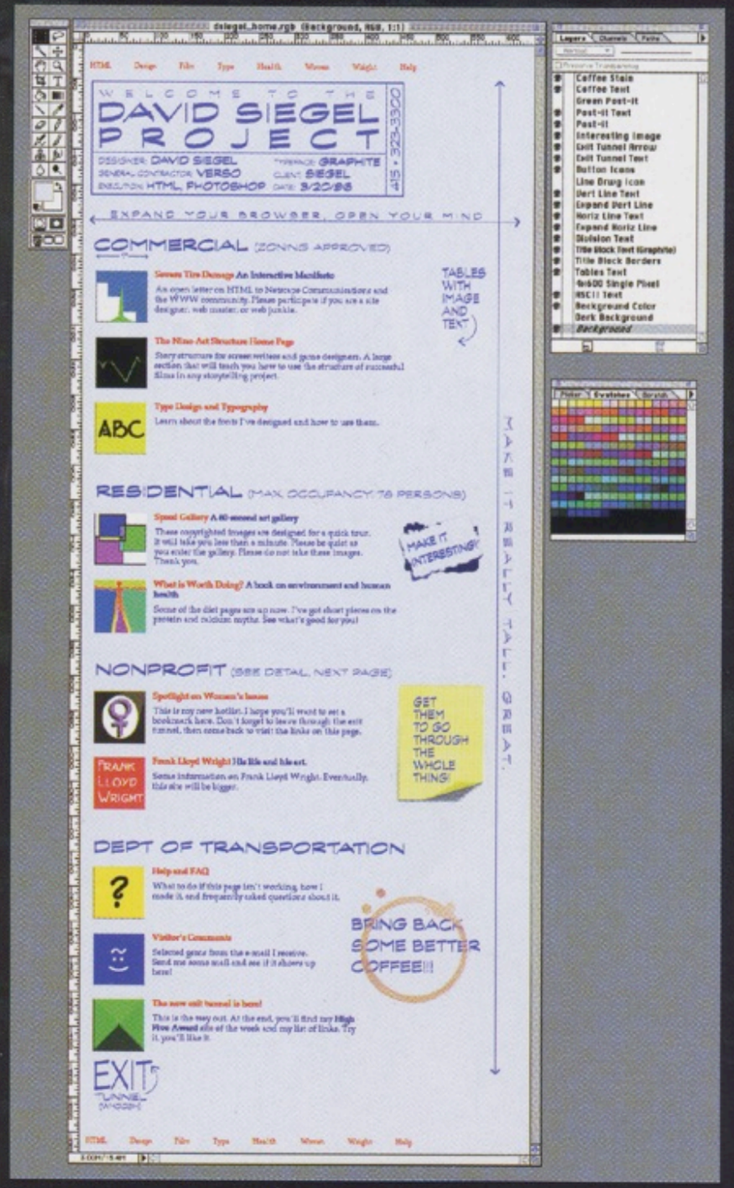

NCSA Mosaic Home Page - NCSA Mosaic
File Edit Source Manager View Navigate Tools Hotlists Help
Home Pages
http://www.mslink.org/
MSLINK
MSLINK PROJECT HOME PAGE
Graphic Version
MSLINK project aims to provide Internet access to people with Multiple Sclerosis by utilizing computers donated by corporations. MSLINK Homepage provides variety of services such as National Multiple Sclerosis Society Mid America Chapter Events, Discussion Area, MS Library and many others. Please take a look at What's New .
Calendar : NMSS Mid-America Chapter and other MS related activities.
Contest : Let's get creative! It's time to show your talent by...
Library: Check out our library for information about Multiple Sclerosis and more...
Discussions: Would you like to share your opinion with others? Tune into our discussion group...
Links : May we suggest a few sites to visit ? You do not have to search for MS, we have already done it for you.
News : Daily news
What's New and Coming Soon
The following is a list of recent additions to our web. Every month we'll remove the oldest items. The most recent changes are listed first, and each item is linked to the page with the updated content.
We have added new documents to our library.
We are opening a discussion session which will enable you to post questions and opinions.
We are going to open an "Ask the Expert" section.
NCSA
Mosaic
Photo CD
Metasearch


Netscape.com
File Edit View Go Bookmarks Options Directory Help
Back Forward Home Reload Images Open Find Stop
Location: http://www.airchime.bc.ca/
Welcome What's New! What's Cool! Questions Net Search Net Directory
Certified Sound Signal Systems
AIRCHIME
HEARD THE WORLD OVER SINCE 1929
Class I Air Horns
Class II Air Horns
Class III Air Horns
Class IV Air Horns

Tables for Layout


www.killersites.com
INTERNATIONAL BESTSELLER!
QUALITY
BANDWIDTH
BREVITY
CREATING KILLER WEB SITES
The Art of Third-Generation Site Design
David Siegel
FIREWIRE GRAPHICS
1607 Independence Rd.
Fort Collins, CO 80526
Hayden Books

1996



7.1 Make your mistakes in Photoshop, not HTML. Creating a layer for each element keeps things flexible.


```
<!-- PAGE PARAMETERS -->
<HTML><HEAD><TITLE>David Siegel's Home Page</TITLE></HEAD>
<BODY BGCOLOR="#EDEDFF" TEXT="#000055" LINK="#CC0000"
ALINK="#FF3300" VLINK="#005522">

<!-- BEGIN OUTERMOST TABLE -->
<TABLE BORDER="1" CELLSPACING="0" CELLPADDING="0" HEIGHT="1442">
<!-- Outermost table has only one row; this is the left
 side -->
  <TR>
 <TD WIDTH="570" HEIGHT="1442" VALIGN="top">
 <IMG VSPACE="0" HSPACE="0" WIDTH="455" HEIGHT="174" SRC="newhome/
   back_legend.gif">
 <IMG VSPACE="0" HSPACE="0" WIDTH="570" HEIGHT="37" SRC="newhome/
   arrow_horiz.gif">

  <!-- THIS CELL CONTAINS THE RIGHT EXPANSION ARROW -->
 <TD ALIGN="left" VALIGN="top"><IMG VSPACE="0"
  HSPACE="0" WIDTH="42" HEIGHT="1418" SRC="newhome/
   arrow_tall_vert.gif"></TD>
  </TR>
</TABLE>

</BODY></HTML>
```

two images. Without it, there would be a crack, giving away my trick.

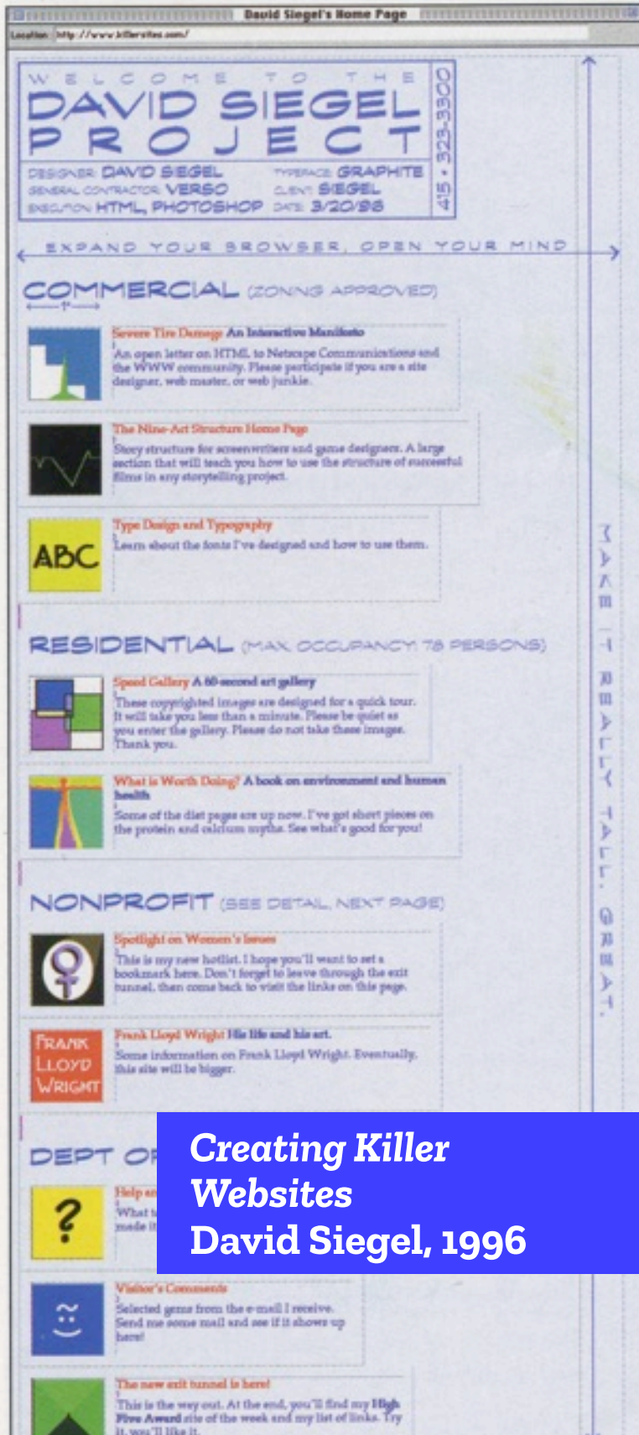
The Inner Tables

As the page takes shape, I plug in the cell contents one at a time. Once I splice the arrows back together, I can see the light at the end of the table. Right after that comes the "Commer-

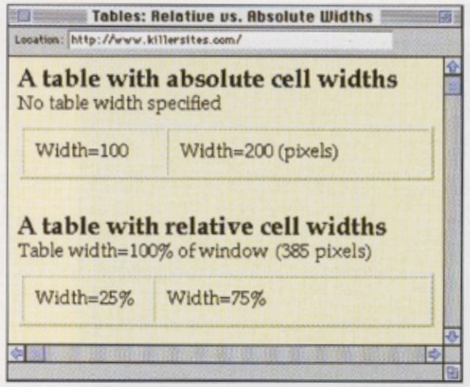
image individually. These little tables make it easy to copy and paste as individual units when I want to add new items to my page *(you can view the source* HTML *at the Book Site)* [7.14].

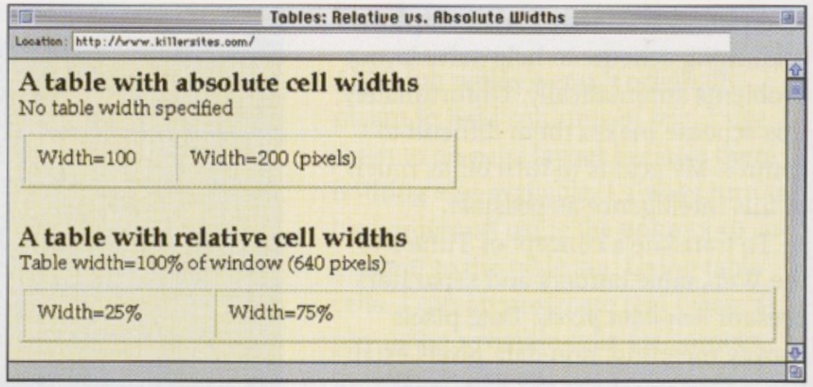
That's all there is to it. I add some text links at top and bottom, and I'm ready for visitors.

This page is not as flexible as I'd



Creating Killer Websites
David Siegel, 1996



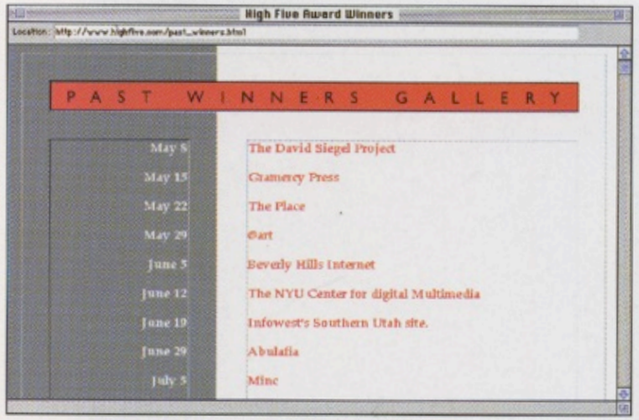


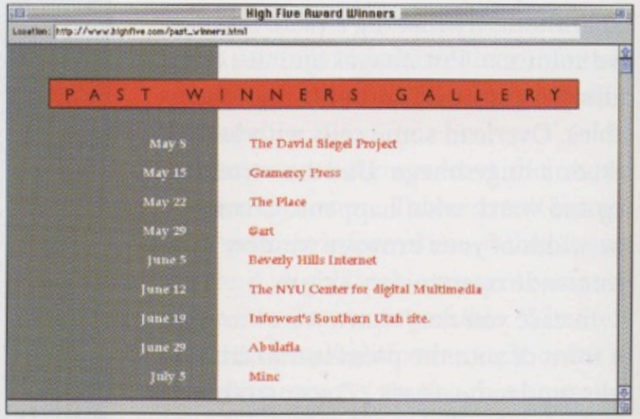
4.4 A, B Absolute widths keep columns from collapsing, whereas relative widths move with the browser window.

```
<TABLE BORDER="2">
 <TR>
  <TD WIDTH="100">
   Width=100
  </TD>
  <TD VALIGN=MIDDLE WIDTH="200">
   Width=200 (pixels)
  </TD>
 </TR>
</TABLE>
```

```
<TABLE BORDER="2">
 <TR>
  <TD WIDTH="25%">
   Width=25%
  </TD>
  <TD VALIGN=MIDDLE WIDTH="75%">
   Width=75%
  </TD>
 </TR>
</TABLE>
```

4.5 A, B HTML for absolute (LEFT) and relative (RIGHT) column widths.

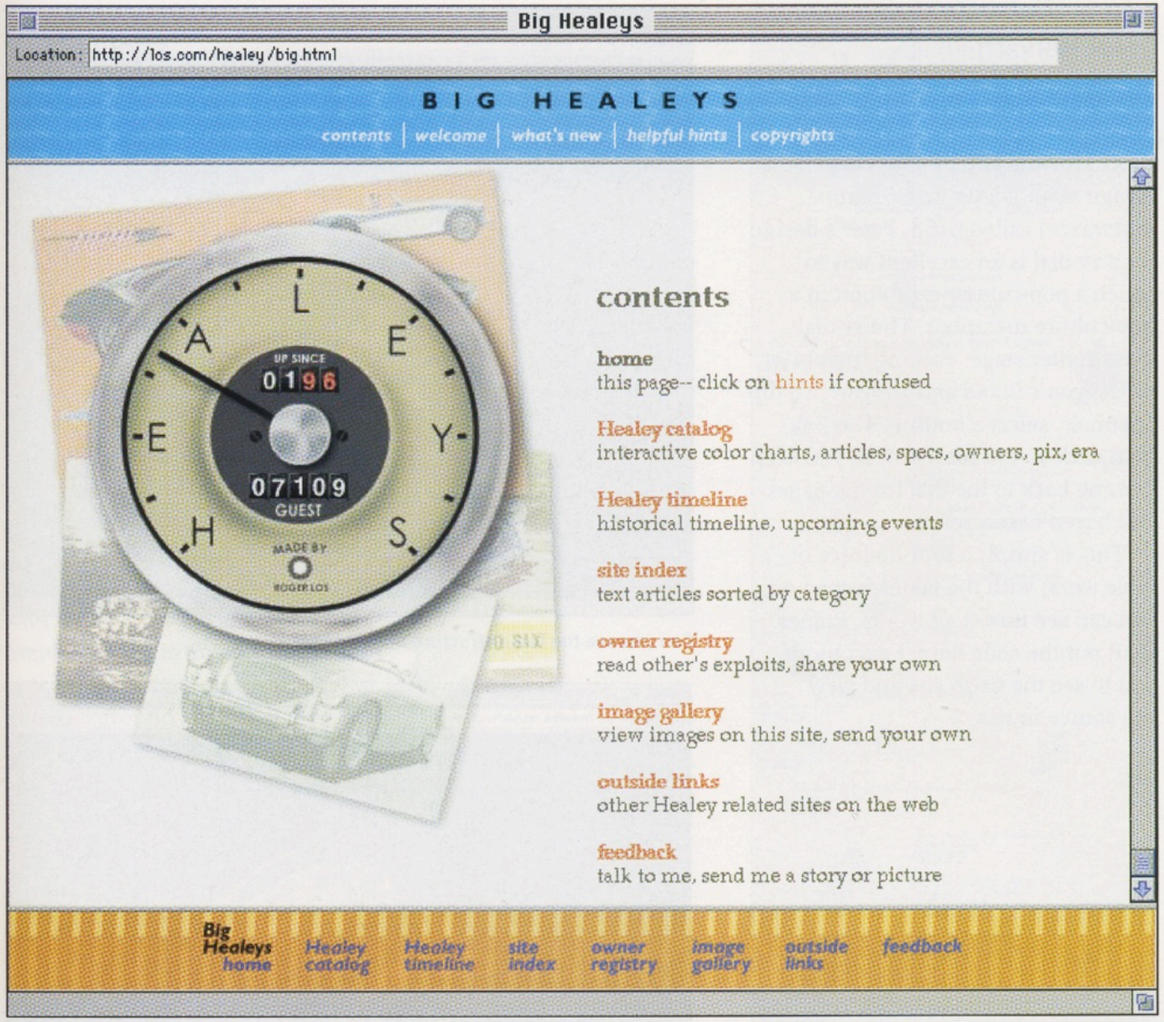




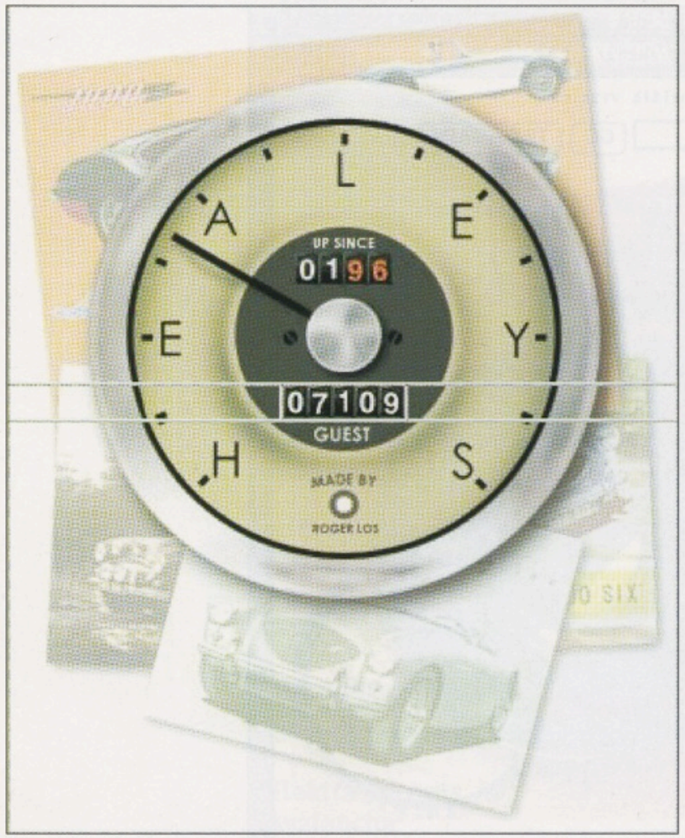
4.6 A, B Using cellspacing for white space assures a non-collapsible gutter. (Visit the page yourself and view the Document Source to see the HTML.)

