

FRONT END WEB DEVELOPMENT

CLASS 14: GRIDS + FRAMEWORKS

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OBJECTIVES

- Grid systems
 - What is a “grid”?
 - Benefits of using a grid system
- Implementing a grid system using a framework
 - Front end frameworks
 - Benefits and drawbacks of frameworks
 - Bootstrap

GRID SYSTEMS

Vermont Symphony Orchestra

Winter
2007
Season

Aaron Copland
The Tender Land
January 2007

Eric Satie
Gymnopedie 1, 2
February 2007

01/12/07
Middlebury College
Center for the Arts
8:00 pm

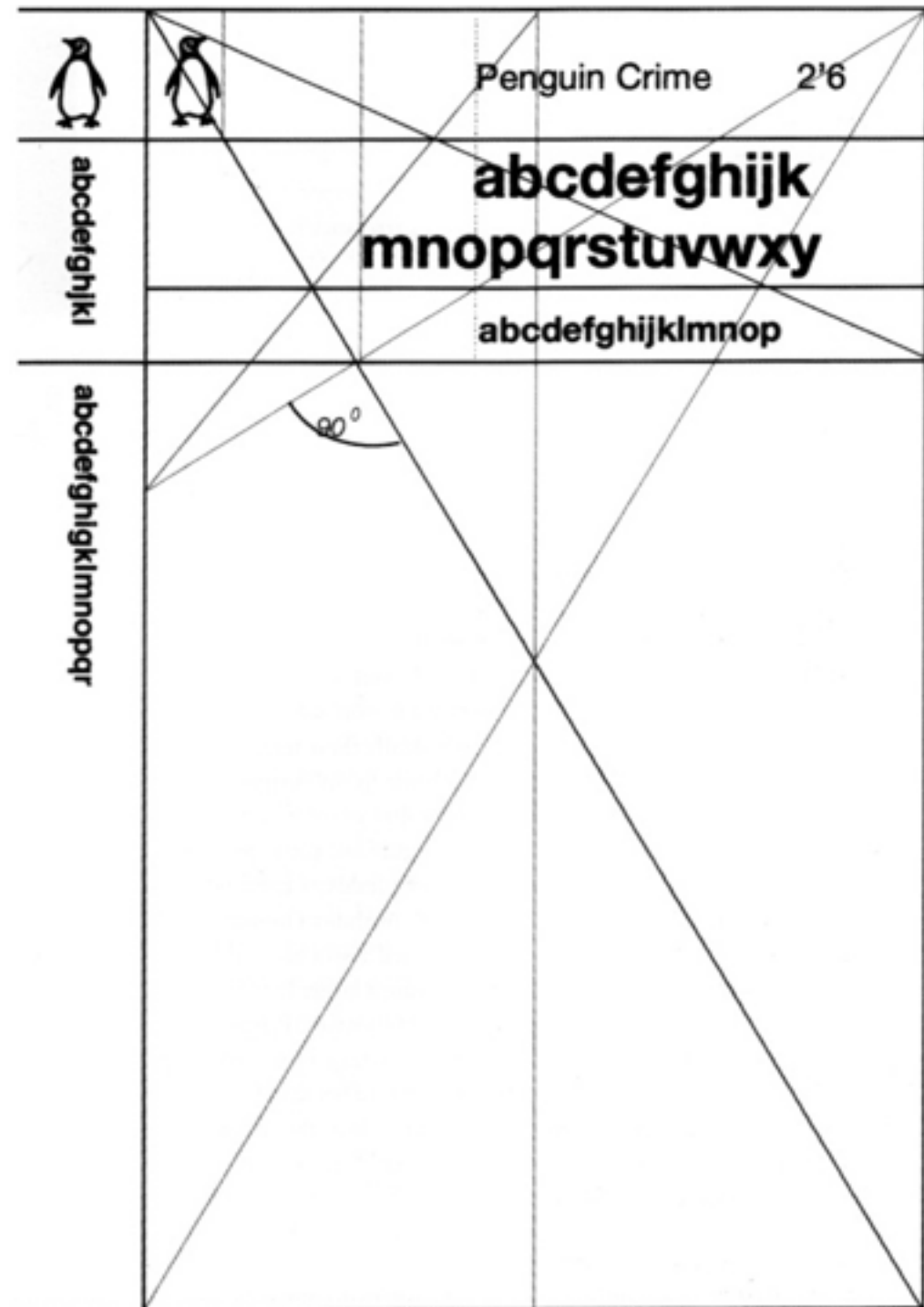
02/03/07
Johnson State College
Dibden Center for the Arts
8:00 pm

