CSS3 : Now & in the Future

snake hill
practical technology solutions

CSS3 is Modular

Can we use it now?

* Use it for non-critical things on the experience layer.

* Check sites that maintain tables showing browser support like http://www.findmebyip.com/litmus and http://www.caniuse.com.

*You can use old Microsoft filters to force IE to display some effects - but use them sparingly.

```
filter:progid:DXImageTransform.Microsoft.Alpha(opacity=50);
```
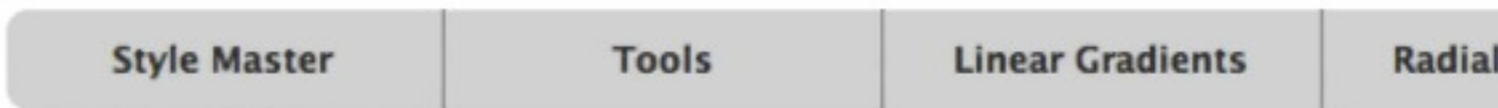
Progressive Enhancement

Vendor Prefixes

Chrome, Safari: -webkit-
Firefox: -moz-
Opera: -o-

```
h1 {
    -webkit-border-radius: 10px;
    -moz-boder-radius: 10px;
    -o-border-radius: 10px;
    border-radius: 10px;
}
```

Vendor Prefixes
A Easy Solution

-prefix-free

A javascript file that adds vendor prefixes at runtime - but only when needed. It targets specific browsers - IE9+, Opera10+, Safari4+, Firefox3.5+ and Chrome.

Vendor Prefixes
A Easy Solution

-prefix-free module for Drupal 7

* install the module
* download the latest -prefix-free library
* add it to your module or library directory

Attribute Selectors

select an element if the named attribute *starts* with a specific string

```
selector[attribute^="value"]
```

———————————————————————————

select an element if the named attribute *ends* with a specific string

```
selector[attribute$="value"]
```

Attribute Selectors

```
a[href^="http"]: {
    background: url(selector[attribute^="value"]'arrow.png') right
no-repeat;
    padding-right: 1.2em;
}
```


CHERYL at Who's Who →

```
a[href$=".pdf"]: {
    background: url(selector[attribute^="value"]'pdf.png') right
no-repeat;
    padding-right: 1.2em;
}
```

See the Speak Out Flyer.

UI Selectors

select an element based on disabled/enabled

`input:enabled, button:disabled`

---

select an element based on checked inputs

`input[type="radio"]:checked`

UI Selectors

```
input[type="text"]:enabled {
    background:#c8e2f7;
}
input[type="text"]:disabled {
    background:#e2e4e5;
}
```

First name: Cheryl
Last name: Amato
Country: USA

Target Selector

selects the element when it is the current target

```
<a href="#a">A</a>    <div id="a"></div>


#a:target {
  display: block;
  border: 1px solid #ff0000;
  padding: 1em;
}
```

Target Selector

used by Wikipedia on their footnotes

Episodes of *Lost* include a number of mysterious elements ascribed to science fiction or supernatural phenomena. The creators of the series refer to these elements as composing the mythology of the series, and they formed the basis of fan speculation. [5] The show's

in-page link

4. ^ "58th Primetime Emmy Award Nominees and Winners –". Emmys.tv. Retrieved 2010-07-24.
5. ^ Benson, Jim. "The *Lost* Generation: Networks Go Eerie." *Broadcasting & Cable*, May 16, 2005.
6. ^ "IGN's Top 50 *Lost* Loose Ends: Page 1". IGN.com. November 13, 2006.
7. ^ Fienberg, Daniel (March 14, 2005). "*Lost* Team Discusses Upcoming Death and Mysteries". Zap2It.com.

```
ol.references li:target {
    background-color: #DDEEFF;
}
```