Creating Killer Websites
David Siegel, 1996

Creating Killer Websites
David Siegel, 1996



The odometer on this dial really works!



Roger's clever trick: using a table to mortice four static images around one dynamic one.

Big Healeys
Roger Los

los.com/healey/big.html

Don't try this at home! Roger Los, an independent designer (and English sports car enthusiast) in Seattle, has created a very sophisticated frame-based site, using nested frames and JavaScript to keep the frames behaving well. Roger is a site designer with a rare blend of visual and technical acumen. The showpiece of the site is the speedometer dial that tells you what number visitor you are. Many sites have rotating counters; this is the only one I've seen that uses them well.

It's a simple enough trick: Take a photograph of a speedometer, cut it up, and replace the odometer with an active access counter. Doing it well is something else. Each digit is a separate GIF. A special program corellates the number to be displayed with the proper GIFs, spits out the HTML, and the whole page serves up dynamically. Go try it and see for yourself.

Locating Graphic Elements

On the Mac, to see how a page is built, click on individual graphic elements with your cursor, and move the mouse around slightly. You'll be able to "pick up" an image and move it around, pulling its outline out of place on the page so you can see how it fits with other elements. You can also use the View › Document Info command in Netscape Navigator to dissect a page.

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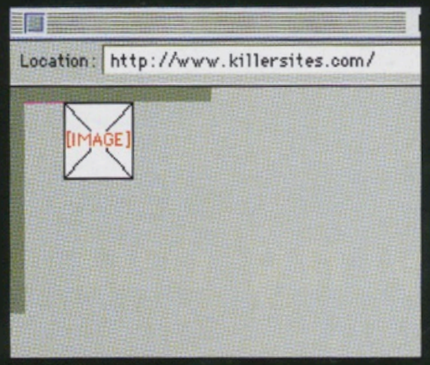
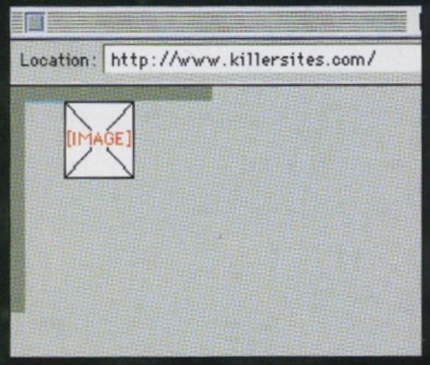
David Siegel, 1996

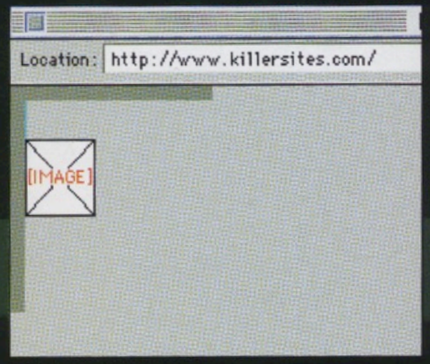


(A) <IMG SRC="resources/dot_clear.gif" HSPACE=10>

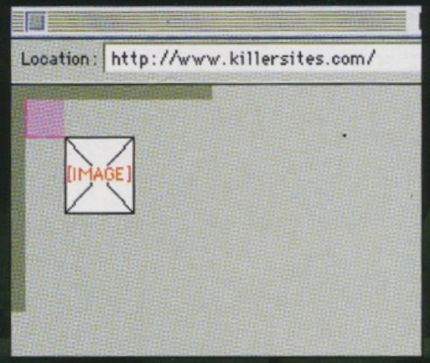


(B) <IMG SRC="resources/dot_clear.gif" WIDTH=21>

(C) <IMG SRC="resources/dot_clear.gif" VSPACE=10>

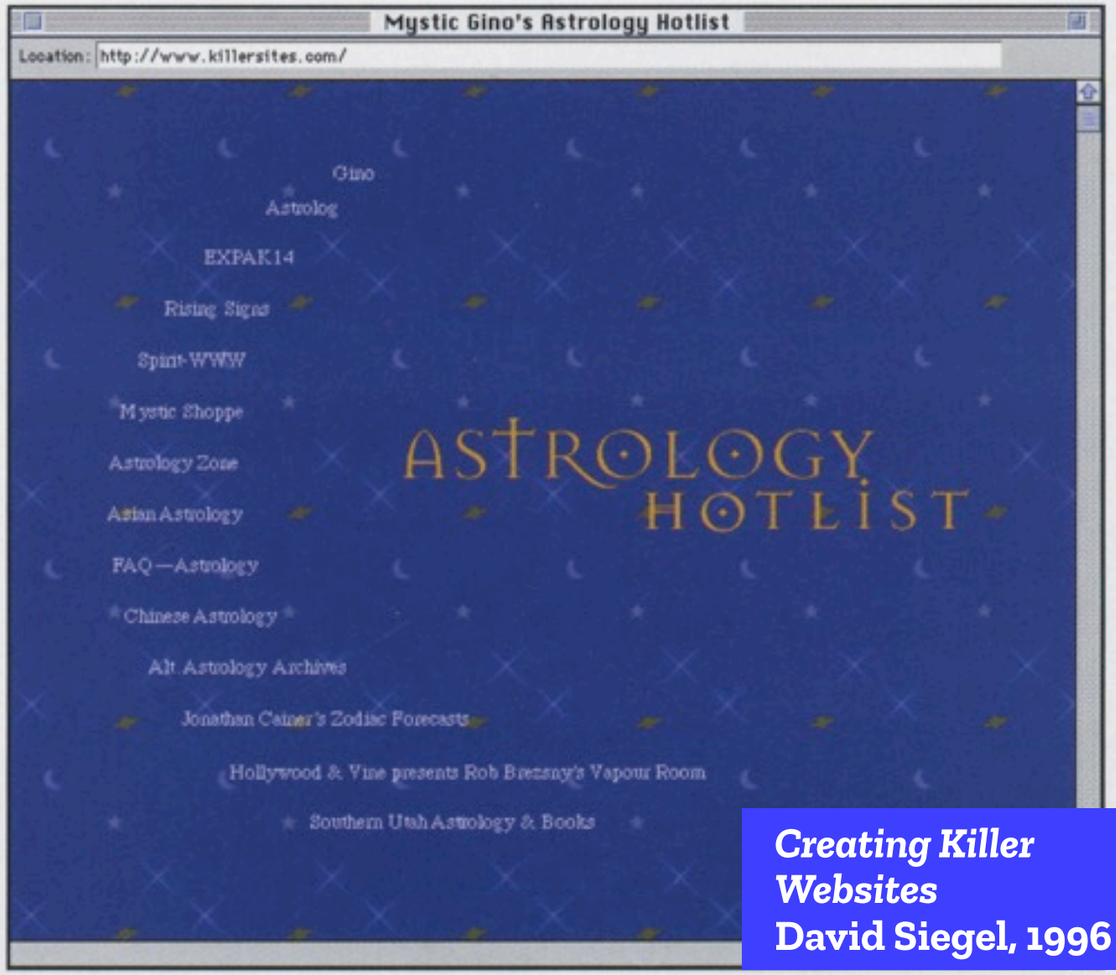


(D) <IMG SRC="resources/dot_clear.gif" HEIGHT=21>



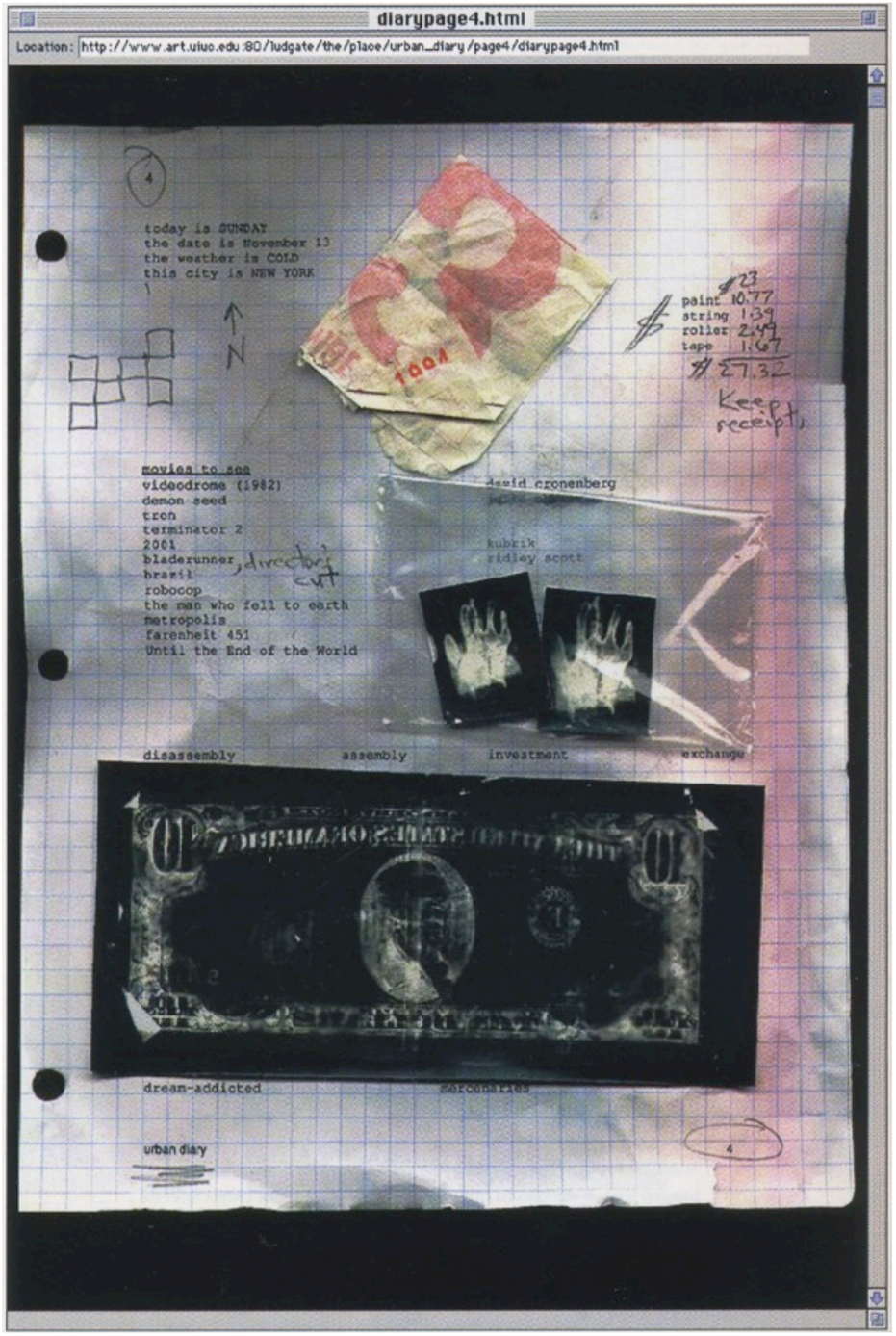
(E) <IMG SRC="resources/dot_clear.gif" VSPACE=10>
<IMG SRC="resources/dot_clear.gif" HSPACE=10>

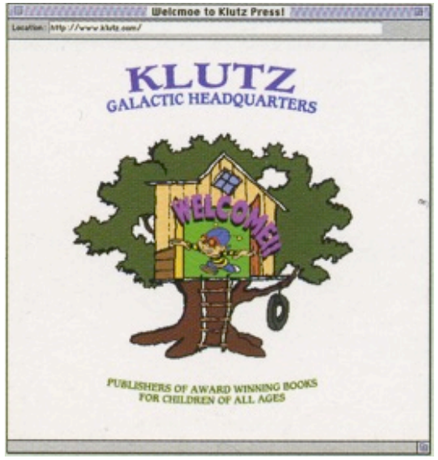
4.1 A-E I prefer HSPACE and VSPACE to WIDTH and HEIGHT. Here, the transparent pixel is enlarged and made blue, HSPACE or VSPACE is magenta, and the browser offsets are shown in dark gray.

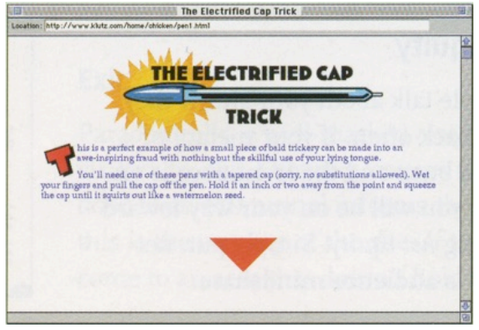


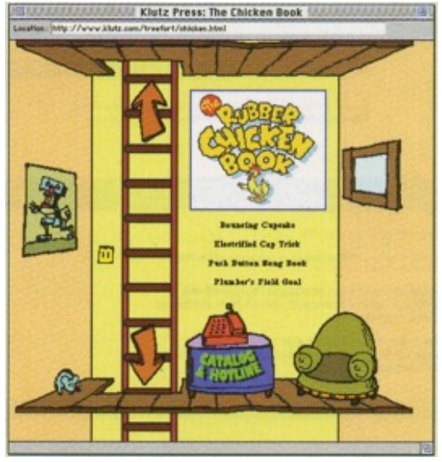
Creating Killer Websites
David Siegel, 1996

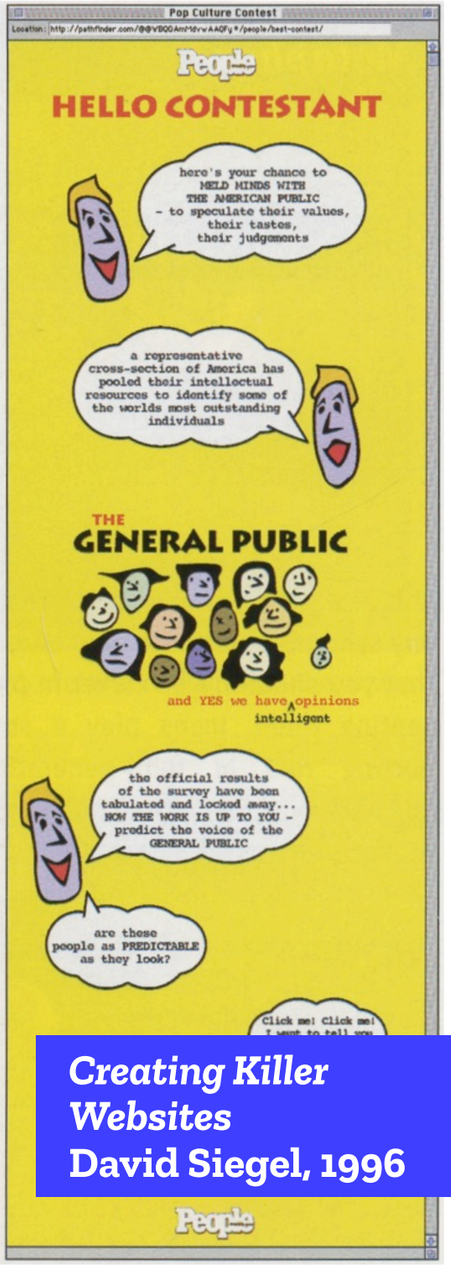
9.18 Here I've used single-pixel GIFs to lay out a hotlist.





