

Effective & Efficient Design with CSS3

September 23, 2010

Web Directions USA

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@zomigi

What I do

Books

now **Flexible Web Design:**
Creating Liquid and Elastic
Layouts with CSS
www.flexiblewebbook.com

soon **Stunning CSS3:**
A Project-based Guide to
the Latest in CSS
www.stunningcss3.com

Web

Freelance graphic
designer and web
developer

CSS consultant

Member of Adobe
Task Force for WaSP

What is CSS3?

See modules at
www.w3.org/Style/CSS/current-work

| Abbreviation | Full name |
|--------------|---------------------------------|
| WD | <u>Working Draft</u> |
| LC | <u>Last Call</u> |
| CR | <u>Candidate Recommendation</u> |
| PR | <u>Proposed Recommendation</u> |
| REC | <u>Recommendation</u> |

| High Priority | Current | Upcoming |
|--|---------------------------------|---------------------------------|
| <u>CSS Level 2 Revision 1</u> | <u>Candidate Recommendation</u> | <u>Proposed Recommendation</u> |
| <u>Selectors</u> | <u>Proposed Recommendation</u> | <u>Recommendation</u> |
| <u>CSS Mobile Profile 2.0</u> | <u>Candidate Recommendation</u> | <u>Proposed Recommendation</u> |
| <u>CSS Marquee</u> | <u>Candidate Recommendation</u> | <u>Proposed Recommendation</u> |
| Medium Priority | Current | Upcoming |
| <u>CSS Snapshot 2007</u> | <u>Last Call</u> | <u>Candidate Recommendation</u> |
| <u>CSS Namespaces</u> | <u>Candidate Recommendation</u> | <u>Proposed Recommendation</u> |
| <u>CSS Paged Media</u> | <u>Last Call</u> | <u>Last Call</u> |
| <u>CSS Print Profile</u> | <u>Last Call</u> | <u>Candidate Recommendation</u> |
| <u>CSS Values and Units</u> | <u>Working Draft</u> | <u>Working Draft</u> |
| <u>CSS Cascading and Inheritance</u> | <u>Working Draft</u> | <u>Working Draft</u> |
| <u>CSS Text</u> | <u>Working Draft</u> | <u>Working Draft</u> |
| <u>CSS Text Layout</u> | | <u>Working Draft</u> |
| <u>CSS Line Grid</u> | | <u>Working Draft</u> |
| <u>CSS Ruby</u> | <u>Candidate Recommendation</u> | <u>Working Draft</u> |
| <u>CSS Generated Content for Paged Media</u> | <u>Working Draft</u> | <u>Working Draft</u> |
| <u>CSS Backgrounds and Borders Level 3</u> | <u>Last Call</u> | <u>Candidate Recommendation</u> |
| <u>CSS Fonts</u> | <u>Working Draft</u> | <u>Last Call</u> |
| <u>CSS Basic Box Model</u> | <u>Working Draft</u> | <u>Working Draft</u> |
| <u>CSS Multi-column Layout</u> | <u>Candidate Recommendation</u> | <u>Proposed Recommendation</u> |
| <u>CSS Template Layout</u> | <u>Working Draft</u> | <u>Working Draft</u> |
| <u>Media Queries</u> | <u>Candidate Recommendation</u> | <u>Proposed Recommendation</u> |
| <u>CSS Speech</u> | <u>Working Draft</u> | <u>Working Draft</u> |
| <u>CSS Color</u> | <u>Last Call</u> | <u>Proposed Recommendation</u> |
| <u>CSS Basic User Interface</u> | <u>Candidate Recommendation</u> | <u>Test Suite</u> |
| <u>CSS Scoping</u> | | <u>Working Draft</u> |
| <u>CSS Grid Positioning</u> | <u>Working Draft</u> | <u>Working Draft</u> |
| <u>CSS Flexible Box Layout</u> | <u>Working Draft</u> | <u>Working Draft</u> |
| <u>CSS Image Values</u> | <u>Working Draft</u> | <u>Working Draft</u> |
| <u>CSS 2D Transformations</u> | <u>Working Draft</u> | <u>Working Draft</u> |
| <u>CSS 3D Transformations</u> | <u>Working Draft</u> | <u>Working Draft</u> |
| <u>CSS Transitions</u> | <u>Working Draft</u> | <u>Working Draft</u> |
| <u>CSS Animations</u> | <u>Working Draft</u> | <u>Working Draft</u> |
| Low Priority | Current | Upcoming |
| <u>CSSOM View</u> | <u>Working Draft</u> | <u>Working Draft</u> |
| <u>CSS Extended Box Model</u> | | <u>Working Draft</u> |
| <u>CSS Object Model</u> | | <u>Working Draft</u> |
| <u>CSS Syntax</u> | <u>Working Draft</u> | <u>Working Draft</u> |
| <u>CSS Lists</u> | <u>Working Draft</u> | <u>Working Draft</u> |
| <u>CSS Tables</u> | | <u>Working Draft</u> |
| <u>CSS Reader Media Type</u> | <u>Working Draft</u> | - |
| <u>CSS Positioning</u> | | <u>Working Draft</u> |
| <u>CSS Generated and Replaced Content</u> | <u>Working Draft</u> | <u>Working Draft</u> |
| <u>CSS Line Layout</u> | <u>Working Draft</u> | <u>Working Draft</u> |
| <u>CSS Hyperlink Presentation</u> | <u>Working Draft</u> | <u>Working Draft</u> |

