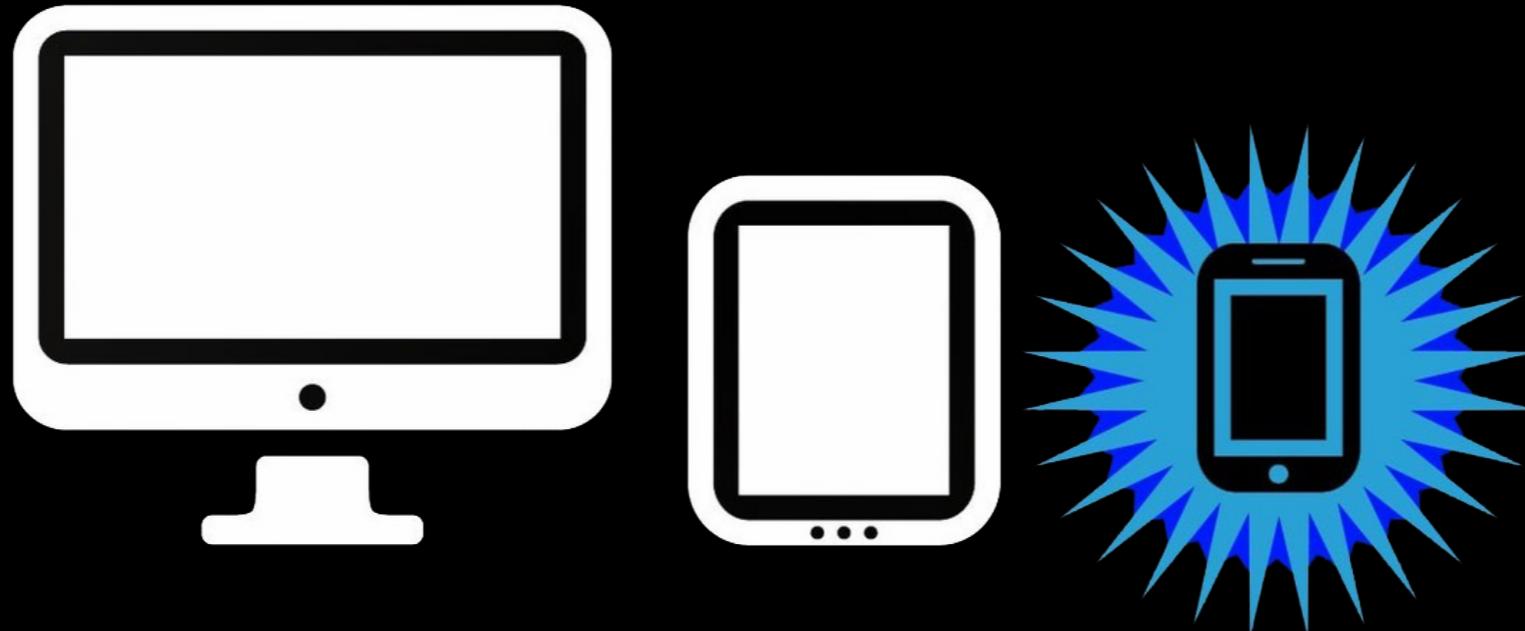


# RESPONSIVE WEB DESIGN



POR ARKAITZ GARRO

I.  
INTRODUCCIÓN

2.  
ESTRUCTURA  
DE REJILLA  
FLEXIBLE

3.  
IMÁGENES  
FLEXIBLES

4.  
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5.  
DESARROLLO  
ADAPTATIVO

# I. INTRODUCCIÓN

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# RESPONSIVE WEB DESIGN

se trata de una técnica de diseño y desarrollo web por el que se consigue que un único sitio se adapte perfectamente a todos los dispositivos que puedan consumirlo, desde **ordenadores de escritorio** a **netbooks, tablets, teléfonos móviles, televisores**, etc.