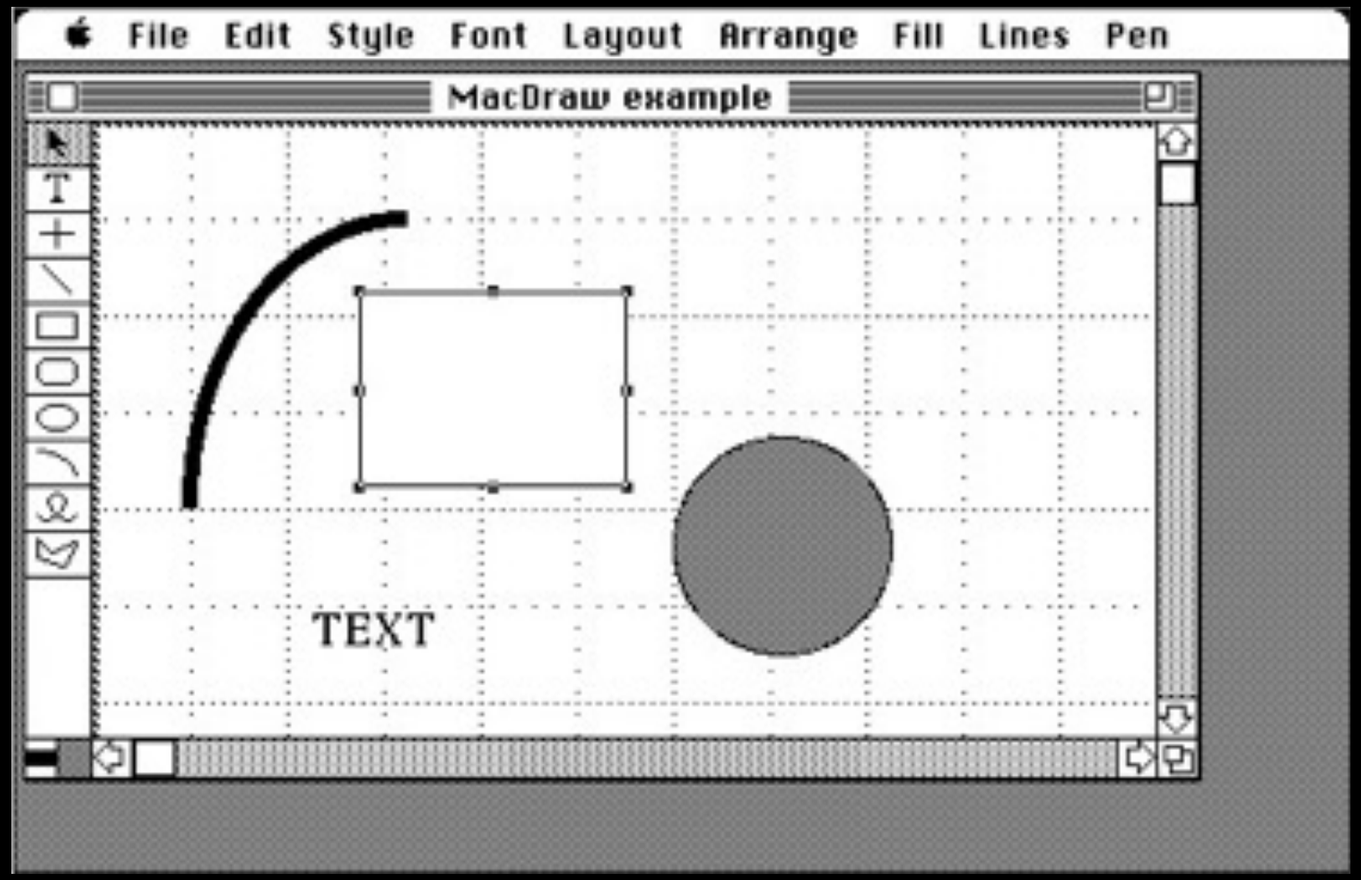






Creating Killer Websites
David Siegel, 1996

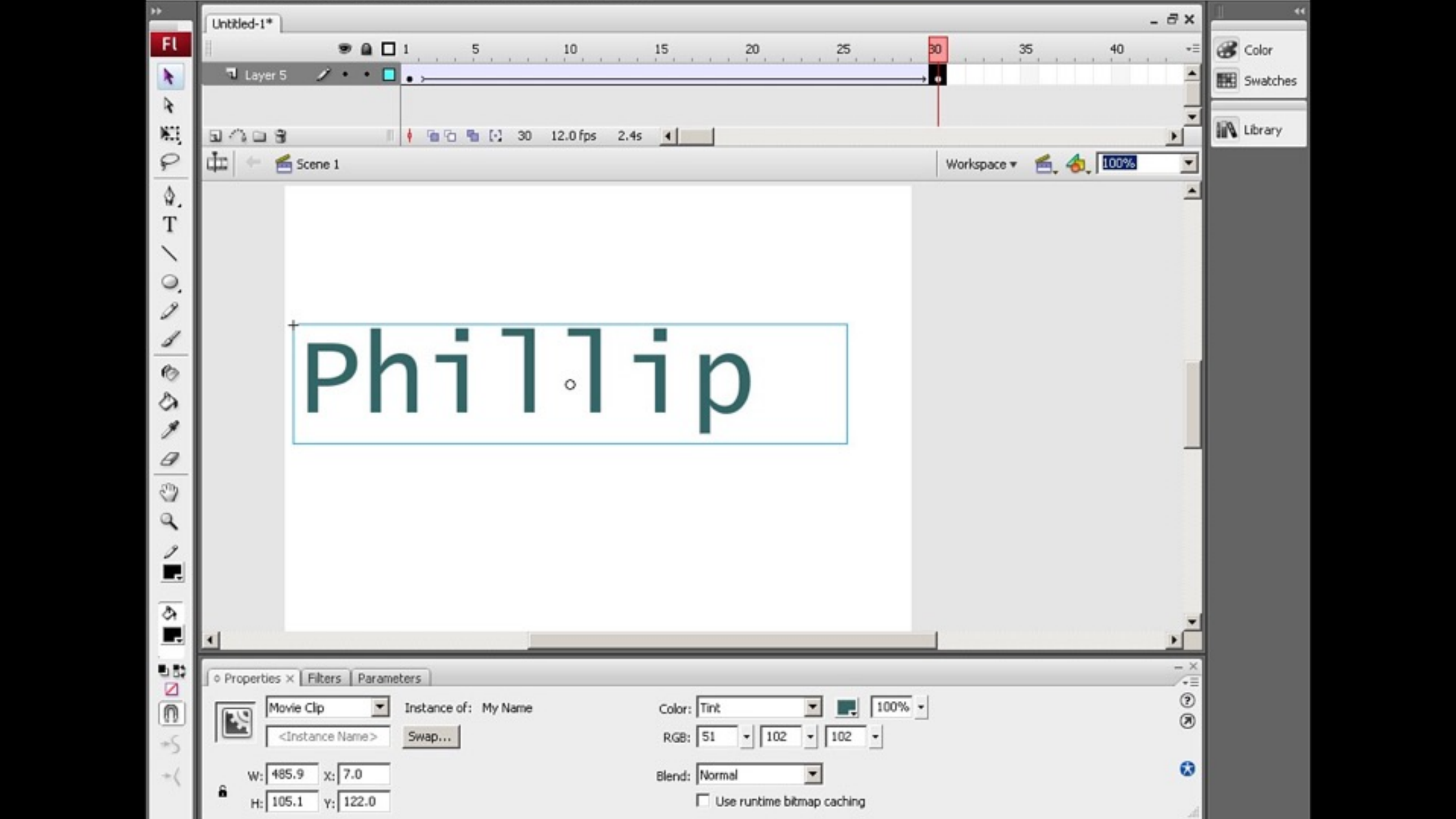
Flash

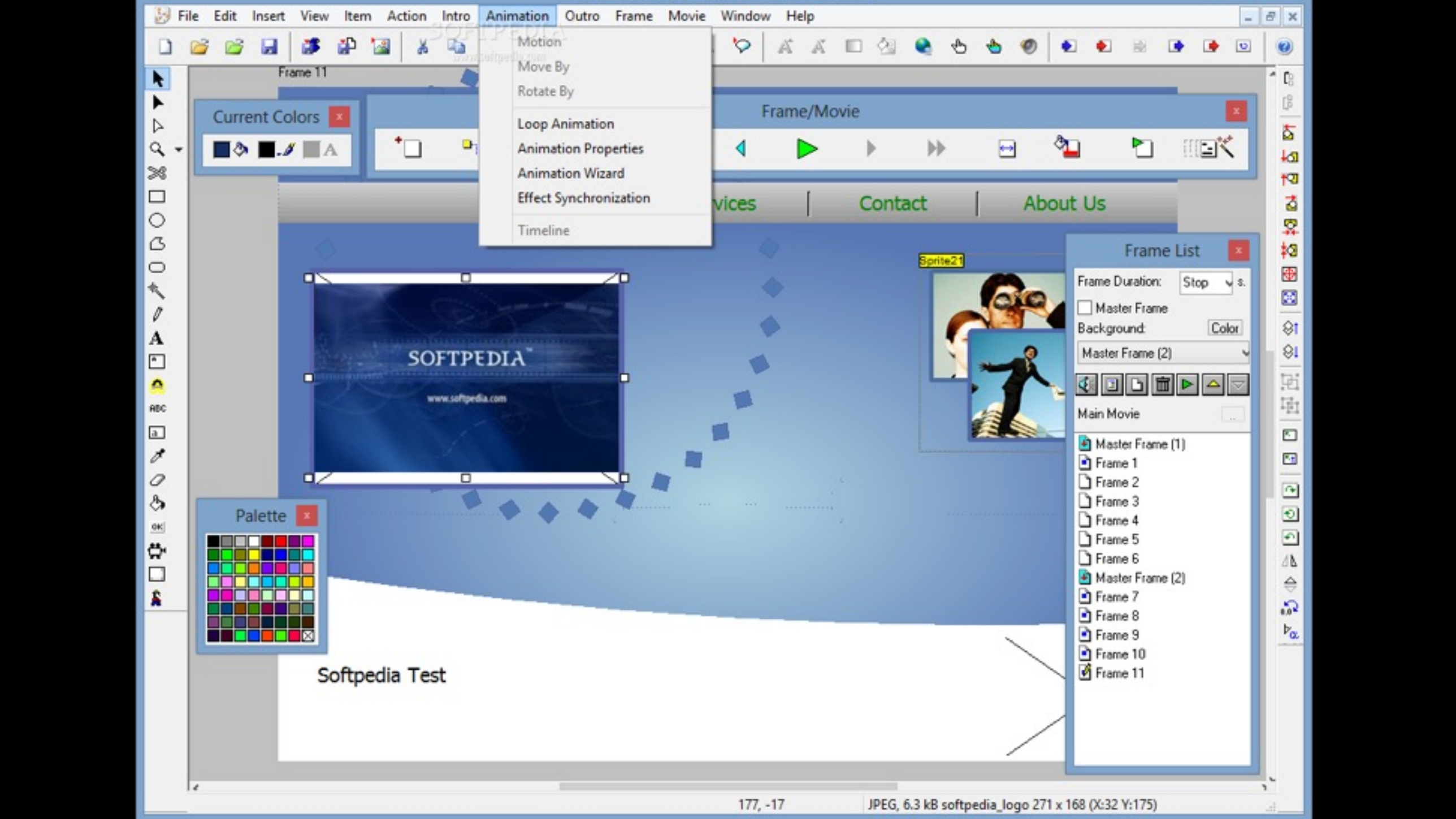

File Edit Style Font Layout Arrange Fill Lines Pen
MacDraw example
TEXT

1984

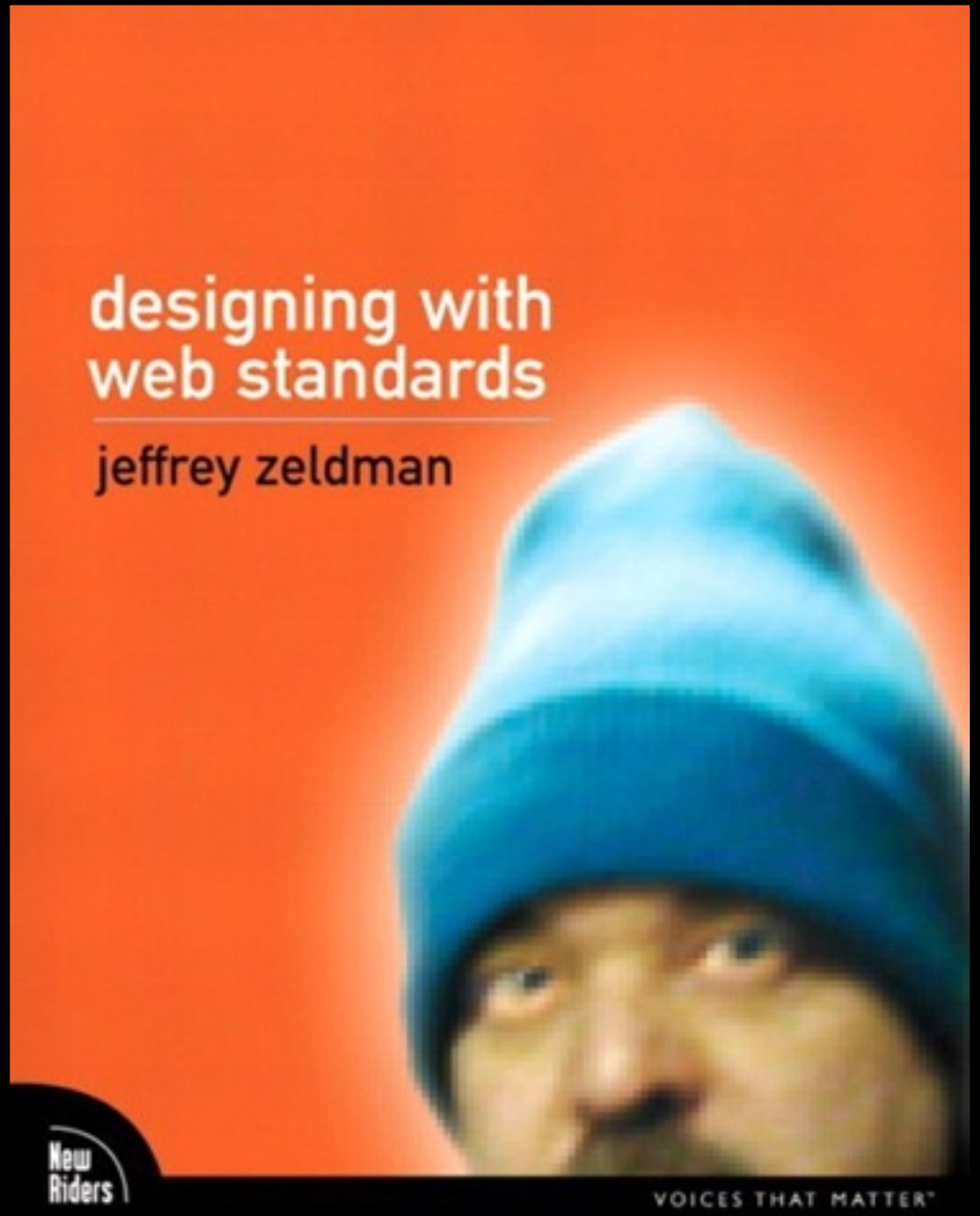
Flash Web Design
the art of motion graphics
BY HILLMAN CURTIS

2000


Untitled-1*
Layer 5
30
12.0 fps
2.4s
Scene 1
Workspace
100%
Phillip
Color
Swatches
Library
Properties
Filters
Parameters
Movie Clip
Instance of: My Name
<Instance Name>
Swap...
Color: Tint
100%
RGB: 51 102 102
Blend: Normal
Use runtime bitmap caching
W: 485.9 X: 7.0
H: 105.1 Y: 122.0