Current status

| High Priority | Current | Upcoming |
|--|---------------------------------|--------------------------------|
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| <u>CSS Line Grid</u> | | Working Draft |
| <u>CSS Ruby</u> | <u>Candidate Recommendation</u> | <u>Working Draft</u> |
| <u>CSS Generated Content for Paged Media</u> | <u>Working Draft</u> | Working Draft |

Use the parts of CSS3 that:

- ✓ have generally stable syntax.
- ✓ have good support.
- ✓ don't harm non-supporting browsers by their lack.

Progressive enhancement



Progressive enhancement...aims to deliver the best possible experience to the widest possible audience — whether your users are viewing your sites on an iPhone, a high-end desktop system, a Kindle, or hearing them on a screen-reader, their experience should be as fully featured and functional as possible.

Designing with Progressive Enhancement,
www.filamentgroup.com/dwpe

A close-up photograph of a brown pegboard in a workshop. Various tools are hanging from the board, including a pair of red-handled scissors, a pair of silver-handled scissors, a yellow-handled tool, a metal bowl, and a blue plastic container. A ruler is also visible on the right side. The background is slightly blurred, showing more tools and a wooden surface.

A few of the things
you can use...

Backgrounds and Borders Module

border-radius

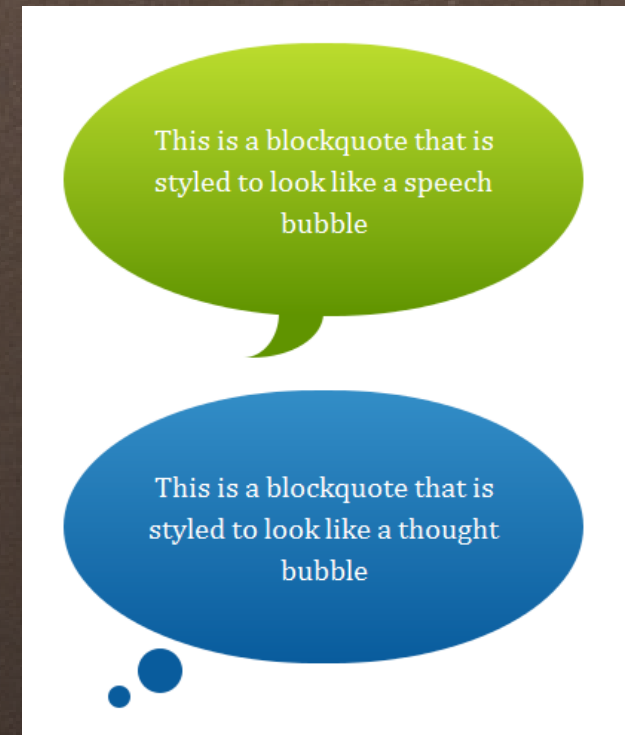
What Position Are You Seeking?