01/19/07
Johnson State College
Dibden Center for the Arts
8:00 pm

02/10/07
Castleton State College
Fine Arts Center
8:00 pm

01/26/07
Lyndon State College
Alexander Twilight Theater
8:00 pm

02/17/07
Middlebury College
Center for the Arts
8:00 pm



BENEFITS

- *“Design is nothing if not order applied to disorder”*
– Khoi Vinh
- Helps guide a rationale for placement of content
- Provides a design constraint that can be helpful but broken when necessary

DRAWBACKS

- › Potential to add more “unsemantic” elements to our documents
- › Page layout is presentational – grid system HTML breaks the separation of concerns
- › The W3C have a working draft for a CSS Grid Layout Module which is presently only implemented in recent versions of IE
- › Adds another external dependency unless we write our own

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GRIDS IN WEB DESIGN

- Afforded by the combination of HTML + CSS
 - HTML defines the “rows” and “columns” of content that makes up the structure of the grid
 - CSS adds the necessary styles to define the boundaries of the rows and columns
 - Some grid systems can respond to device context to provide responsiveness

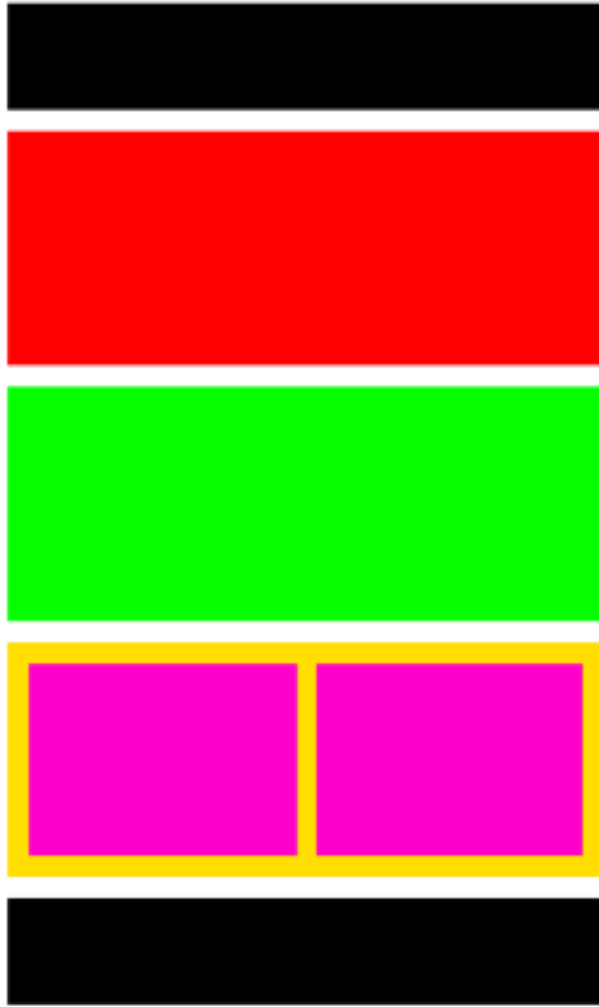
MAJOR PLAYERS

Name	Notes
960gs	Hugely popular in its day, no responsive features
Unsemantic	Uses percentage widths instead of columns – the successor to 960gs
Golden Grid System	Makes use of 16 columns rather than the usual 12 in web design
Frameless Grid System	Adaptive grid system, rather than responsive