File Edit Insert View Item Action Intro Animation Outro Frame Movie Window Help
Motion
Move By
Rotate By
Loop Animation
Animation Properties
Animation Wizard
Effect Synchronization
Timeline
Frame 11
Current Colors
Frame/Movie
Contact
About Us
SOFTPEDIA
www.softpedia.com
Sprite21
Frame List
Frame Duration:
Stop
s.
Master Frame
Background:
Color
Master Frame (2)
Main Movie
Master Frame (1)
Frame 1
Frame 2
Frame 3
Frame 4
Frame 5
Frame 6
Master Frame (2)
Frame 7
Frame 8
Frame 9
Frame 10
Frame 11
Palette
Softpedia Test
177, -17
JPEG, 6.3 kB softpedia_logo 271 x 168 (X:32 Y:175)

CSS


designing with
web standards
jeffrey zeldman
New
Riders
VOICES THAT MATTER

2003

Note that image height and width attributes, although useful, are not strictly necessary. Note also that, thanks to CSS, the border attribute is entirely unnecessary, even though we have included it here for the sake of old browsers. Our markup *could* be as clean and simple as this:

```
<div id="primenav">
<a href="/"><img src="/i/home.gif" alt="Home" /></a>
<a href="/"><img src="/i/dailyreport.gif" alt=
"The Daily Report" /></a>
<a href="/glamorous/"><img src="/i/glamorouslife.gif" alt=
"My Glamorous Life" /></a>
<a href="/classics/"><img src="/i/classic.gif" alt=
" Classics, 1995-2002" /></a>
</div>
```

HTML web standards for CSS

Compare and contrast the compactness and clarity of the preceding markup with the typical table layout version shown here:

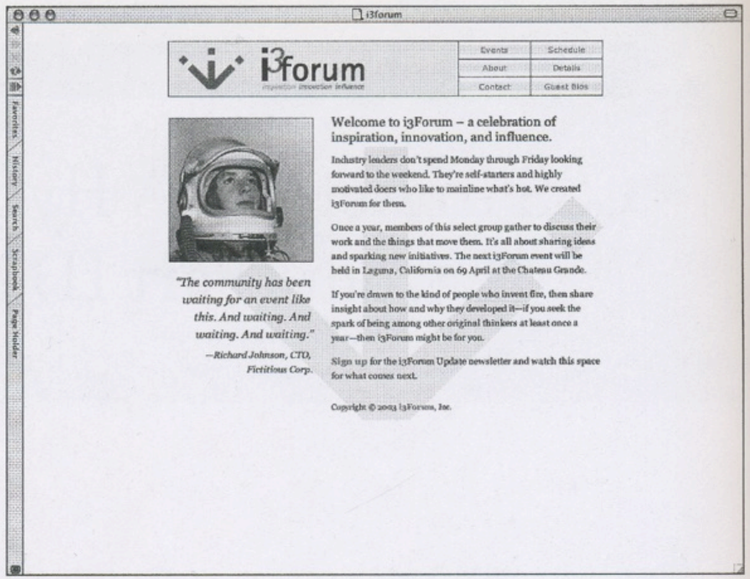
HTML Table Layout code

```
<table border="0" cellpadding="0" cellspacing="0" width="500">
<tr>
<td valign="top" width="150" height="100" bgcolor="#339999">
<a href="/"><img src="/i/home.gif" width="150" height="100"
border="0" alt="Home" /></a>
</td>
<td valign="top" width="140" height="100" bgcolor="#339999">
<a href="/"><img src="/i/dailyreport.gif" width="140" height=
"100" border="0" alt="The Daily Report" /></a>
</td>
<td valign="top" width="110" height="100" bgcolor="#339999">
<a href="/glamorous/"><img src="/i/glamorouslife.gif" width=
"110" height="100" border="0" alt="My Glamorous Life" /></a>
</td>
<td valign="top" width="100" height="100" bgcolor="#339999">
<a href="/classics/"><img src="/i/classic.gif" width="100"
height="100" border="0" alt=" Classics, 1995-2002" /></a>
</td>
</tr>
</table>
```

There's no contest. But compact markup and meta-structural thinking are *not* limited to CSS layouts. They can power and streamline table-based layouts, too.

Designing with Web Standards
Jeffrey Zeldman, 2003

Semantic Markup



10.1
The template as it appears after our first pass at CSS. Elements, sizes, fonts, and colors are in place, but backgrounds don't quite fill the right-side menu "buttons." A bit more work is needed.

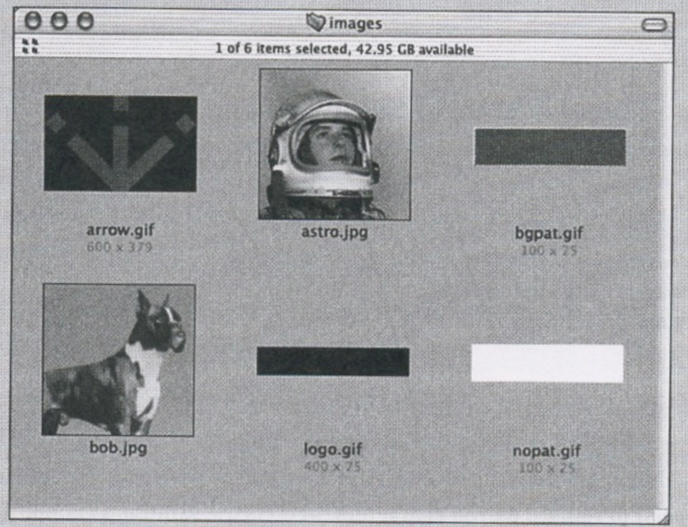
Preparing Images

Although the site was designed in Photoshop, it's not your typical slice and dice job. Figure **10.2** shows the six images used to create the entire site. Three are for foreground use: the astronaut photo, the "best of breed" dog photo, and the transparent logo GIF used at the top-left corner of the menu bar.

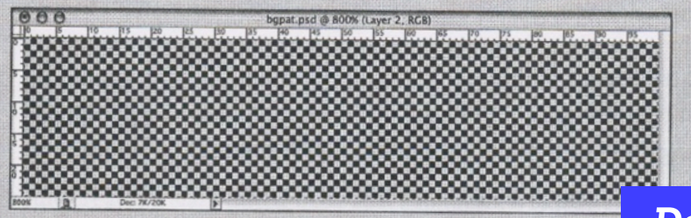
The remaining three images are backgrounds. Arrow.gif is a screened image derived from the logo that will be placed in the background as a watermark. Bgpat.gif [**10.3**], consisting of single-colored pixels alternating with single transparent pixels, will be used to create background color effects in the menu bar. Nopat.gif, a plain-white background, will replace bgpat.gif in CSS rollover effects and might also be used to indicate the visitor's position within the site's hierarchy via an embedded style added to each page at the end of the project (see the following sidebar, "The Needless Image").

The Needless Image

Strictly speaking, one of our six images is not needed in this execution. Nopat.gif, the plain-white background image [**10.2**], is superfluous. A CSS rule specifying `background: white` would have the same effect (and later in this chapter we'll use a rule like that instead of nopat.gif).



10.2
Just six images were used in this site, three of them as backgrounds. Photoshop's/ ImageReady's "slice and dice" features are not needed.



10.3
The alternating pixel background GIF image enlarged 800% and with a black background, inserted for this book's purposes, standing in for

For our nav bar, however, we've gone ahead and used this backg
anyway, so you can see how a CSS background image swap is ach
an execution involving swapped watermarked or textured backgrounds, you need two images; therefore, you would need to write the kind of CSS rules shown in this part of the chapter.

Designing with Web Standards
Jeffrey Zeldman, 2003

Fluid Layouts

AEA 2018 — Example 2, Fluid

AEA 2018 — Example 2.5, Fluid

https://codepen.io/jensimmons

This is my first headline

Lorem ipsum dolor sit amet consectetur adipiscing, elit inceptos nunc et litora, cras class id morbi viverra. Leo in hac vel sed molestie fringilla fusce orci, dis nibh pharetra quisque inceptos interdum tortor, porta parturient varius magna curae feugiat vestibulum egestas, suscipit facilisi accumsan torquent aptent lobortis. Non dictum feugiat himenaeos consequat per odio ante porta eget senectus, ac accumsan ligula laoreet vivamus sociis mollis habitasse magna, felis massa dis id malesuada donec ut pulvinar iaculis.

Let's center the second even longer headline

Nullam bibendum hendrerit augue, sed tempus odio sagittis nec. Ut ipsum lorem, scelerisque ac vestibulum et, tincidunt eget urna. Phasellus pellentesque nec urna id elementum. Maecenas a urna metus. Vivamus ac euismod ante. Vivamus ut risus porttitor, porttitor ligula a, maximus risus. Donec maximus vulputate mauris, vel placerat diam interdum eu. Nam tempus diam eget blandit efficitur. Etiam sed porta nisi. Donec sit amet sapien in est pellentesque sollicitudin. Donec nec erat efficitur, efficitur purus vel, vehicula odio. Fusce eget placerat massa, vel porta lacus. Proin consectetur finibus lacinia.

AEA 2018 — Example 2, Fluid

AEA 2018 — Example 2.5, Fluid

https://codepen.io/jensimmons/live/vRRbJe

Let's center the second even longer headline

Nullam bibendum hendrerit augue, sed tempus odio sagittis nec. Ut ipsum lorem, scelerisque ac vestibulum et, tincidunt eget urna. Phasellus pellentesque nec urna id elementum. Maecenas a urna metus. Vivamus ac euismod ante. Vivamus ut risus porttitor, porttitor ligula a, maximus risus. Donec maximus vulputate mauris, vel placerat diam interdum eu. Nam tempus diam eget blandit efficitur. Etiam sed porta nisi. Donec sit amet sapien in est pellentesque sollicitudin. Donec nec erat efficitur, efficitur purus vel, vehicula odio. Fusce eget placerat massa, vel porta lacus. Proin consectetur finibus lacinia.

This is my first headline

Lorem ipsum dolor sit amet consectetur adipiscing, elit inceptos nunc et litora, cras class id morbi viverra. Leo in hac vel sed molestie fringilla fusce orci, dis nibh pharetra quisque inceptos interdum tortor, porta parturient varius magna curae feugiat vestibulum egestas, suscipit facilisi accumsan torquent aptent lobortis. Non dictum feugiat himenaeos consequat per odio ante porta eget senectus, ac accumsan ligula laoreet vivamus sociis mollis habitasse magna, felis massa dis id malesuada donec ut pulvinar iaculis.

Fluid Columns

It's the web!

We need art!

Fixed-Width Layouts

AEA 2018 — Example 3, Fixed

https://codepen.io/jensimmons/live/GxxeBV

This is now the first set of content

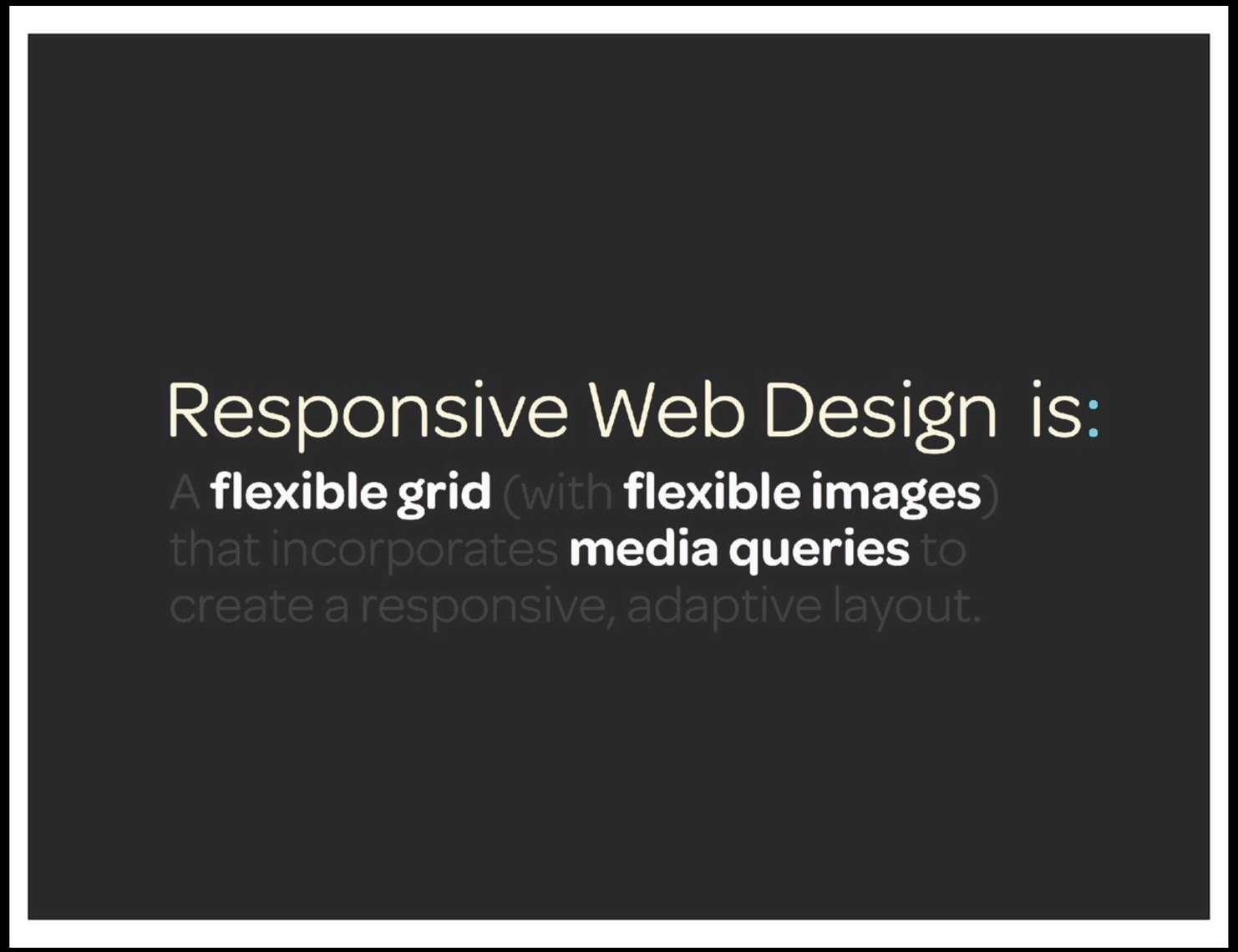
Nullam bibendum hendrerit augue, sed tempus odio sagittis nec. Ut ipsum lorem, scelerisque ac vestibulum et, tincidunt eget urna. Phasellus pellentesque nec urna id elementum. Maecenas a urna metus. Vivamus ac euismod ante. Vivamus ut risus porttitor, porttitor ligula a, maximus risus. Donec maximus vulputate mauris, vel placerat diam interdum eu. Nam tempus diam eget blandit efficitur. Etiam sed porta nisi. Donec sit amet sapien in est pellentesque sollicitudin. Donec nec

This is my first headline

Lorem ipsum dolor sit amet consectetur adipiscing, elit inceptos nunc et litora, cras class id morbi viverra. Leo in hac vel sed molestie fringilla fusce orci, dis nibh pharetra quisque inceptos interdum tortor, porta parturient varius magna curae feugiat vestibulum egestas, suscipit facilisi accumsan torquent aptent lobortis. Non dictum feugiat himenaeos consequat per odio ante porta eget senectus, ac accumsan ligula laoreet vivamus sociis mollis habitasse magna, felis massa dis id malesuada donec ut pulvinar iaculis.