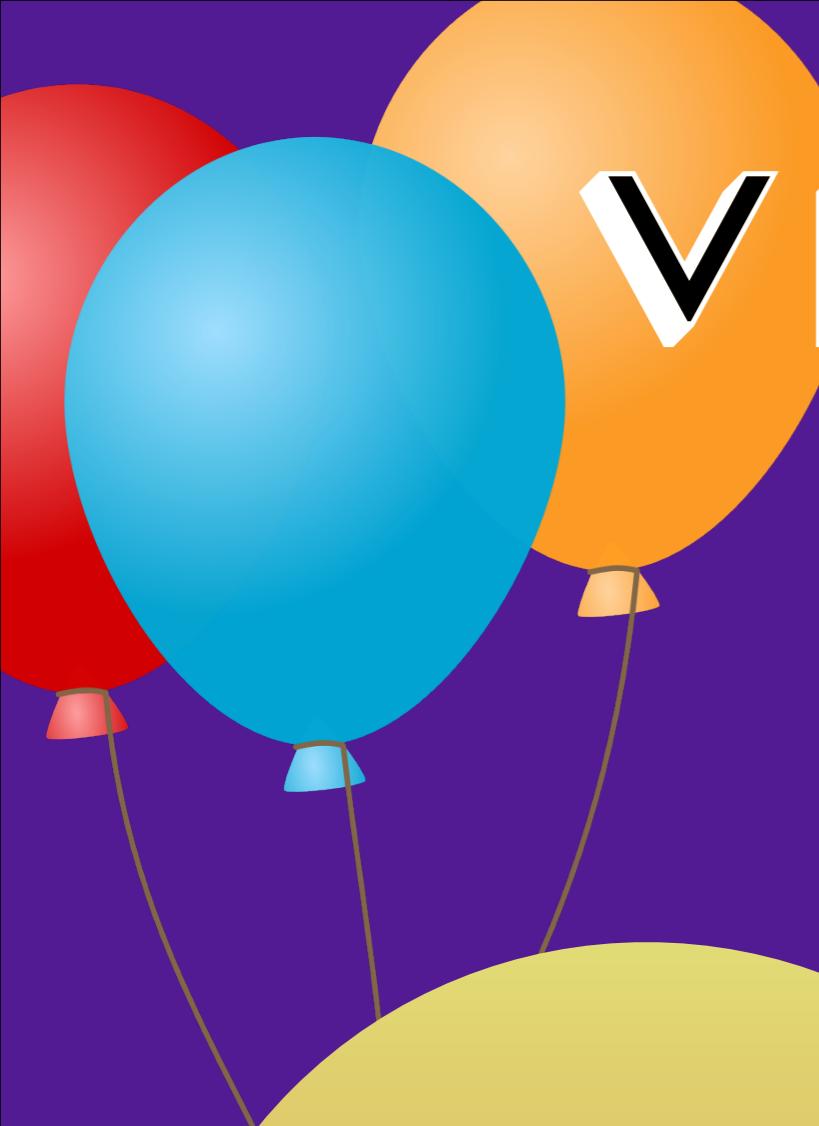
EN DEFINITIVA

SE TRATA DE CONSTRUIR UNA ÚNICA  
WEB PARA QUE SE VEA  
CORRECTAMENTE Y APROVECHE LAS  
PARTICULARIDADES DE TODO  
DISPOSITIVO QUE HOY EXISTA



O PUEDA EXISTIR EN EL FUTURO,  
**INDEPENDIENTEMENTE DE LA**  
PANTALLA EN LA QUE SE MUESTRE.

# VENTAJAS



CON UNA SOLA  
VERSIÓN EN  
HTML Y CSS SE  
CUBREN TODAS  
LAS  
RESOLUCIONES  
DE PANTALLA

REDUCCIÓN  
DE COSTES

OPTIMIZACIÓN  
DE MOTORES DE  
BÚSQUEDA

EFICIENCIA  
EN LA  
ACTUALI-  
ZACIÓN

# EJEMPLOS

## FOODSENSE.IS

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Submit your favorite recipes, become a contributor, or get interviewed.  
photo by Clare Barboza

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2012's Best Summer Cookbooks  
With the best of the season coming from "orchards, farms and gardens," NPR has put together an impressive collection of 10 summer cookbooks.  
May 23, 2012 / Read »



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photo by Clare Barboza

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How to Make Vegetable Chips  
About a month ago, I ate almost an entire box of kale chips. My brother and I were visiting our cousin in Brooklyn, and before a very thoughtfully prepared vegan...

May 23, 2012 / Read »



Join us on Pinterest!  
If I could curate a cookbook for you, this would be it.  
May 16, 2012 / Read »



Recipes from a Sunday Supper  
I could not figure out what to do with the delectable slices of Pear Cake that I brought home from this wonderful Sunday supper - eat them slowly, a little bit at...