Structural Selectors

These include first-child, last-child, nth-child, first-of-type, last-of-type, nth-of-type


```
.header-top ul.menu li:nth-of-type(2) {
    background: #000 url(../images/news-icon.png) center left no-
repeat;
}
```

Structural Selectors
Using Negation

```
li:not(.skip):nth-of-type(odd);
li:nth-of-type(odd):not(.skip);



<ul>
    <li>Item 1</li>
    <li>Item 2</li>
    <li class="skip">Item 3</li>
    <li>Item 4</li>
    <li>Item 5</li>
    <li>Item 6</li>
</ul>
```

Text Shadow

```
element {
    text-shadow: 2px 2px 4px #777;
    filter: dropshadow(color=#777, offx=2, offy=2);
}
```

By playing with the text color, the background color, the shadow color & the offset you can simulate embossed, engraved and glowing text.

Opacity vs RGBA

Opacity uses the opacity property.

```
div {
  background-color: rgb(255,0,0); opacity: 1;
}
```

RGBA lets you set opacity as part of the color.
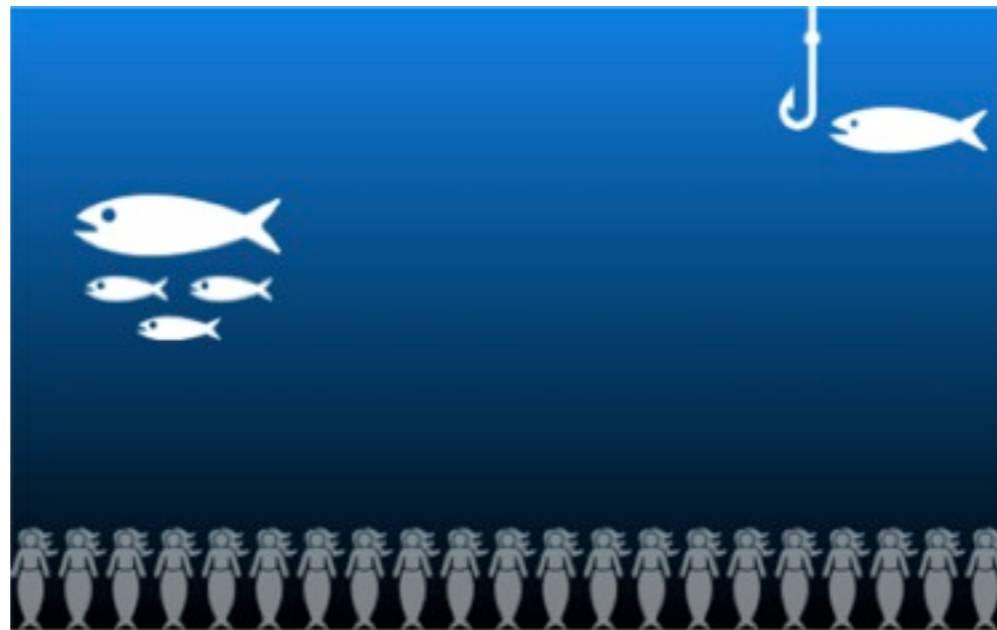
```
div {
  background-color: rgba(255,0,0,1);
}
```

Opacity vs RGBA
The Difference Between the 2

Opacity sets the opacity value for an element *and all of its children*.

RGBA sets the opacity value only for a single declaration.

This is a Test

Multiple Backgrounds


```
background: url("media/fishing.svg") top right 10px no-repeat,
            url("media/mermaid.svg") bottom left repeat-x,
            url("media/fish.svg") 30px 90px no-repeat,
            url("media/sea.png") repeat-x;
```

Gradients

Gradients can be linear (either horizontal or vertical), diagonal or radial. Radial gradients are still experimental.