Fixed-sized Content

Responsive Web Design



2010

Ethan Marcotte
AEA 2010

AEA 2018 — Example 4, Respo

https://codepen.io/jensimmons/live/wmmNPY

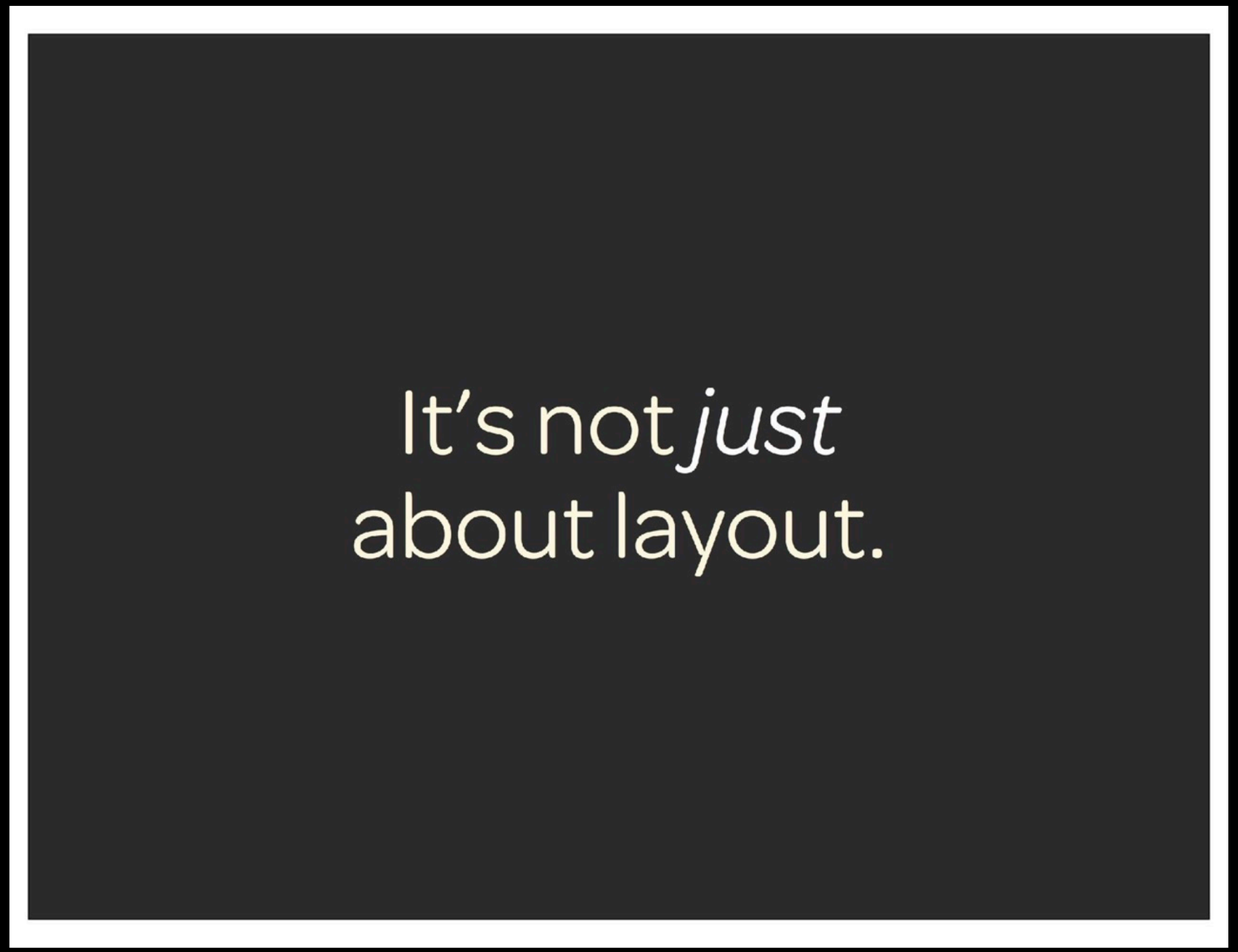
This is the Article with a Longer Headline

Nullam bibendum hendrerit augue, sed tempus odio sagittis nec. Ut ipsum lorem, scelerisque ac vestibulum et, tincidunt eget urna. Phasellus pellentesque nec urna id elementum. Maecenas a urna metus. Vivamus ac euismod ante. Vivamus ut risus porttitor, porttitor ligula a, maximus risus. Donec maximus vulputate mauris, vel placerat diam interdum eu. Nam tempus diam eget blandit efficitur. Etiam sed porta nisi. Donec sit amet sapien in est pellentesque sollicitudin. Donec nec erat efficitur, efficitur purus vel, vehicula odio. Fusce eget placerat massa, vel porta lacus. Proin consectetur finibus

This is my sidebar headline

Lorem ipsum dolor sit amet consectetur adipiscing, elit inceptos nunc et litora, cras class id morbi viverra. Leo in hac vel sed molestie fringilla fusce orci, dis nibh pharetra quisque inceptos interdum tortor, porta parturient varius magna curae feugiat vestibulum egestas, suscipit facilisi accumsan torquent aptent lobortis. Non dictum feugiat himenaeos consequat per odio ante porta eget senectus, ac accumsan ligula laoreet vivamus sociis mollis habitasse magna, felis massa dis id malesuada donec ut pulvinar iaculis.

Fluid Images & Media Queries



2010

Ethan Marcotte
AEA 2010

Responsive Web Design
has been about so much more than layout.

MOBILE STRATEGY

WHAT'S M?

M DOT WEBSITE?

ONE WEB

SCREEN SIZE?

UNKNOWN

M CONTEXT?

NO SUCH THING

DESKTOP & MOBILE ORG

REORG

BUT CONTENT WON'T FIT

TRUNC

THINK SINGLE COLUMN / M FIRST

MANY SYSTEMS

HEADLESS CMS

IMAGES BIG

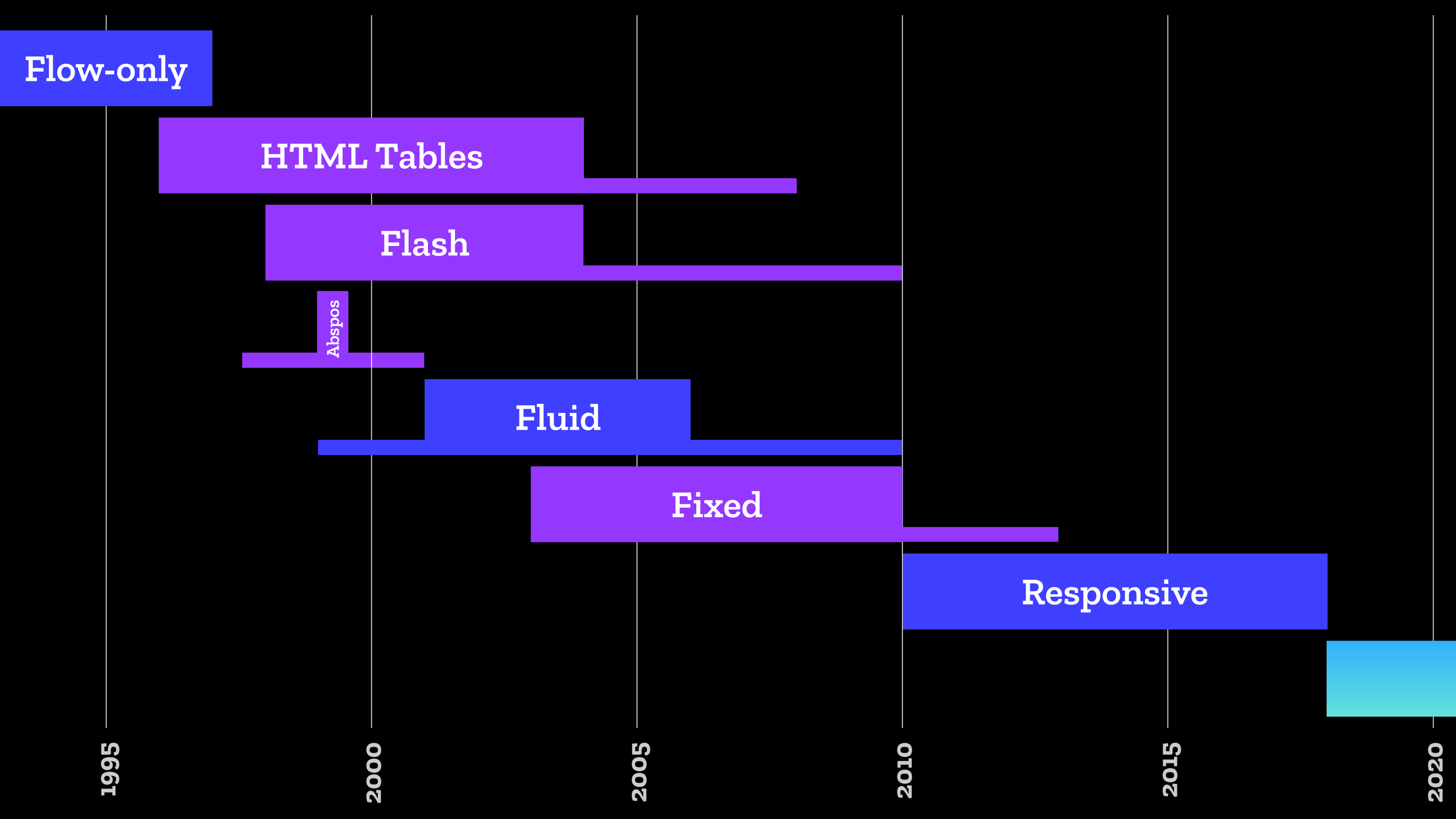
RESPONSIVE IMAGES

PERFORMANCE

BUDGET SPEED

MOBILE STRATEGY
WHAT'S M?
M DOT WEBSITE?
ONE WEB
SCREEN SIZE?
UNKNOWN
THING
REORG
TRUNC
FIRST
MANY SYSTEMS
HEADLESS CMS
IMAGES BIG
RESPONSIVE IMAGES
PERFORMANCE
BUDGET SPEED
YES.

But let's do talk about **layout.**


Flow-only
HTML Tables
Flash
Abspos
Fluid
Fixed
Responsive
1995
2000
2005
2010
2015
2020

Intrinsic Web Design

Flexible Images

Flexible images
or Fixed images,
your choice

Flexible (Faux) Column Grid

Real Grid
Rows & Columns
Fixed, fluid, content-sized

Media Queries

Media Queries, as needed

Create set of layouts for different screens.

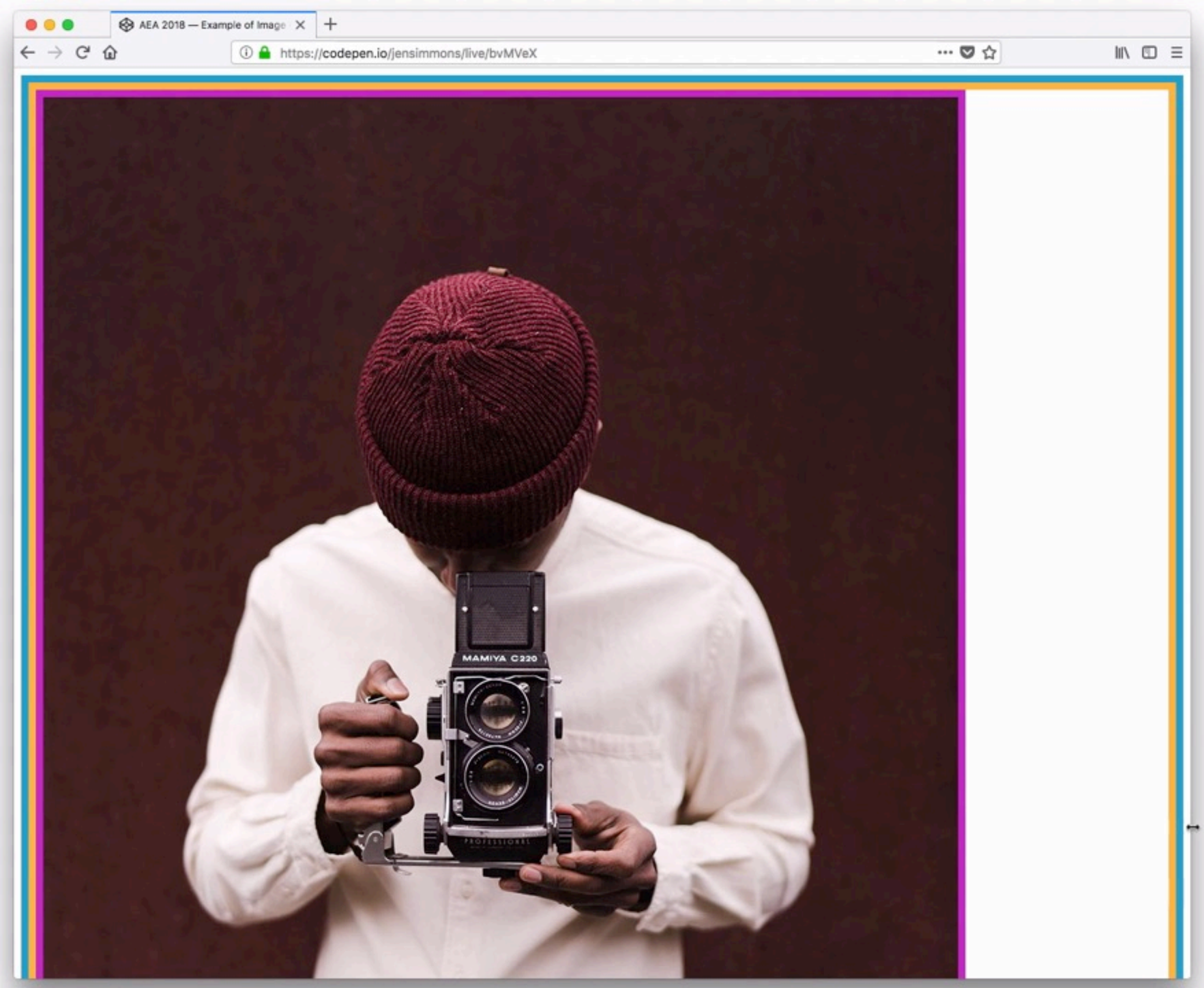
Design a flexibility model for your system of content.