Do you have any concerns or specific challenges about your job search?

Message

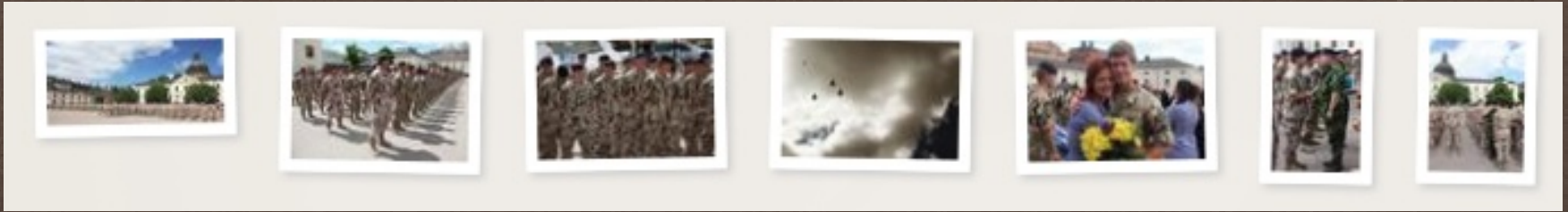
If you have a resume, please attach it. (Maximum filesize 2mb, you can upload more than one file if you like.)

BROWSE



Backgrounds and Borders Module

box-shadow



Hello (Real) World

MAY 17TH, 2010

**not because I was late, I'm just a really bad driver.*

It's 11pm. 12 hours ago I handed in my final VisCom coursework and drove like a madman* to catch a ferry to Stranraer, then a train to Glasgow, and now, finally, I'm on a train to London. However there's a good chance that FOWD will be worth it all.

Also, it's just occurred to me that since I am no longer really a student, I no longer have an excuse for not having a job...

Eep.

CSS3 Button

No Images!

I have
rainbow
borders!

text-shadow



Inset Typography

It does not matter how slow you go so long as you do not stop.

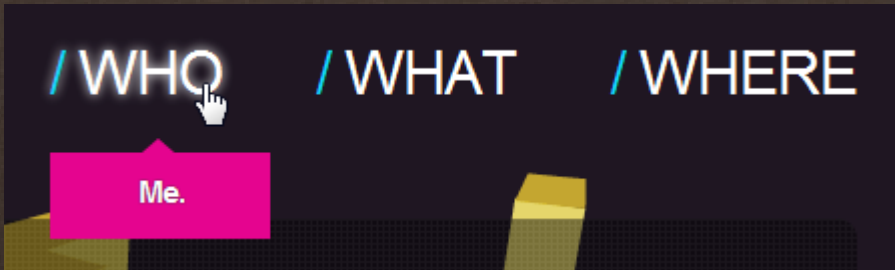
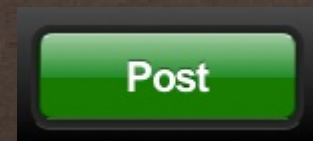
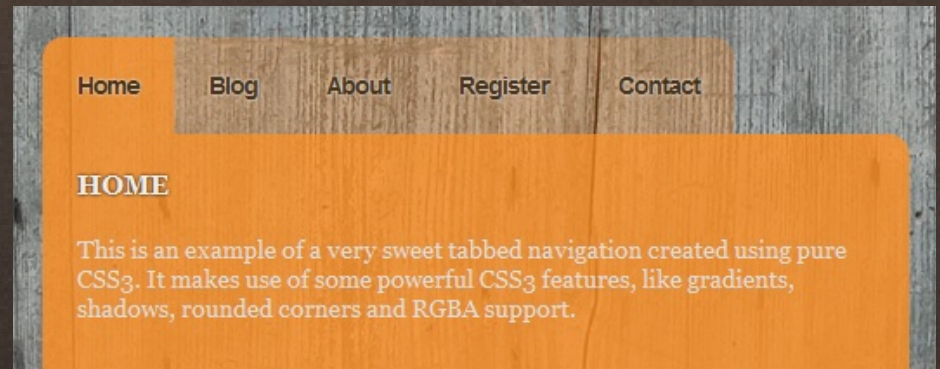