Tools:
http://westciv.com/tools/

Gradients

http://meyerweb.com/eric/css/tests/circadients.html
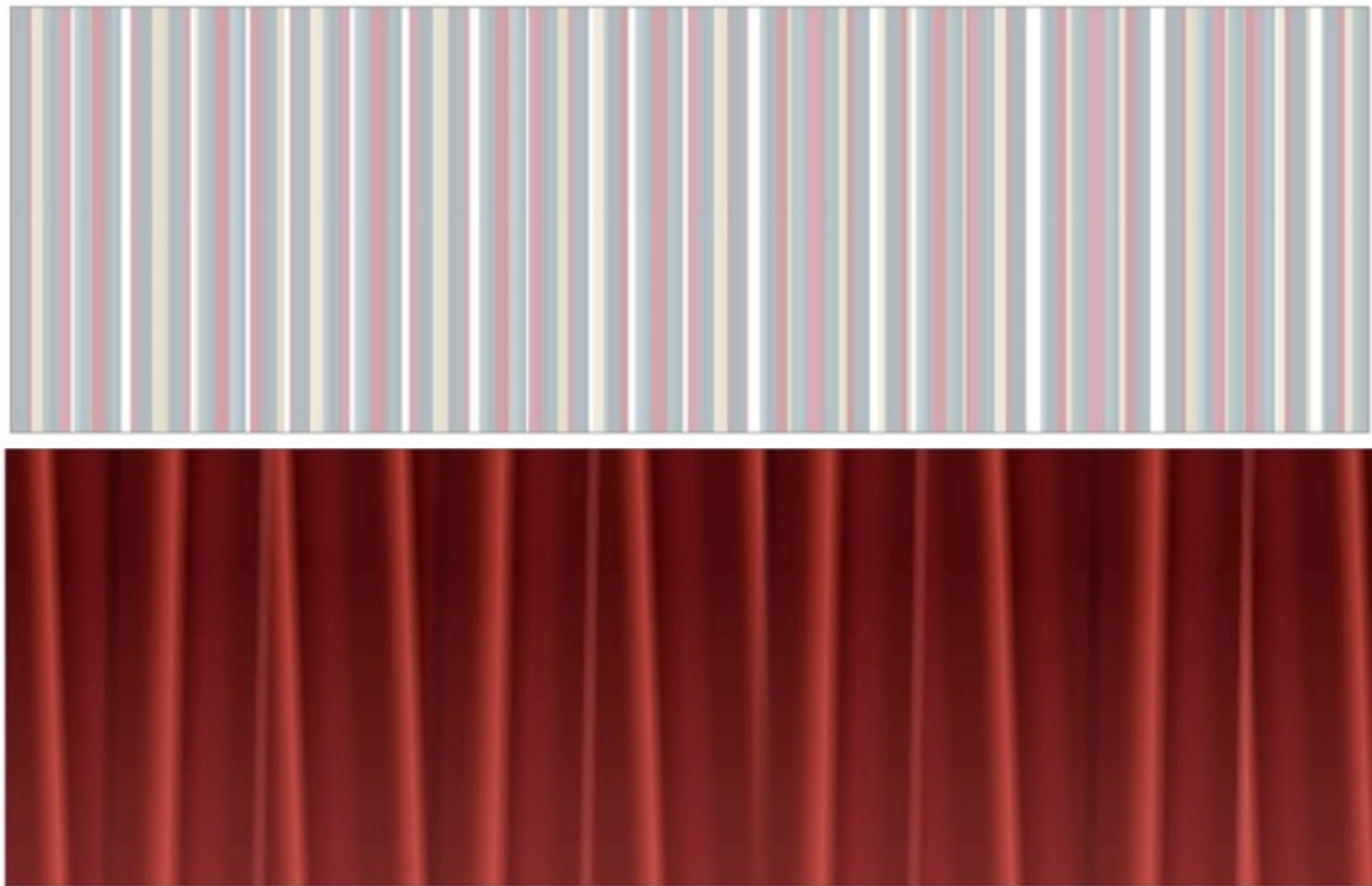
Border Radius

Used to create rounded corners.