Intrinsic Web Design

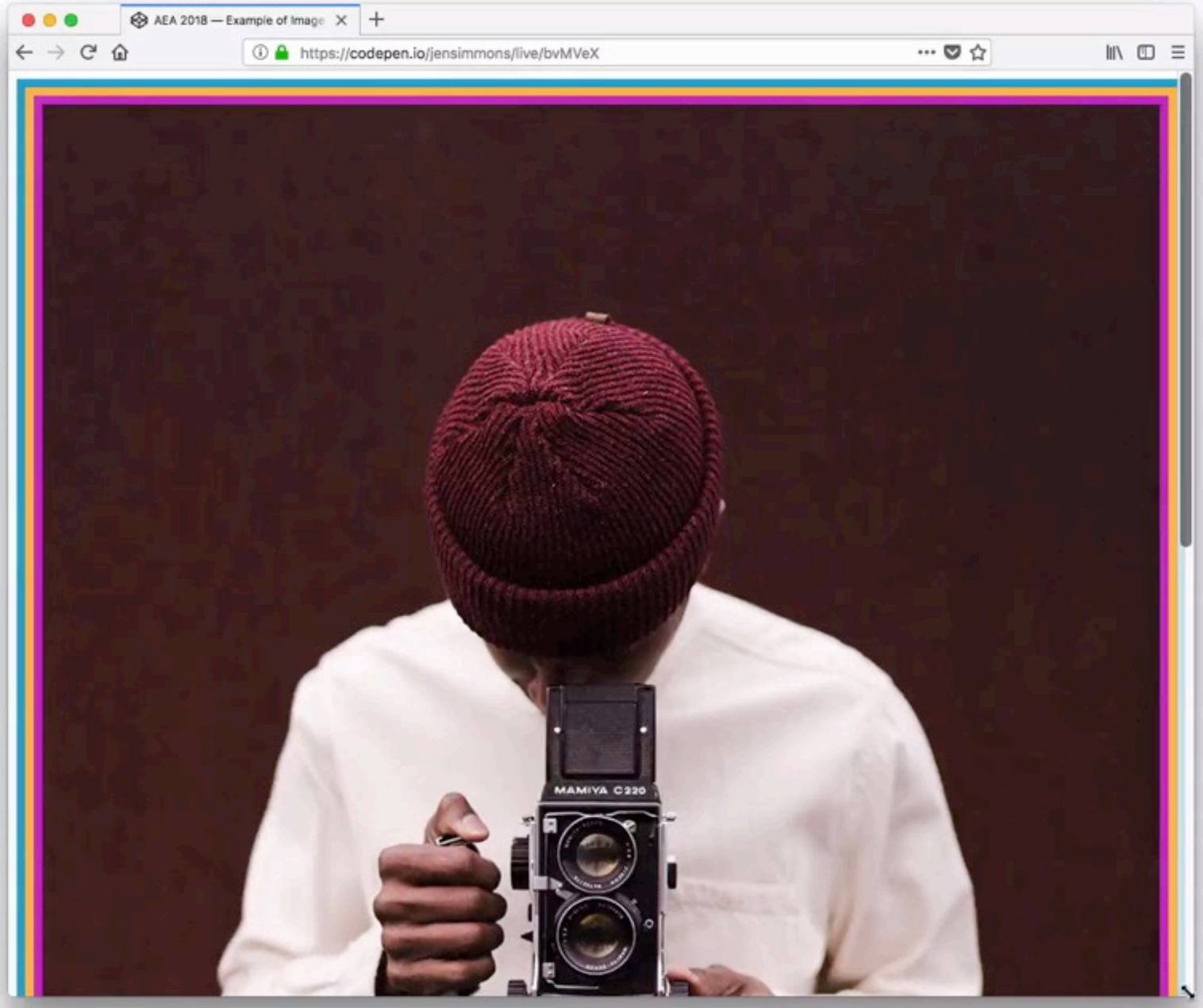
1. Mix Fluid with Fixed

Images

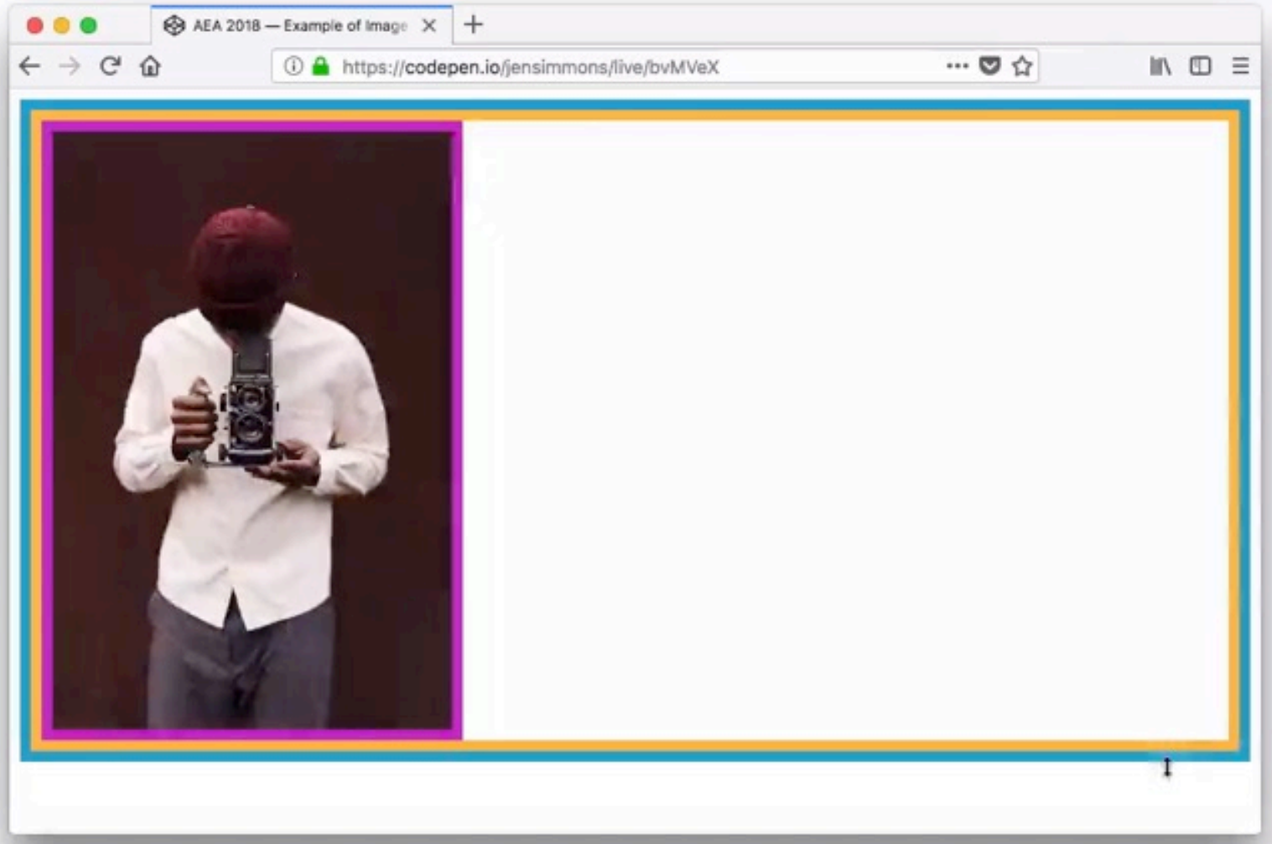
Fixed Images, like pre-RWD


AEA 2018 — Example of Image
https://codepen.io/jensimmons/live/bvMVeX
MAMIYA C220
PROFESSIONAL

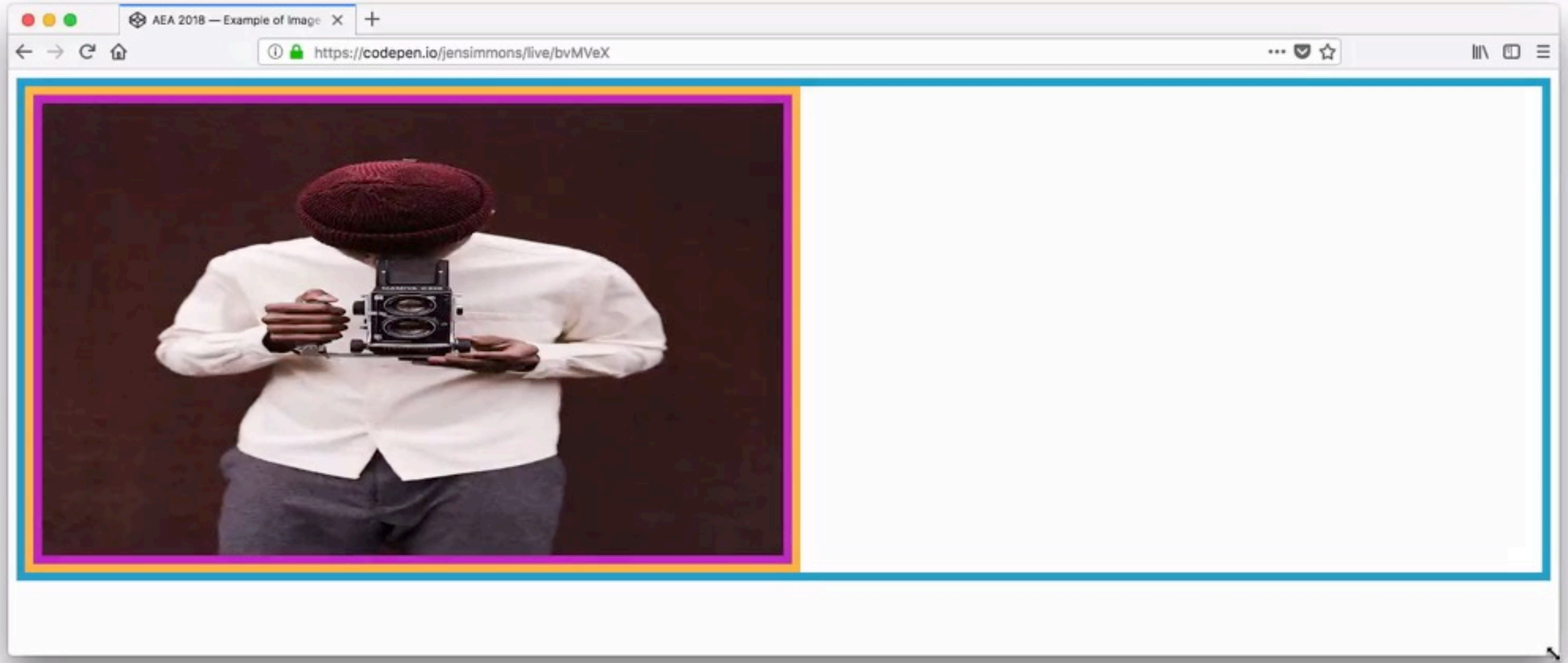
Fluid Images, like RWD


AEA 2018 — Example of Image
https://codepen.io/jensimmons/live/bvMVeX
MAMIYA C220

Fluid, vertically


AEA 2018 — Example of Image
https://codepen.io/jensimmons/live/bvMVeX

Set width & height


AEA 2018 — Example of Image
https://codepen.io/jensimmons/live/bvMVeX

Tracks

Better way to squish fluid grids

3fr

Article with a Headline

Nullam bibendum hendrerit augue, sed tempus odio sagittis nec. Ut ipsum lorem, scelerisque ac vestibulum et, tincidunt eget urna. Phasellus pellentesque nec urna id elementum. Maecenas a urna metus. Vivamus ac euismod ante. Vivamus ut risus porttitor, porttitor ligula a, maximus risus. Donec maximus vulputate mauris, vel placerat diam interdum eu. Nam tempus diam eget blandit efficitur. Etiam sed porta nisi. Donec sit amet sapien in est pellentesque sollicitudin. Donec nec erat efficitur, efficitur purus vel, vehicula odio. Fusce eget placerat massa, vel porta lacus. Proin consectetur finibus lacinia.

1fr

Sidebar Headlinnne

Lorem ipsum dolor sit amet consectetur adipiscing, elit inceptos nunc et litora, cras class id morbi viverra. Leo in hac vel sed molestie fringilla fusce orci, dis nibh pharetra quisque inceptos interdum tortor, porta parturient varius magna curae feugiat vestibulum egestas, suscipit facilisi accumsan torquent aptent lobortis. Non dictum feugiat himenaeos consequat per odio ante porta eget senectus, ac accumsan ligula laoreet vivamus sociis mollis habitasse magna, felis massa dis id malesuada donec ut pulvinar iaculis.

```
main {
  display: grid;
  grid-template-columns: 3fr 1fr;
  grid-gap: 0 2rem;
}

img {
  width: 300px;
}
```

Mix fixed and fluid

3fr

Article with a Headline

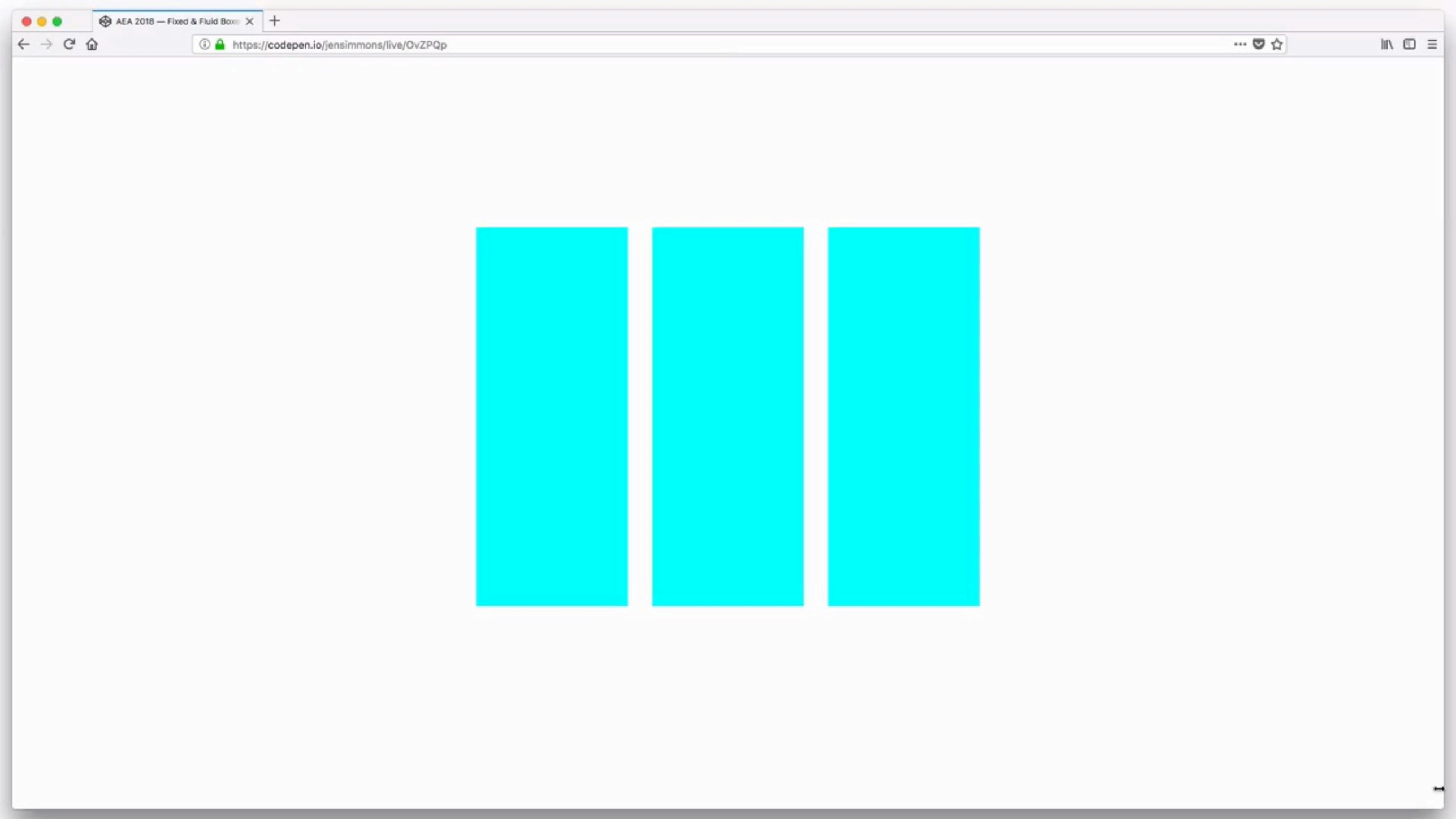
Nullam bibendum hendrerit augue, sed tempus odio sagittis nec. Ut ipsum lorem, scelerisque ac vestibulum et, tincidunt eget urna. Phasellus pellentesque nec urna id elementum. Maecenas a urna metus. Vivamus ac euismod ante. Vivamus ut risus porttitor, porttitor ligula a, maximus risus. Donec maximus vulputate mauris, vel placerat diam interdum eu. Nam tempus diam eget blandit efficitur. Etiam sed porta nisi. Donec sit amet sapien in est pellentesque sollicitudin. Donec nec erat efficitur, efficitur purus vel, vehicula odio. Fusce eget placerat massa, vel porta lacus. Proin consectetur finibus lacinia.

300px

Sidebar Headlinnne

Lorem ipsum dolor sit amet consectetur adipiscing, elit inceptos nunc et litora, cras class id morbi viverra. Leo in hac vel sed molestie fringilla fusce orci, dis nibh pharetra quisque inceptos interdum tortor, porta parturient varius magna curae feugiat vestibulum egestas, suscipit facilisi accumsan torquent aptent lobortis. Non dictum feugiat himenaeos consequat per odio ante porta eget senectus, ac accumsan ligula laoreet vivamus sociis mollis habitasse magna, felis massa dis id malesuada donec ut pulvinar iaculis.

2. Four Stages of Squish


AEA 2018 — Fixed & Fluid Boxe
https://codepen.io/jensimmons/live/OvZPQp

Fixed & Adaptive

Fluid & Responsive

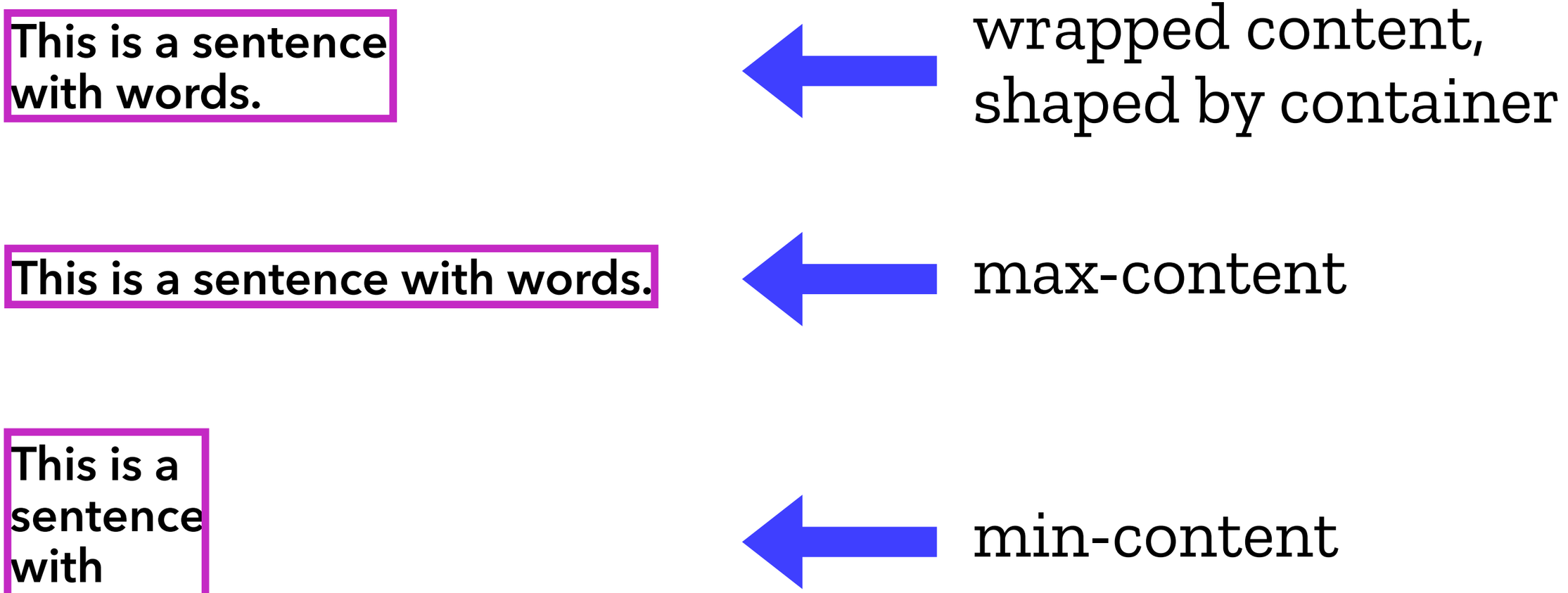
fixed

FR units

minmax()

auto

min-content sizing


This is a sentence with words.
wrapped content, shaped by container
This is a sentence with words.
max-content
This is a sentence with words.
min-content

AEA 2018 — Stages of Squish

https://codepen.io/jensimmons/live/dmeMpO

1fr	1fr	1fr	1fr
One	Two	Three	Four
Nullam pellentesquenec bibendum hendrerit augue, sed tempus odio sagittis nec. Ut ipsum lorem, scelerisque ac vestibulum et, tincidunt eget urna. Phasellus urna id elementum. Maecenas a urna metus. Vivamus ac euismod ante. Vivamus ut risus porttitor, porttitor ligula a, maximus risus. Donec maximus vulputate	Nullam pellentesquenec bibendum hendrerit augue, sed tempus odio sagittis nec. Ut ipsum lorem, scelerisque ac vestibulum et, tincidunt eget urna. Phasellus urna id elementum. Maecenas a urna metus. Vivamus ac euismod ante. Vivamus ut risus porttitor, porttitor ligula a, maximus risus. Donec maximus vulputate	Nullam pellentesquenec bibendum hendrerit augue, sed tempus odio sagittis nec. Ut ipsum lorem, scelerisque ac vestibulum et, tincidunt eget urna. Phasellus urna id elementum. Maecenas a urna metus. Vivamus ac euismod ante. Vivamus ut risus porttitor, porttitor ligula a, maximus risus. Donec maximus vulputate	Nullam pellentesquenec bibendum hendrerit augue, sed tempus odio sagittis nec. Ut ipsum lorem, scelerisque ac vestibulum et, tincidunt eget urna. Phasellus urna id elementum. Maecenas a urna metus. Vivamus ac euismod ante. Vivamus ut risus porttitor, porttitor ligula a, maximus risus. Donec maximus vulputate

1fr

One

Nullam pellentesquenec bibendum hendrerit augue, sed tempus odio sagittis nec. Ut ipsum lorem, scelerisque ac vestibulum et, tincidunt eget urna. Phasellus urna id elementum. Maecenas a urna metus. Vivamus

2fr

Two

Nullam pellentesquenec bibendum hendrerit augue, sed tempus odio sagittis nec. Ut ipsum lorem, scelerisque ac vestibulum et, tincidunt eget urna. Phasellus urna id elementum. Maecenas a urna metus. Vivamus ac euismod ante. Vivamus ut risus porttitor, porttitor ligula a, maximus risus. Donec maximus vulputate mauris, vel placerat diam interdum.