Image Values Module

Gradients



RGBA and HSLA



@font-face

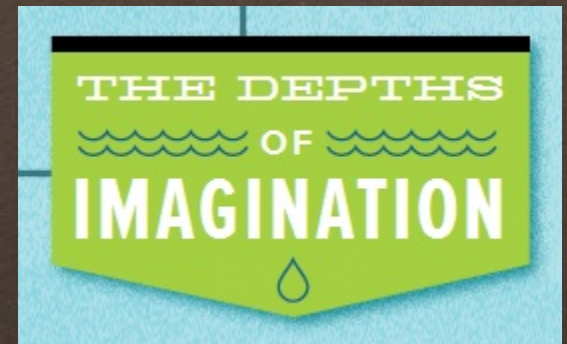
**You're not
cookie cutter.**

NEITHER ARE
WE.

We craft compelling, one-of-a-kind
resumes that get you noticed.

Our unique resume writing approach has helped thousands of
people take their careers to a new level.

[Find out how we do it.](#) →



**“ DON'T TRY TO BE
ORIGINAL, JUST TRY
TO BE GOOD. ”**

—Paul Rand paraphrasing Ludwig Mies van der Rohe's quote:

“I don't want to be interesting. I want to be good.”

Av sex månader återstår nu blott tre veckor
och alla vänliga människor. Jag kommer att s

2D Transforms Module

Transforms

Why not find out when we release things?

Name:

Email:

Do you skate?:

- Yes.
- No.
- Are you kidding me?

Do you design?:

- Nope.
- Sometimes.
- All day long!

Site:

Occasional email newsletters. Your privacy is sacred. You'll never be spammed by us, except to promote ourselves, naturally.



Benefits of CSS3 *(besides looking cool)*

Decrease

development time
maintenance time
page loading time

Increase

usability
accessibility
adaptability across devices
search engine placement

Reduced development and maintenance time

- Less images, Flash, JavaScript
- Streamlined markup

Increased page performance

- Smaller file sizes
- Fewer HTTP requests

Reducing the number of HTTP requests...is the **most important** guideline for improving performance for first time visitors.

Yahoo! Exceptional Performance Team,
<http://developer.yahoo.com/performance/rules.html>

Better search engine placement

- Google uses speed as ranking factor
- Real text instead of image or Flash text

Increased usability

- Real text
- Optimized styles based on device capabilities

Real-world example

The screenshot shows the homepage of the University of North Carolina Highway Safety Research Center. The header features the center's logo and name, a search bar, and a 'sign up for email updates' button. A navigation menu includes links for Safety Information, Research Library, News Room, About Us, Web Sites, Newsletter, Links, and How You Can Help. A large blue banner celebrates 'over 40 years of excellence in Highway Safety Research' with a 'skip movie' button. The main content area is divided into 'HSRC PROJECT AREAS' and 'LATEST NEWS'. The project areas list Alcohol Impairment, Driver Behavior, Occupant Protection, Pedestrian and Bicycle Safety, Roadway Design and Traffic Safety, and Young Drivers. The latest news section features a 'Directions' newsletter cover for winter 10 and a link to 'New edition of Directions now available'. The footer contains contact information and 'Contact Us' and 'Site Map' buttons.