This is a Test

If you use 2 values for each corner you can create elliptical shapes.

This is a Test

Box Shadow

```
element {
    box-shadow: 5px 6px 5px 0px rgba(0, 0, 0, .8);
}
```

@font-face

* Dependent on the font's license

* Requires the font be in 4 different formats so it can be used in all browsers

*Very good browser support!

* Make sure you include foutbgone.js (flash of un-styled text)

Multicolumn Text

Lets you specify the number of columns to use for block of text & how to fill those blocks.

Multicolumn Text

* column-count - number of columns

* column-fill - how to fill the columns - auto (fills sequentially) or balance

* column-gap - the space between the columns

* column-rule-color - color of line between columns

* column-rule-style - style of line between columns

* column-rule-width - width of line

* column-rule - combines all the rule attributes in shorthand - i.e. like border

* column-width - width of column

* column-height - height of columns

* column-span - how many columns an element should span - value are all or none

* column-break - you can force when certain content starts a new column

Multicolumn Text

javascript workarounds for IE

Column Script from Michael van Ouwerkerk - http://13thparallel.com/archive/column-script/

The Script from CSS Scripting - http://www.csscripting.com/wiki/index.php?title=The_Script

Multi Column Layout Demonstration from CSS Scripting - http://www.csscripting.com/css-multi-column/
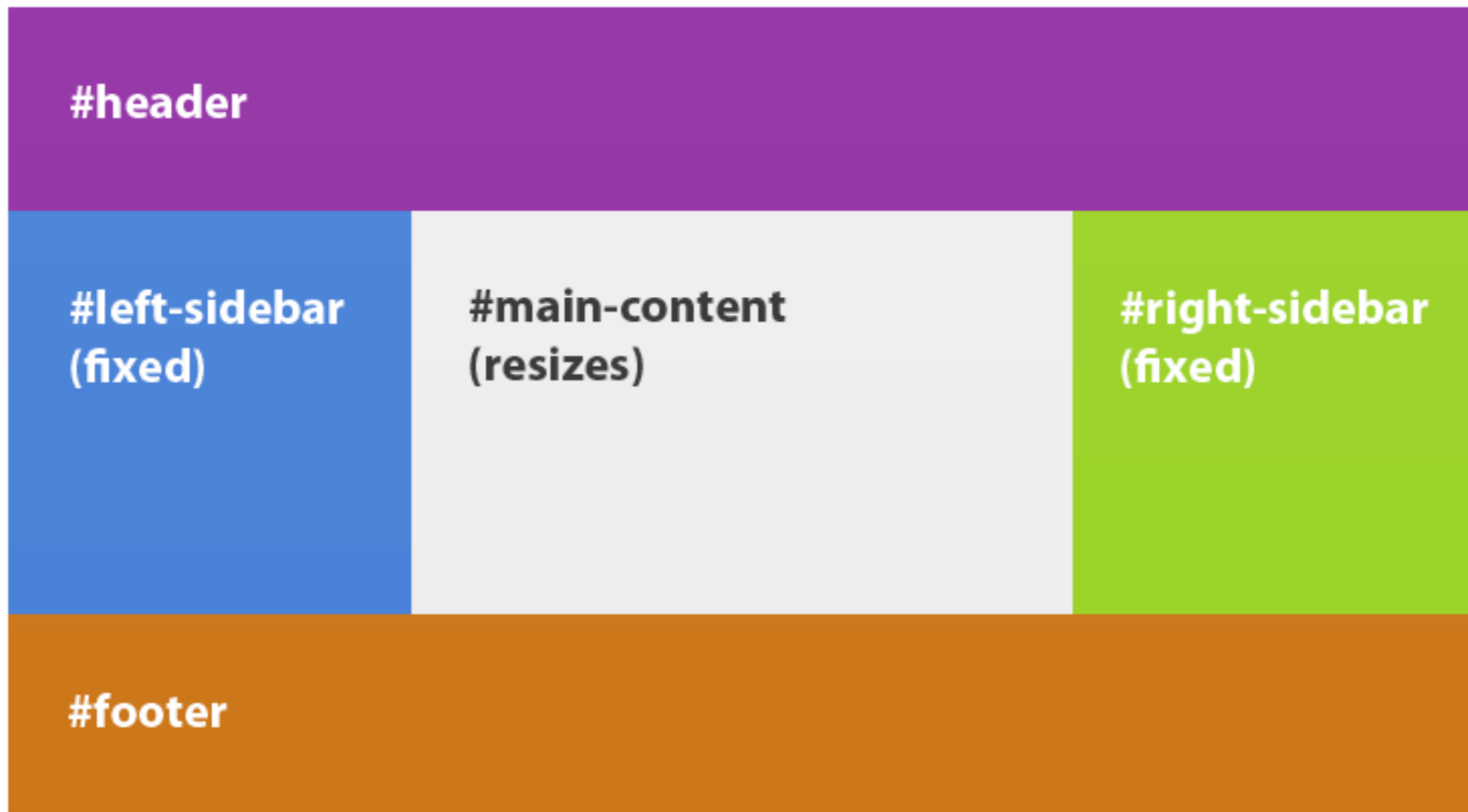
Flexible Box Layout
aka Flex Box