May 15, 2012 / Read »

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Tastemakers Blog The A-List Contribute About



Share your Food Sense  
Submit your favorite recipes, become a contributor, or get interviewed.  
photo by Clare Barboza

Sign up for our newsletter to receive a handpicked selection of the best stories, recipes, and news, delivered weekly to your inbox.

Email  Subscribe

LET'S BE FRIENDS!  
For weekly finds, community recommendations, and more, like us on Facebook.  
Join the Community

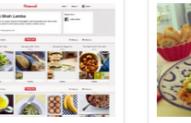


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May 15, 2012 / Read »

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# EJEMPLOS



ABOOKAPART.COM

The image displays three side-by-side screenshots of the A Book Apart website, illustrating the design and layout of their product pages.

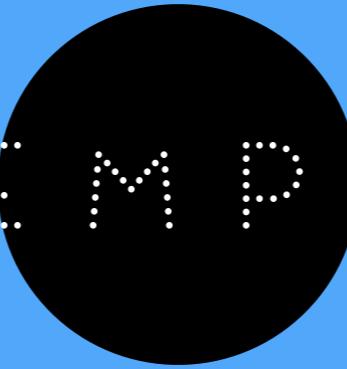
**Screenshot 1 (Left):** Shows the product page for "SASS FOR WEB DESIGNERS" by Dan Cederholm. The page features a large book cover image, the author's name, and the book title in a prominent pink font. Below the title, a short description and a "BUY NOW" button are visible. The sidebar on the left lists other books from the same series.

**Screenshot 2 (Middle):** Shows the same product page as the first screenshot, but with a different background color scheme and a slightly different layout for the sidebar.

**Screenshot 3 (Right):** Shows a more detailed view of the product page, including a larger image of the book cover, the author's name, and the title. It also includes a brief description, a "BUY NOW" button, and a section titled "ALSO FROM A BOOK APART" featuring other books by the same author or publisher.

The website has a clean, modern design with a white background and a dark header bar. The navigation menu at the top includes links for HOME, STORE, PRESS, ABOUT, and HELP. The overall aesthetic is professional and focused on web design and development resources.

# EJEMPLOS



ANDERSSONWISE.COM

The image is a collage of architectural photography and studio branding for Andersson-Wise. It includes:

- A top-left corner showing a modern building facade with large windows.
- A top row of three landscape photographs: 1) A view of a swimming pool and lounge area through a window frame. 2) A wide shot of a swimming pool surrounded by green lawns and trees. 3) A view of a swimming pool from behind a glass wall.
- A middle row of three landscape photographs: 1) A close-up of a low concrete planter. 2) A view of a swimming pool and lounge area. 3) A view of a swimming pool and lounge area.
- A bottom row of three sections: 1) A dark green vertical banner with white text: 'FEATURED PRESS WORK AT ST. STEPHEN'S SCHOOL IN TEXAS ARCHITECT'. 2) A dark green vertical banner with white text: 'FEATURED PRESS WORK AT ST. STEPHEN'S SCHOOL IN TEXAS ARCHITECT'. 3) A dark green vertical banner with white text: 'FEATURED PRESS WORK AT ST. STEPHEN'S SCHOOL IN TEXAS ARCHITECT'.

The overall layout is a grid-like composition with varying image sizes and orientations, creating a dynamic visual flow.

# Ingredientes

- ❖ UNA ESTRUCTURA FLEXIBLE, BASADA EN REJILLA.
- ❖ IMÁGENES Y MULTIMEDIA FLEXIBLE.
- ❖ MEDIA QUERIES, COMO PARTE DE LA ESPECIFICACIÓN DE CSS3.



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# ESTRUCTURA DE REJILLA

*flexible*

Estos diseños consisten en una serie de columnas que permiten ordenar y estructurar los contenidos (texto, imágenes, media...) de una manera ordenada y uniforme.