4fr

Three

Nullam pellentesquenec bibendum hendrerit augue, sed tempus odio sagittis nec. Ut ipsum lorem, scelerisque ac vestibulum et, tincidunt eget urna. Phasellus urna id elementum. Maecenas a urna metus. Vivamus ac euismod ante. Vivamus ut risus porttitor, porttitor ligula a, maximus risus. Donec maximus vulputate mauris, vel placerat diam interdum.

6fr

Four

Nullam pellentesquenec bibendum hendrerit augue, sed tempus odio sagittis nec. Ut ipsum lorem, scelerisque ac vestibulum et, tincidunt eget urna. Phasellus urna id elementum. Maecenas a urna metus. Vivamus ac euismod ante. Vivamus ut risus porttitor, porttitor ligula a, maximus risus. Donec maximus vulputate mauris, vel placerat diam interdum.

1fr

One

Nullam pellentesquenec bibendum hendrerit augue, sed tempus odio sagittis nec. Ut ipsum lorem, scelerisque ac vestibulum et, tincidunt eget urna. Phasellus urna id elementum. Maecenas a urna metus. Vivamus ac euismod ante. Vivamus ut risus porttitor, porttitor ligula a, maximus risus. Donec maximus vulputate mauris, vel placerat diam interdum.

1fr

Two

Nullam pellentesquenec bibendum hendrerit augue, sed tempus odio sagittis nec. Ut ipsum lorem, scelerisque ac vestibulum et, tincidunt eget urna. Phasellus urna id elementum. Maecenas a urna metus. Vivamus ac euismod ante. Vivamus ut risus porttitor, porttitor ligula a, maximus risus. Donec maximus vulputate mauris, vel placerat diam interdum.

minmax(250px, 600px)

Three

Nullam pellentesquenec bibendum hendrerit augue, sed tempus odio sagittis nec. Ut ipsum lorem, scelerisque ac vestibulum et, tincidunt eget urna. Phasellus urna id elementum. Maecenas a urna metus. Vivamus ac euismod ante. Vivamus ut risus porttitor, porttitor ligula a, maximus risus. Donec maximus vulputate mauris, vel placerat diam interdum.

1fr

Four

Nullam pellentesquenec bibendum hendrerit augue, sed tempus odio sagittis nec. Ut ipsum lorem, scelerisque ac vestibulum et, tincidunt eget urna. Phasellus urna id elementum. Maecenas a urna metus. Vivamus ac euismod ante. Vivamus ut risus porttitor, porttitor ligula a, maximus risus. Donec maximus vulputate mauris, vel placerat diam interdum.

200px

One

Nullam pellentesquenec bibendum hendrerit augue, sed tempus odio sagittis nec. Ut ipsum lorem, scelerisque ac vestibulum et, tincidunt eget urna. Phasellus urna id elementum. Maecenas a urna metus. Vivamus ac euismod ante. Vivamus ut risus porttitor, porttitor ligula a, maximus risus. Donec maximus vulputate mauris, vel placerat diam interdum.

1fr

Two

Nullam pellentesquenec bibendum hendrerit augue, sed tempus odio sagittis nec. Ut ipsum lorem, scelerisque ac vestibulum et, tincidunt eget urna. Phasellus urna id elementum. Maecenas a urna metus. Vivamus ac euismod ante. Vivamus ut risus porttitor, porttitor ligula a, maximus risus. Donec maximus vulputate mauris, vel placerat diam interdum.

minmax(300px, 600px)

Three

Nullam pellentesquenec bibendum hendrerit augue, sed tempus odio sagittis nec. Ut ipsum lorem, scelerisque ac vestibulum et, tincidunt eget urna. Phasellus urna id elementum. Maecenas a urna metus. Vivamus ac euismod ante. Vivamus ut risus porttitor, porttitor ligula a, maximus risus. Donec maximus vulputate mauris, vel placerat diam interdum.

1fr

Four

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AEA 2018 — Stages of Squish
https://codepen.io/jensimmons/live/dmeMpO

200px

One

Nullam pellentesquenec bibendum hendrerit augue, sed tempus odio sagittis nec. Ut ipsum lorem, scelerisque ac vestibulum et, tincidunt eget urna. Phasellus urna id elementum. Maecenas a urna metus. Vivamus ac euismod ante. Vivamus ut risus porttitor, porttitor ligula a, maximus risus. Donec maximus vulputate mauris, vel placerat diam interdum.

auto

Two

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minmax(300px, 600px)

Three

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1fr

Four

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fixed

FR units

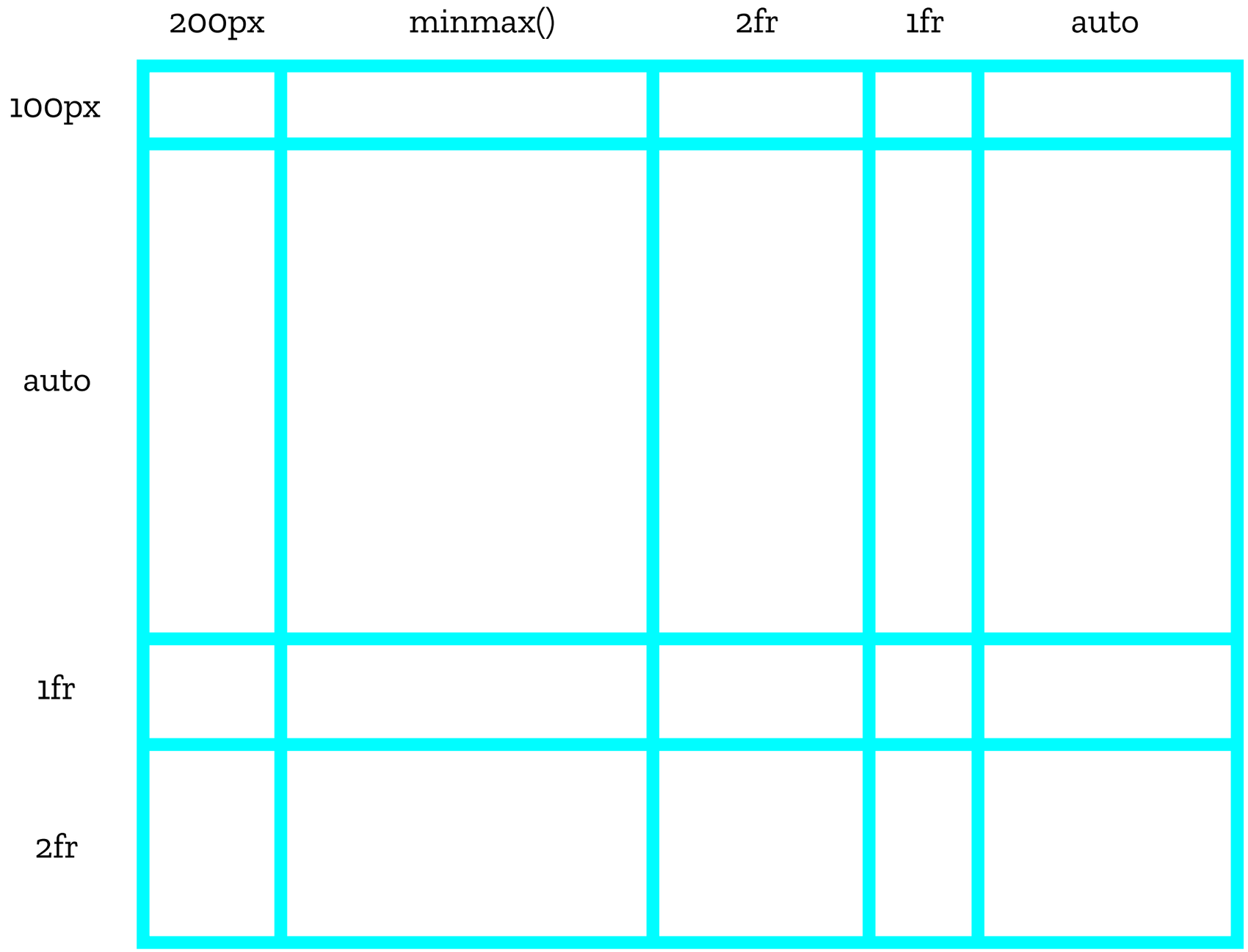
minmax()

auto

2. Four Stages of Squish

3. Truly 2-D Layout

Rows and columns


200px
minmax()
2fr
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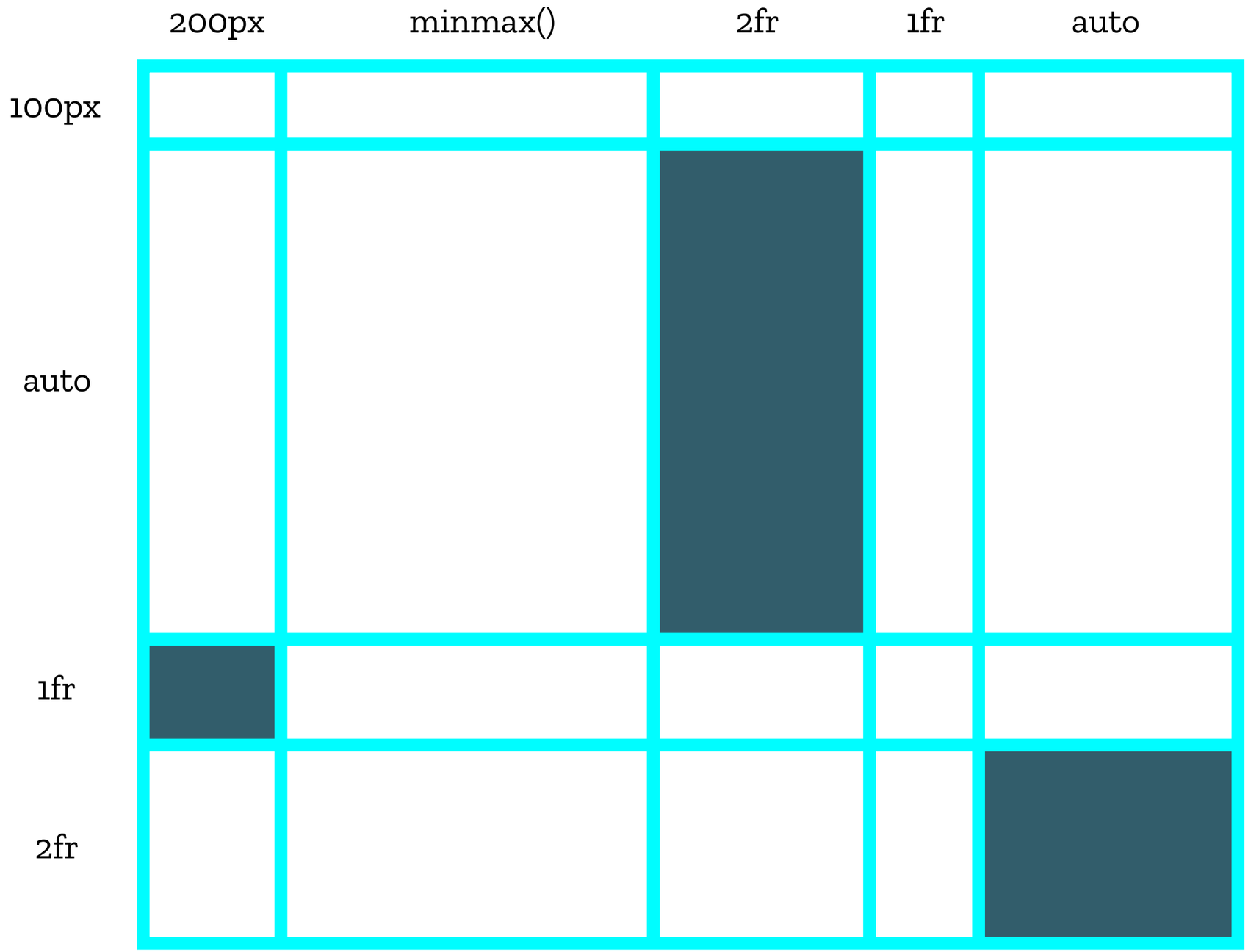
White space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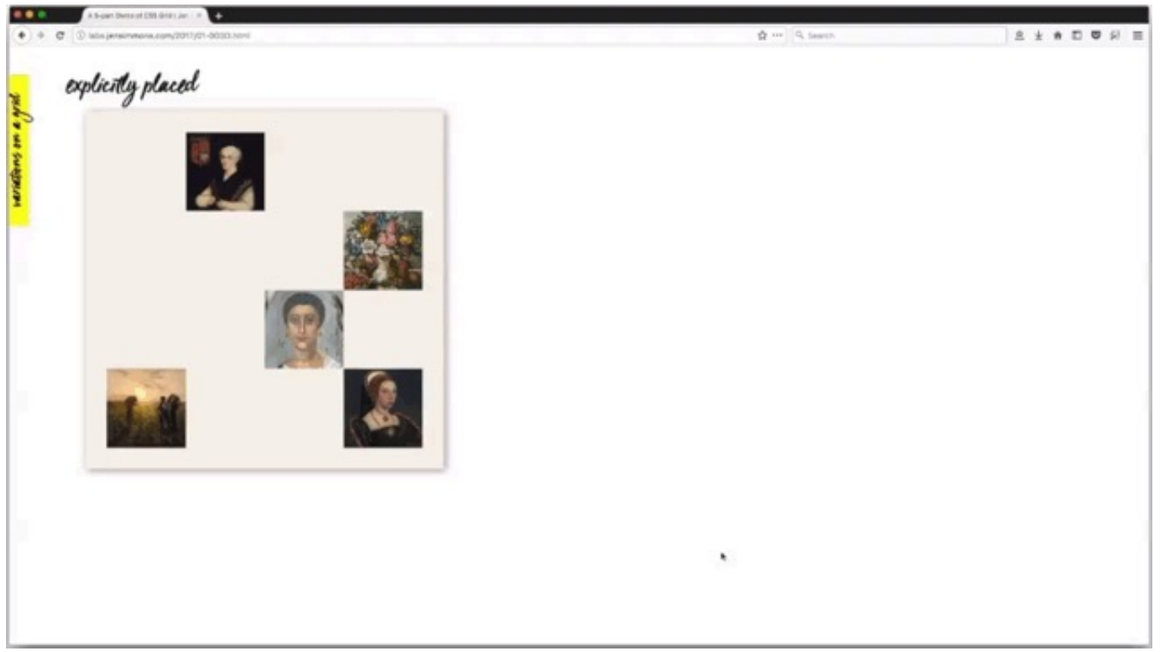

youtube.com/layoutland

Can set heights and widths

Setting heights...