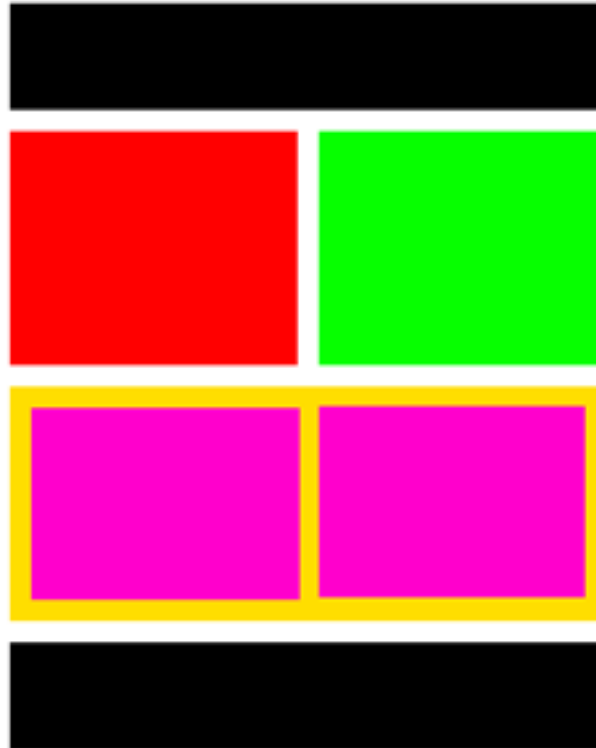
CODE ALONG: FOUNDATION GRID SYSTEM

LAB: LAYOUT WITH GRID SYSTEM

Mobile



Tablet



Desktop



FRONT END FRAMEWORKS

WHAT?

- A framework, in the purest sense, is an opinionated set of guidelines to help you build something
- Front end frameworks provide you with a combination of HTML, CSS and JavaScript that define different components you can reuse
 - Grid system
 - Typography
 - Modals or other behavioural components

BENEFITS

- Very easy to quickly scaffold a web application using the given components
- Code has been tested across all browsers
- Frameworks get updated regularly with new features or better performance
- Can give a solid foundation to build on top of –
General Assembly uses the Foundation grid system

DRAWBACKS

- Possible to build interfaces that look identical to one another
- Frameworks get updated regularly, potentially leaving you using an outdated version
- Easy to become dependent on code you don't understand

MAJOR PLAYERS

Name	Version	Notes
Bootstrap	3.1.1	Created by two former Twitter developers, now claims to be the “most popular front-end framework for developing responsive, mobile first projects on the web.”
Zurb Foundation	5.0	Maintained by web agency Zurb, it is Bootstrap’s closest competitor and shares many principles and features
YUI	3.1.6.0	Maintained by Yahoo, it “is a free, open source JavaScript and CSS library for building richly interactive web applications.”

CODE ALONG: BOOTSTRAP

LAB: COLLAPSE GROUP JAVASCRIPT COMPONENT

HTML5 BOILERPLATE

WHAT?

- A project that provides an opinionated starting point for new front-end projects
- Regularly maintained and updated with best practices
- Contributed to by luminaries like Paul Irish and Nicholas Gallagher

BENEFITS

- Lots less code to write initially
- Already includes jQuery and Modernizr, two of the most popular Javascript libraries
- Can be downloaded as a custom build with just the things you desire

DRAWBACKS

- Opinionated
- By default, ships with a fair chunk of code you likely don't want or need
- Assumes you are using version control (you should be, though!)
- Ships with some potentially harmful server configurations

SHOW & TELL:

HTML5 BOILERPLATE

Q&A