THE UNIVERSITY OF NORTH CAROLINA
HIGHWAY SAFETY RESEARCH CENTER

sign up for email updates

search

Safety Information | Research Library | News Room | About Us | Web Sites | Newsletter | Links | How You Can Help

Celebrating **over 40 years** of excellence in Highway Safety Research

skip movie

HSRC PROJECT AREAS

For over 40 years, the University of North Carolina Highway Safety Research Center has conducted interdisciplinary research aimed at reducing deaths, injuries and related societal costs of roadway crashes.

- Alcohol Impairment
- Driver Behavior
- Occupant Protection
- Pedestrian and Bicycle Safety
- Roadway Design and Traffic Safety
- Young Drivers

LATEST NEWS

Directions winter 10

New Clearinghouse helps transportation professionals select road safety improvements

Transportation professionals now have a new resource to help them identify, implement and evaluate cost-effective roadway safety improvements. The UNC Highway Safety Research Center (HSRC), with funding from the U.S. Department of Transportation Federal Highway Administration, has established the Crash Modification Factors (CMF) Clearinghouse, a central, Web-based repository of Crash Modification Factors, or CMFs. The CMF Clearinghouse is located at www.CMFclearinghouse.org.

HSRC News Briefs

- NC DOT providing micro-grants to communities
- HSRC participates in annual TRB meeting
- HSRC, FHWA, and SEUW
- HSRC e-briefs reaching back to the beginning
- HSRC in the News

New edition of *Directions* now available

Find out about HSRC's latest research and initiatives in the e-newsletter *Directions*... [Read More](#)

The University of North Carolina Highway Safety Research Center: CB# 3430, Chapel Hill, NC 27599
Phone: 919-962-2202 or (in NC) 800-672-4527 Fax: 919-962-8710

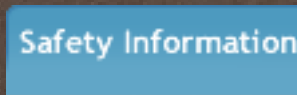
Contact Us | Site Map

Before CSS3

| | FF 3.6 | IE 8 | IE 6 |
|-----------------------------|--------|------|------|
| HTTP requests | 36 | 37 | 47 |
| Loading time <i>seconds</i> | 1.5 | 1.3 | 3 |

The nav bar

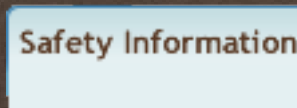
Before: 8 images



inactive



hovered



current page indicator

The nav bar

Before: 8 images

Safety Information

inactive

Safety Information

hovered

Safety Information

current page indicator

After: 1 image

About Us How You Can Help Links Newsletter News Room Research Library Safety Information Web Sites

About Us How You Can Help Links Newsletter News Room Research Library Safety Information Web Sites

About Us How You Can Help Links Newsletter News Room Research Library Safety Information Web Sites

Before CSS3, optimized

| | FF 3.6 | IE 8 | IE 6 |
|-----------------------------|--------|-------|-------|
| HTTP requests | 29 | 30 | 33 |
| Loading time <i>seconds</i> | 1.3 | 1.15 | 2 |
| <i>decrease</i> | ↓ 13% | ↓ 11% | ↓ 33% |

After CSS3

| | FF 3.6 | IE 8 | IE 6 |
|-----------------------------|--------|-------|-------|
| HTTP requests | 22 | 23 | 24 |
| Loading time <i>seconds</i> | 1.1 | 1 | 1.5 |
| <i>decrease</i> | ↓ 15% | ↓ 13% | ↓ 25% |

IE 9 beta



sign up for email updates

 search

- Safety Information
- Research Library
- News Room
- About Us
- Web Sites
- Newsletter
- Links
- How You Can Help

This content requires the free Macromedia flash player.
[Click here to get Flash](#)