3. Truly 2-D Layout

4. Nested Contexts

Flow

Flexbox formatting context

Grid formatting context

Multicolumn formatting context

Flow block formatting context

Flexbox formatting context

Grid formatting context

Multicolumn formatting context

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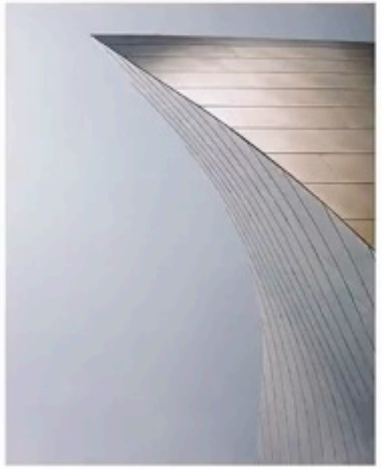
VIVAMUS FELIS

Fusce eget

Placerat massa, vel porta lacus.

VIVAMUS FELIS



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VIVAMUS FELIS

Maecenas a urna metus

Vivamus ac euismod ante.

VIVAMUS FELIS

Vivamus ut risus porttitor

Porttitor ligula a, maximus risus. Donec maximus vulputate mauris, vel placerat diam interdum eu. Nam tempus diam eget blandit efficitur. Etiam sed porta nisi. Donec sit amet sapien in est pellentesque sollicitudin. Donec nec erat efficitur, efficitur purus vel, vehicula odio.

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Placerat massa, vel porta lacus. Proin consectetur finibus lacinia.

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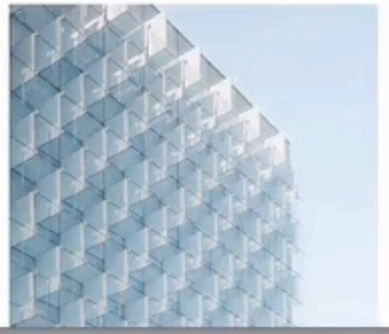
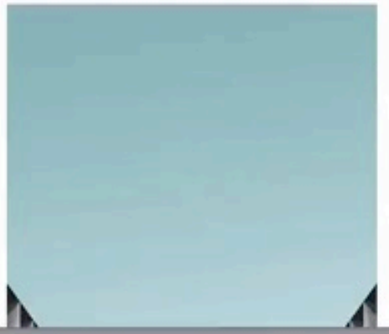




nightly.mozilla.org

4. Nested Contexts

5. Ways to Contract and Expand

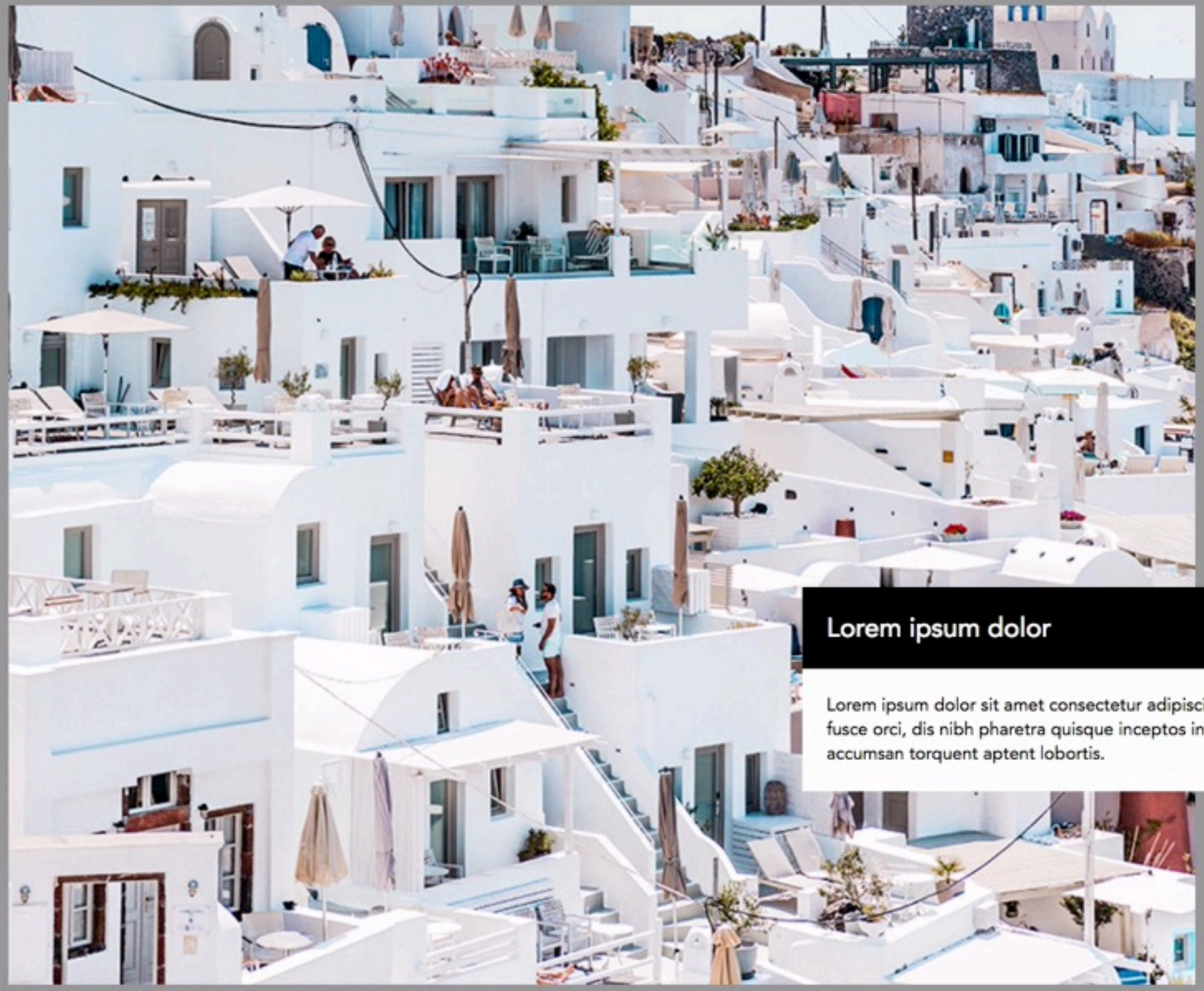
Shrink / Grow (aka, Squish)

Wrap, reflow

Add / remove whitespace

Slide one thing behind another. Overlap.

AEA 2018 — Teaser Card Live P
https://codepen.io/jensimmons/live/gezmMa



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1fr

5. Ways to Contract and Expand

6. Media Queries, as needed

AEA 2018 — Teaser Card neste

https://codepen.io/jensimmons/live/Ldmymx

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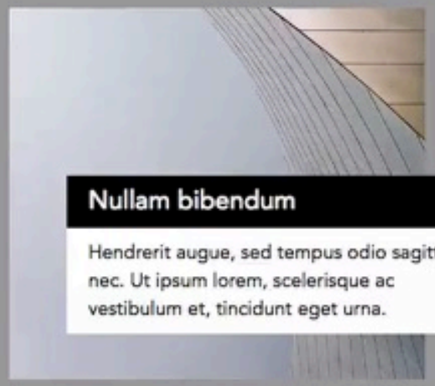

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Vivamus ut risus porttitor

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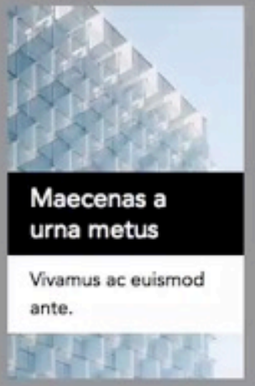

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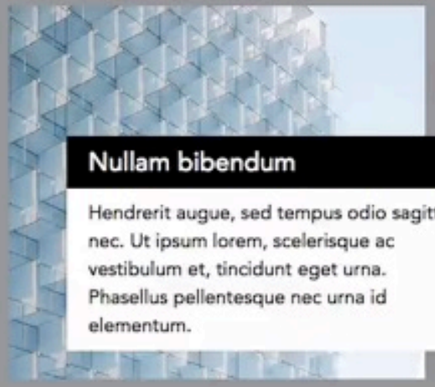

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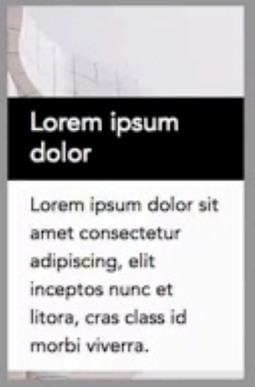

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```
<body translate="no">
  <main>
    <article>
      <h1>Lorem ipsum dolor</h1>
      <img src="https://s3-us-west-2.amazonaws.com/s.
      /10558/teaser-cad-demo-image.jpg" alt="a little
      <p></p>
    </article>
    <article></article>
    <article></article>
    <article></article>
    <article></article>
    <article></article>
```

fiv › iframe#result.result-iframe › html › body › main › article › p

Rules | Layout | Computed | Animations | Fonts

Flexbox

Select a Flex container or item to continue.

Grid

Overlay Grid

- main
- article
- article
- article
- article
- article
- article
- article
- article
- article
- article

Grid Display Settings

- Display line numbers
- Display area names
- Extend lines infinitely

Box Model

Intrinsic Web Design

1. Fluid & fixed
2. Stages of Squishiness
3. Rows & Columns
4. Nested Contexts
5. Ways Expand & Contract
6. Media Queries, as needed

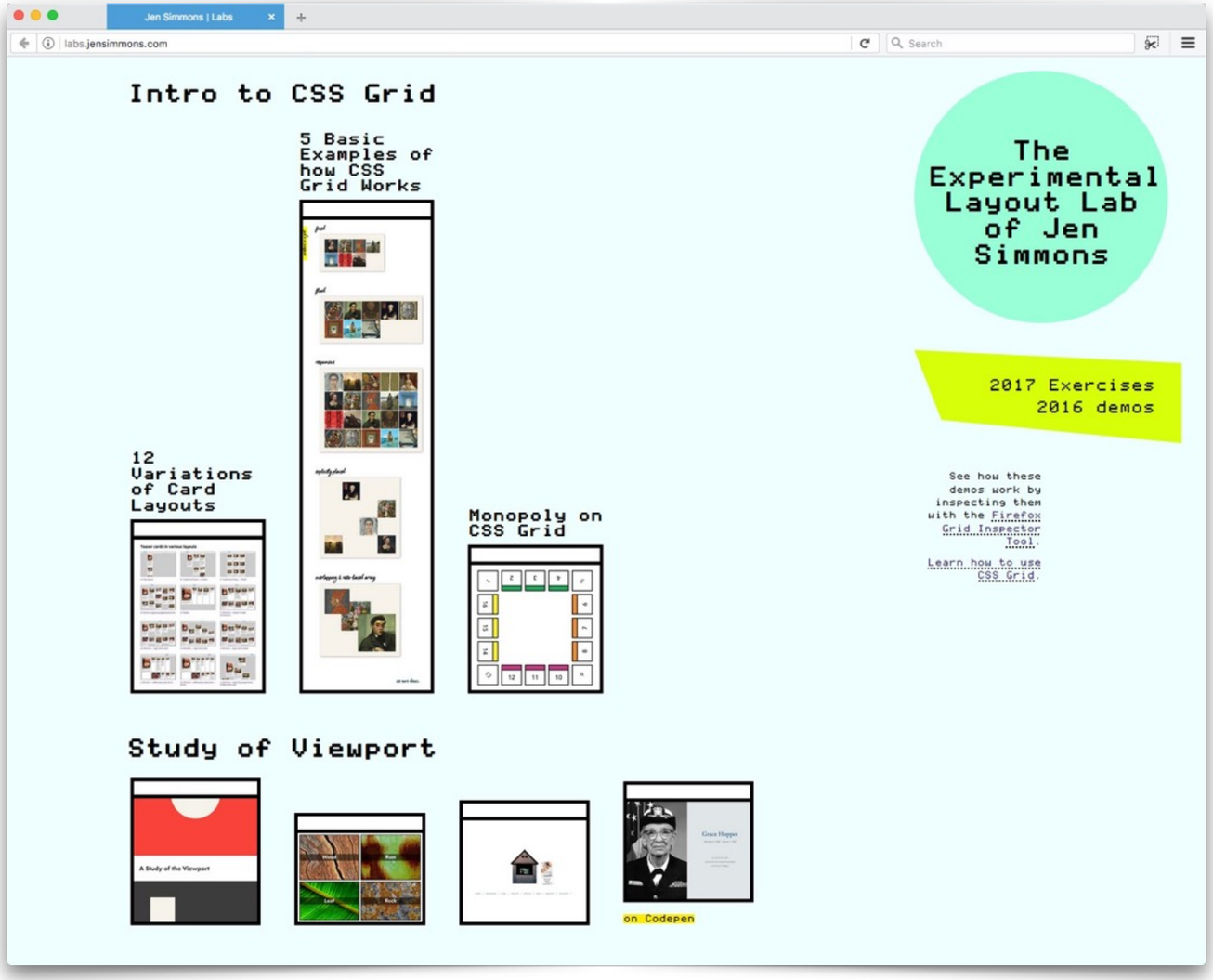
It's the web!

We need art!

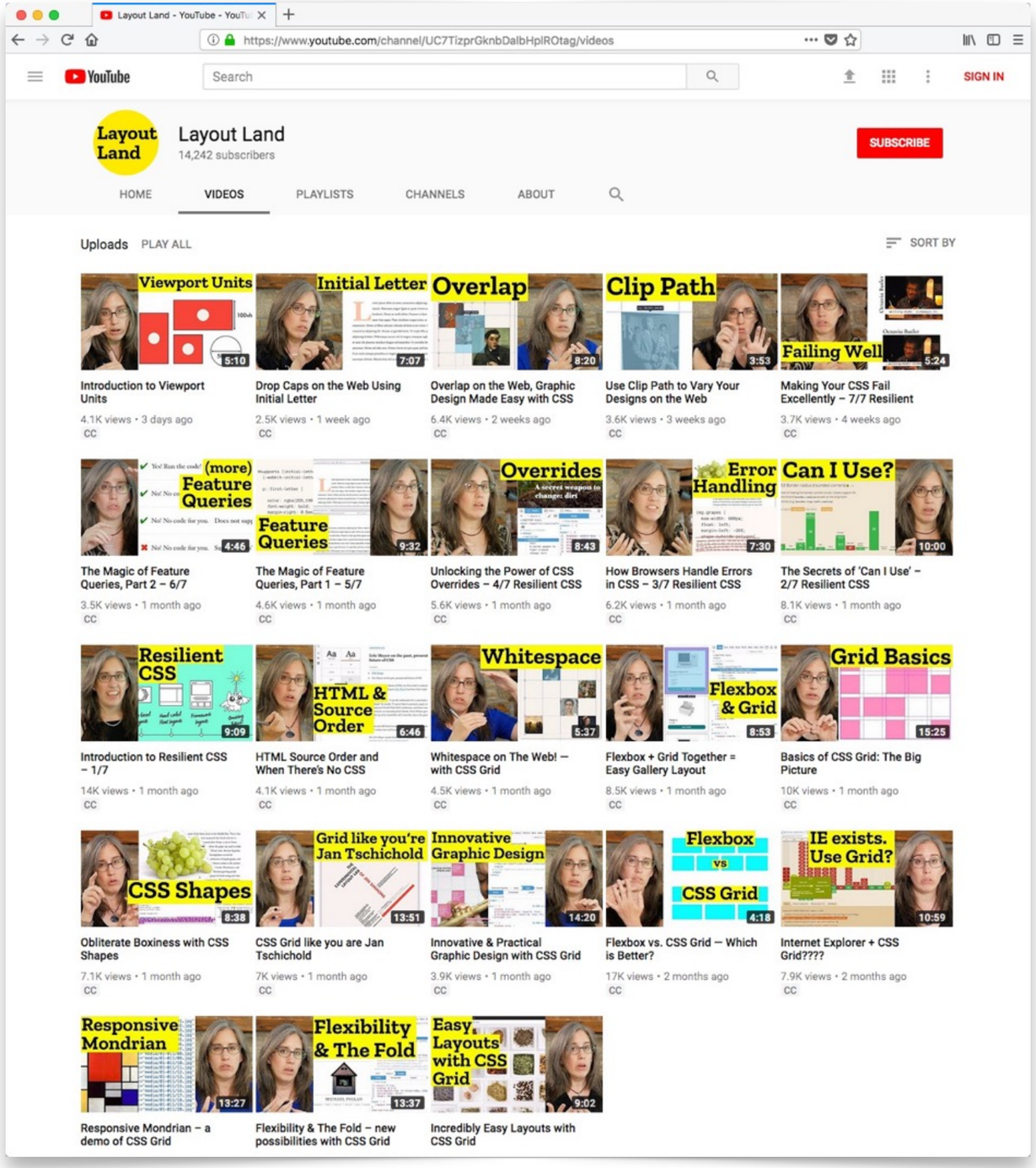
CSS Grid
Flexbox
Alignment
Writing Modes
Multicolumn
Viewport Units
Transforms
Object Fit
Clip-path
Masking
Shape-outside
Initial-letter

Flow
Floats
Block
Inline
Inline-block
Display: table
Margin
Negative margins
Padding

everything else
in CSS



labs.jensimmons.com



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Thanks!

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