## Vermont Symphony Orchestra

Winter 2007 Season	Aaron Copland <b>The Tender Land</b> January 2007	Eric Satie <b>Gymnopedie 1, 2</b> 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

# ESTRUCTURA DE REJILLA

## Vermont Symphony Orchestra

Winter 2007 Season	Aaron Copland <b>The Tender Land</b> January 2007	Eric Satie <b>Gymnopédie 1, 2</b> 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
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	01/26/07 Lyndon State College Alexander Twilight Theater 8:00 pm	02/17/07 Middlebury College Center for the Arts 8:00 pm

# CREAR UNA REJILLA *flexible*

Vamos a ver cinco componentes que nos permitirán construir una rejilla flexible, y cómo utilizarlas:

- ▶ FUENTES FLEXIBLES
- ▶ CONTENEDORES FLEXIBLES
- ▶ MÁRGENES FLEXIBLES
- ▶ RELLENOS FLEXIBLES
- ▶ IMÁGENES FLEXIBLES

# FUENTES

*flexibles*

```
target ÷ context = result
```



```
font-size: 2em /* 32px/16px */
```

# CONTENEDORES

## flexibles

The screenshot illustrates a website layout using the Genesis Framework. The total width is 960px, divided into three main columns: a header section (960px), a content area (400px), and a sidebar area (540px). The content area contains a post titled "Sample Post With Threaded Comments" from November 1, 2011, by Brian Gardner. The sidebar features several widgets: "EMAIL NEWSLETTER" (sign up for email updates), "USER PROFILE" (profile picture of Brian Gardner with bio text), "BLOGROLL" (links to Development Blog, Documentation, Support Forum, WordPress Plugins, and WordPress Themes), "META" (links to Log in, Entries RSS, Comments RSS, and WordPress.org), and a "TAGS" section.

960px

400px 540px

Genesis Framework  
Taking WordPress To Places You Never Thought It Would Go

HOME SAMPLE PAGE ▾ PAGE LAYOUTS ▾ PAGE TEMPLATES ▾ COLUMN CLASSES CONTACT PAGE NOVEMBER 22, 2011

CATEGORY #1 CATEGORY #2 ▾ CATEGORY #3 CATEGORY #4 CATEGORY #5

Sample Post With Threaded Comments

NOVEMBER 1, 2011 BY BRIAN GARDNER • 6 COMMENTS

This is an example of a WordPress post, you could edit this to put information about yourself or your site so readers know where you are coming from. You can create as many posts as you like in order to share with your readers what exactly is on your mind.

This is an example of a WordPress post, you could edit this to put information about yourself or your site so readers know where you are coming from. You can create as many posts as you like in order to share with your readers what exactly is on your mind. This is an example of a WordPress post, you could edit this to put information about yourself or your site so readers know where you are coming from. You can create as many posts as you like in order to share with your readers what exactly is on your mind.

This is an example of a WordPress post, you could edit this to put information about yourself or your site so readers know where you are coming from. You can create as many posts as you like in order to share with your readers what exactly is on your mind. This is an example of a WordPress post, you could edit this to put information about yourself or your site so readers know where you are coming from. You can create as many posts as you like in order to share with your readers what exactly is on your mind.

EMAIL NEWSLETTER

Sign up to receive email updates and to hear what's going on with our company!

Enter your email address... GO

BLOGROLL

- Development Blog
- Documentation
- Support Forum
- WordPress Plugins
- WordPress Themes

USER PROFILE

I am a hopeless Starbucks addict, freelance web designer/internet consultant living in Chicago. I write poetry and also love to ski. Lastly, I started a company called StudioPress, which develops professionally designed WordPress themes for business and individuals. [\[Read More ...\]](#)

META

- Log in
- Entries RSS
- Comments RSS
- WordPress.org

TAGS

470px 300px 150px

960px

# CONTENEDORES

*flexibles*

```
#wrap {  
    width: 90%;  
    max-width: 960px;  
}  
  
#title-area {  
    width: 41.666667% /* 400px/960px */;  
}
```

# MÁRGENES

*flexibles*

```
.widget-area ul {  
    margin: 10px 0 0 25px;  
}  
  
.widget-area ul {  
    margin: 10px 0 0 16.666667%;  
}
```

# RELENOS

*flexibles*

```
.enews p {  
    padding: 5px 10px 0;  
}  
  
.enews p {  
    padding: 5px 3.33333% 0;  
}
```