From the W3C:

Start with a containing box. Then the children of a box are laid out either horizontally or vertically, and unused space can be assigned to a particular child or distributed among the children by assignment of *flex* to the children that should expand. Nesting of these boxes (horizontal inside vertical, or vertical inside horizontal) can be used to build layouts in two dimensions.

Flexible Box Layout

aka Flex Box

#header

#left-sidebar
(fixed)

#main-content
(resizes)

#right-sidebar
(fixed)

#footer

Flexible Box Layout

aka Flex Box

```html
<div id="header"></div>
<div id="content"></div>
<div id="footer"></div>


#header { background: purple; width: 100%; height: 200px; }

#content { display: -webkit-flex; -webkit-flex-flow: row; width: 100%; }

#content #left-sidebar { width: 200px; height: 300px; background:
blue; }

#content #right-sidebar { width: 200px; height: 300px; background:
green; }

#content #main-content { -webkit-flex: 1; background: #eee; }

#footer { width: 100%; height: 200px; background: orange; }
```

Transitions & Transformations

These are the least supported.

You can transition the background, the color, height, weight and outline of an element.

You can transform an element by scaling, rotating, translating and skewing it.

Filter Effects

blur
grayscale
drop-shadow
create a sepia tone
adjust the brightness
adjust the contrast
rotate the hue
invert the colors
adjust the satruation
adjust the opacity

http://html5-demos.appspot.com/static/css/filters/index.html

Blending Modes

Blending describes how colors are "blended" together.

Typically, the color of an element and the color of its **backdrop** are combined to create a new color.

http://adobe.github.com/web-platform/demos/compositing/

Modernizr

A javascript library that adds classes to the <html> tag. The classes are dependent on the browser being used.

Opera 10.6

<html class="rgba hsla multiplebgs backgroundsize borderimage borderradius boxshadow opacity **no-cssanimations no-csscolumns no-cssgradients no-cssreflections** csstransforms **no-csstransforms3d** csstransitions fontface">

Universal Internet Explorer 6 CSS

From Andy Clarke:

"...not to waste hours in time and a client's money on lengthy workarounds in an unnecessary attempt at cross-browser perfection. Instead, you and I should provide simple but effectively designed HTML elements. This means just great typography for headings, paragraphs, quotations, lists, tables and forms and no styling of layout."

Universal Internet Explorer 6 CSS

Debugging Tools

* Firebug

* Web Developers Toolbar

* HTML Reset

* CSS3 Generator

* Comment your code!

* Make sure Optimize CSS Files is disabled

* Test in multiple browsers