The Shock of the New: Trouble in Utopia
BBC Television, 1980
Sir Christopher Wren's Plan for Rebuilding the City of London after the Great Fire in 1666.
The future of London cannot be an accident like the past. If it is to hold together, to remain a workable, manageable unit, it must now be planned, be designed, be organised.

— Frank Pick, 1926
BRIGHTEST LONDON IS BEST REACHED BY

TROOPING THE COLOUR
SATURDAY JUNE 4TH
NEAREST STATIONS
TRAfalGAR SQUARE STRAND
ST JAMES PARK WESTMINSTER

FOR THE ZOO, BOOK TO REGENT'S PARK OR CAMDEN TOWN
The test of the goodness of a thing is its **fitness for use**. If it fails on this first test, no amount of ornamentation will make it any better; it will only make it more expensive, more foolish.

— Frank Pick, 1916
Chaos
What is a design system?
Design Principles

Design principles are short, insightful phrases that act as guiding lights and support the development of great product experiences. Design principles enable you to be true to your users and true to your strategy over the long term.

— Kate Rutter
Designers: brand identity guidelines
Writers: tone of voice & style guides
Developers: code styles/conventions

Coding Style

- Use soft-tabs with a two space indent.
- Keep lines fewer than 80 characters.
- Never leave trailing whitespace.
- End each file with a blank newline.
- Use spaces around operators, after commas, colons and semicolons, around { and before }.

```ruby
sum = 1 + 2
a, b = 1, 2
1 > 2 ? true : false; puts "Hi"
[1, 2, 3].each { |x| puts x }

No spaces after {, [ or before ], }.

some_array.other
[1, 2, 3].length

No spaces after :.

t.array.include?(element)
```
Shared vocabularies

- Pixies
- Standfirst
- Bentos
- Mini-bentos
Design systems and Postel’s Law

Policing a design system never works in my experience. It never works because people don’t like rigid systems, being told what to do, and will straight up do the opposite. Being liberal in accepting things into the system, and being liberal about how you go about that, ensures you don’t police the system. **You collaborate on it.**

— Mark Boulton
Components
I’ve found that thinking about my design as existing in broad experience tiers – in layers – is one of the best ways of designing for the modern web.

— Ethan Marcotte
Component concerns

- Behaviour
- Presentation
- Meaning
- Content
## Movie rating

The average rating is 4 out of 5 stars, from a total of [12 reviews](/reviews).

### Add your score

Your name: [     ]

Rating: ( ) 1   ( ) 2   ( ) 3   ( ) 4   ( ) 5

[ ] Remember my details

( Submit rating )
Component concerns

- Behaviour

- Presentation

- Meaning

- Content
<meter value="4" min="0" max="5">4 out of 5 stars</meter>
<section class="c-rating">
  <h1 class="c-rating__title">Movie rating</h1>
  <span class="u-hidden">The average rating is</span>
  <meter class="c-rating__value" value="4" min="0" max="5">
    4 out of 5 stars
  </meter>
  <span class="u-hidden">from a total of</span>
  <a class="c-rating__reviews" href="/reviews/">12 reviews</a>
</section>
.c-[module-name] {...
.c-[module-name]__body {...

// Header
.c-[module-name]__header {...
.c-[module-name]__title {...

// Content
.c-[module-name]__main {...
.c-[module-name]__content {...
.c-[module-name]__items {...
.c-[module-name]__item {...

// Footer
.c-[module-name]__footer {...}
Component concerns

- Behaviour
- Presentation
- Meaning
- Content
// Colour palette
=color-brand--crimson: #c00;
=color-brand--mustard: #fc0;
=color-neutral--darkest: #222;
=color-neutral--darker: #444;
=color-neutral--dark: #666;
=color-neutral--mid: #888;
=color-neutral--light: #bbb;
=color-neutral--lighter: #ddd;
=color-neutral--lightest: #eee;
// Colour assignments

$color-text: $color-neutral--darkest;
$color-background--light: $color-neutral--darkest;
$color-background--dark: $color-neutral--darkest;

$color-link: $color-brand--crimson;
$color-link--hover: darken($color-brand--crimson, 10%);
$color-link--active: lighten($color-brand--crimson, 10%);
@mixin typeset($preset, $level) {
  @if ($preset == title) {
    font-family: $typeface-serif;
    font-weight: bold;
    letter-spacing: 0.0025em;
    text-transform: uppercase;
  }

  @if ($level == 1) {
    font-size: 1em;
    line-height: 1.25em;
  }
  @if ($level == 2) {
    font-size: 2em;
    line-height: 2em;
  }
...
.c-module__title {
  font: bold 2em/1 Georgia, serif;
  margin-bottom: 1.5em;
  padding-top: 0.75em;
  letter-spacing: 0.0025em;
  text-transform: uppercase;
  color: #222;
}

.c-module__title {
  @include typeset(title, 2);
  margin-bottom: ($baseline * 4);
  padding-top: ($baseline * 2);
  color: $color-text;
}
Glorious Gothenburg: a tale of reinvention / Locals' guide to the city

Gothenburg has reinvented itself to show off the best of cutting-edge Swedish design, food and music. In our latest guide to Europe’s alternative cities local creatives reveal their favourite spots
Component concerns

- Behaviour
- Presentation
- Meaning
- Content
Connections
Photograph: Governo do Brasil
Always design a thing by considering it in its next larger context – a chair in a room, a room in a house, a house in an environment, an environment in a city plan.

— Eliel Saarinen
The wrong analogy?

- Composite
- Static
- Encapsulated
- Clear affordances

- Separate concerns
- Dynamic
- Leaky
- Difficult to reason with
Bringing encapsulation to the web

BEM
en.bem.info

React
facebook.github.io/react

Web Components
webcomponents.org
Composition
Design is the art of considered creation. Our goal is to satisfy the diverse spectrum of human needs. As those needs evolve, so too must our designs, practices, and philosophies.

We challenged ourselves to create a visual language that synthesizes the classic principles of good design with the innovation and possibility of technology and science.

This is Material Design.
Component libraries

http://fractal.build
The container model

next.theguardian.com/blog/container-model-blended-content
Confluence of interests

Readers
Editors
Designers
Developers
Solution
The container model

- Items
- Slices
- Containers
Page choreography: pace, rhythm and flow to lead the reader

- Dense content, fast paced and quick to read
- Slow image driven content, slower to scan through
101 Things I Learned in Architecture School
Matthew Frederick
Three levels of knowing

Simplicity
3 elements used to create 3 spaces

Complexity
12 elements required to create 12 spaces

Informed simplicity
3 elements combined to create 12 spaces
Change
The Roundel, guiding you through London for over 100 years.
10.11 Holden (Northern Style)

**Alesa (Northern Style)** The first Style of Charles Holden, the Underground's consultant architect, and his closely associated partner, who dominated every major work undertaken by the Underground between 1918 and 1937. They were the first to exploit extensively a similar design, with the Brazilian influence, in their projects.
A design system should not simply be a collection of user interface components along with some design theory. It should demonstrate how design patterns have been applied in real products and document how other teams have extended patterns for specific use cases.

— Jeff Crossman, former Product Designer at General Electric
Shearing layers

Our basic argument is that there isn’t any such thing as a building. A building properly conceived is several layers of longevity of built components.

— Frank Duffy, quoted in How Buildings Learn
Complexity
Danke!