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- Alcohol Impairment
- Driver Behavior
- Occupant Protection
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- Roadway Design and Traffic Safety
- Young Drivers

LATEST NEWS

Directions winter 10

New Clearinghouse helps transportation professionals select road safety improvements

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- HSRC participates in annual TRB meeting
- HSRC, SHRP and SESUS
- HSRC activities reaching back to the beginning
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LATEST NEWS



DIRECTIONS winter 10

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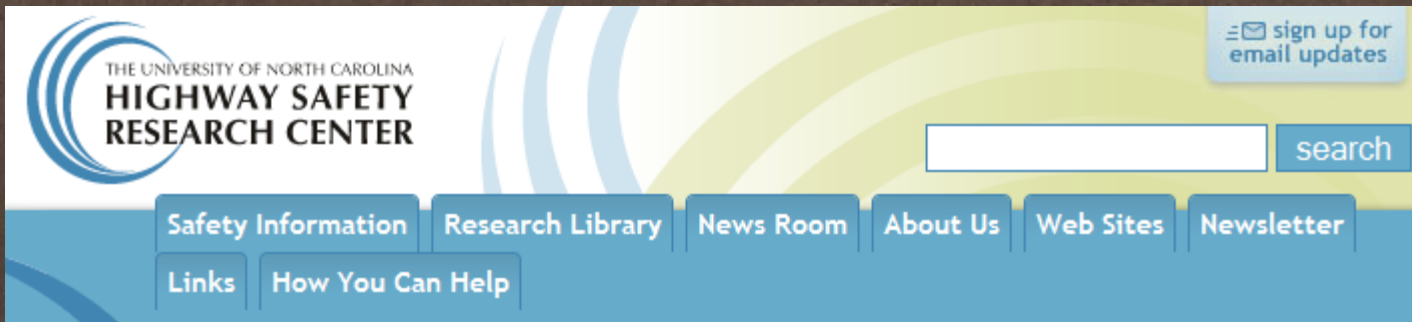
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Wrapping tabs



Larger text + narrow window =
ugly Amazon double-row tabs from 2000



Media query for nav bar

```
@media all and (max-width:52em) {  
  #swoosh { display: none; }  
  #mainnav { padding: 8px 0; }  
  #mainnav ul { margin: 0; }  
  #mainnav li {  
    margin-left: 12px;  
    padding: 0;  
    border: none;  
    -moz-border-radius: 0;  
    -webkit-border-radius: 0;  
    border-radius: 0;  
    background: none; }  
  #mainnav li:hover { background: none; }  
}
```

English translation:
Up to a maximum width of 52 ems, use these styles. Once you get past 52 ems, use the regular styles.

Media queries for mobile

`min-width`

`max-width`

`device-width`

`min-device-width`

`max-device-width`

`orientation`

`-webkit-min-device-pixel-ratio`

Targeting iPhone, Android, etc.

@media screen and

portrait & landscape (min-width: 320px) and
(max-width: 480px)

portrait & landscape (min-device-width: 320px) and
(max-device-width: 480px)

portrait & landscape (max-device-width: 480px)

landscape only (min-width: 321px)

portrait only (max-width: 320px)

Targeting iPad

@media screen and

portrait & landscape (min-device-width: 768px) and
(max-device-width: 1024px)

landscape only (min-width: 769px)

landscape only (min-device-width: 481px) and
(max-device-width: 1024px)
and (orientation: landscape)

portrait only (min-device-width: 481px) and
(max-device-width: 1024px)
and (orientation: portrait)

Viewport meta tag

Forces mobile devices to scale viewport to actual device width

```
<meta name="viewport"  
      content="width=device-width,  
              minimum-scale=1.0,  
              maximum-scale=1.0">
```

Learn more

Download slides, get links:

www.zomigi.com/blog/web-directions-usa/

Book:

www.stunningcss3.com

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Questions?

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