# IMÁGENES

*flexibles*

```
img {  
    max-width: 100%;  
}
```

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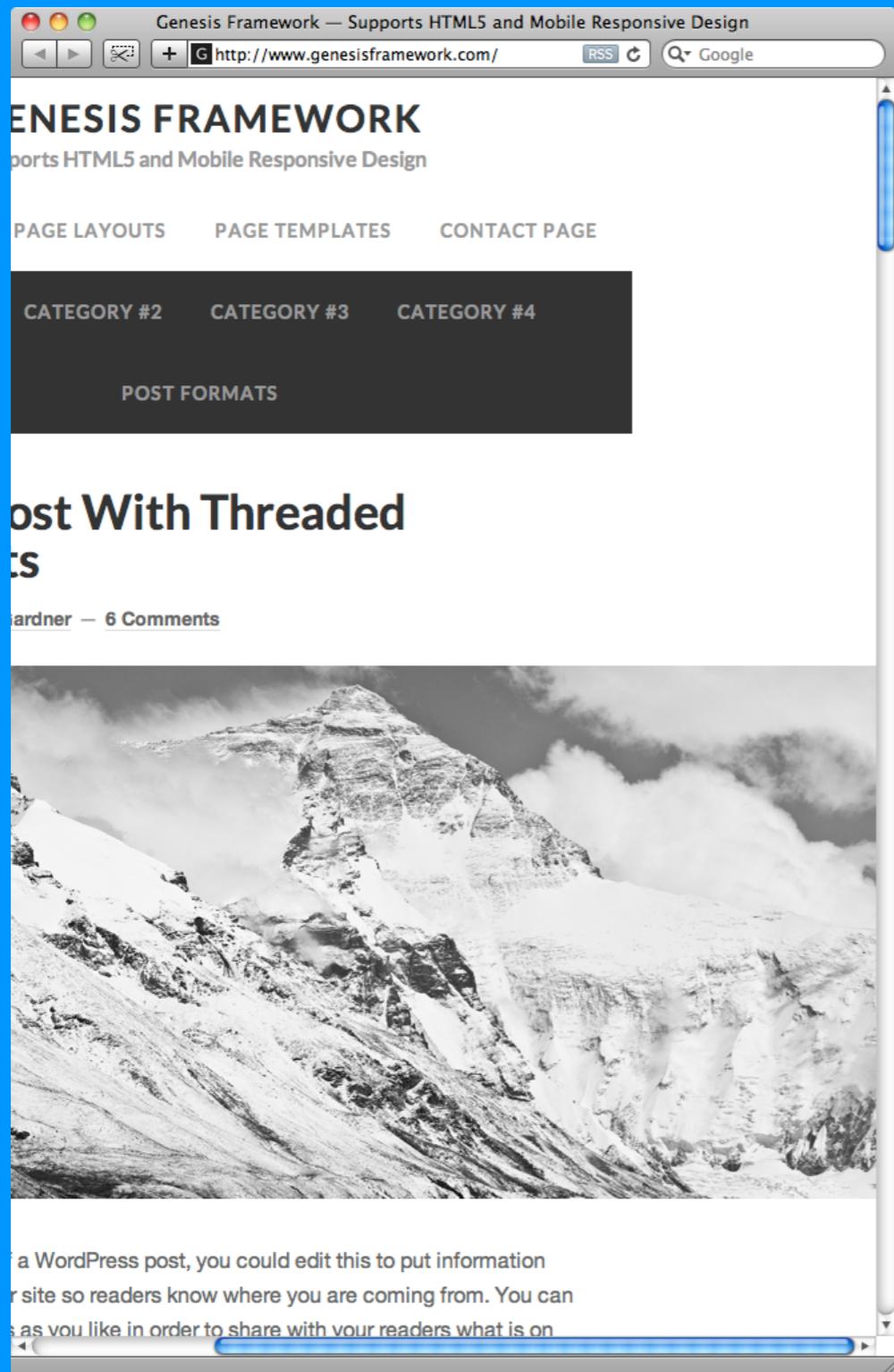
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# IMÁGENES FLEXIBLES



EL PROBLEMA SURGE CUANDO LA IMAGEN PROPORCIONADA SUPEREA LAS MEDIDAS DEL BLOQUE QUE LA CONTIENE.

LA IMAGEN EXcede EL TAMAÑO DEL CONTENEDOR.

# IMÁGENES FLUIDAS

LA SOLUCIÓN AL PROBLEMA  
ANTERIOR SERÍA LA EXPRESADA  
ANTERIORMENTE:

```
img {  
    max-width: 100%;  
}
```

A partir de ahora, todas las imágenes del documento ocuparán como máximo el mismo tamaño que su contenedor, independientemente de su tamaño original.

# IMÁGENES FLUIDAS

Genesis Framework — Supports HTML5 and Mobile Responsive Design

http://www.genesisframework.com/ RSS Google

## GENESIS FRAMEWORK

Supports HTML5 and Mobile Responsive Design

SAMPLE PAGE PAGE LAYOUTS PAGE TEMPLATES CONTACT PAGE

CATEGORY #1 CATEGORY #2 CATEGORY #3 CATEGORY #4

POST FORMATS

### Sample Post With Threaded Comments

April 1, 2013 by Brian Gardner — 6 Comments



This is an example of a WordPress post, you could edit this to put information about yourself or your site so readers know where you are coming from. You can create as many posts as you like in order to share with your readers what is on your mind.

This is an example of a WordPress post, you could edit this to put information about yourself or your site so readers know where you are coming from. You can



OTRA BUENA NOTICIA  
ES QUE EL NAVEGADOR  
**REDIMENSIONARÁ**  
NUESTRA IMAGEN,  
MANTENIENDO LAS  
PROPORCIONES, EN LA  
MEDIDA QUE SU  
CONTENEDOR CAMBIE  
DE TAMAÑO.



ADEMÁS



ESTA REGLA PUEDE SER APLICADA  
AL RESTO DE ELEMENTOS  
MULTIMEDIA.

```
img,  
embed,  
object,  
video {  
    max-width: 100%;  
}
```

# IMÁGENES DE FONDO

background-size

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# MEDIA QUERIES

```
<link rel="stylesheet" type="text/css"  
      media="screen and (max-device-width: 480px)"  
      href="shetland.css" />
```



# MEDIA QUERIES

DOS COMPONENTES:

TIPO DE MEDIO

```
<link rel="stylesheet" type="text/css"  
      media='screen and (max-device-width: 480px)'  
      href="shetland.css" />
```

CONSULTA

VALOR



# MEDIA QUERIES

EN OTRAS PALABRAS

ESTAMOS PREGUNTANDO AL DISPOSITIVO  
SI EL ANCHO DEL DISPOSITIVO (max-device-width)  
ES IGUAL O MENOR A 480px.

SI SE CUMPLE LA CONDICIÓN, EL  
DISPOSITIVO CARGARÁ LA HOJA DE  
ESTILOS `shetland.css`.  
DE OTRA MANERA, EL link SERÁ  
IGNORADO.

LOS

# MEDIA QUERIES

TAMBIÉN PUEDEN SER DEFINIDOS  
DENTRO DE LA PROPIA HOJA DE  
ESTILOS.

```
@media screen and (min-width: 1024px) {  
    body {  
        font-size: 100%;  
    }  
}
```

O INCLUSO UTILIZANDO LA  
SENTENCIA @import:

```
@import url("wide.css") screen and (min-width: 1024px);
```

LAS REGLAS CSS INCLUIDAS  
DENTRO DE UN MEDIA QUERY SE  
APLICAN ÚNICAMENTE CUANDO  
LA CONSULTA CUMPLE

## TODAS LAS CONDICIONES

SI HACEMOS REFERENCIA A UNA  
HOJA DE ESTILOS A TRAVÉS DE  
`link`, ÉSTA SE DESCARGARÁ AÚN  
CUANDO LA CONSULTA NO  
CUMPLA LAS CONDICIONES.

# LOGICAL OPERATORS

## AND

```
@media tv and (min-width: 700px) and (orientation: landscape) { ... }
```

## COMMA-SEPARATED LISTS

```
@media (min-width: 700px), handheld and (orientation: landscape) { ... }
```

## NOT

```
@media not screen and (color), print and (color)
```

## ONLY

```
<link rel="stylesheet" media="only screen and (color)" href="example.css" />
```

# CARACTERÍSTICAS DE LOS MEDIOS

width

height

device-width

device-height

orientation

aspect-ratio

device-aspect-ratio

color

color-index

monocrome

resolution

# VIEWPORT

ESTA ETIQUETA NOS PERMITE DEFINIR EL ANCHO, ALTO Y ESCALA DEL ÁREA USADA POR EL NAVEGADOR PARA MOSTRAR CONTENIDO.

```
<meta name="viewport"  
      content="width=device-width,  
              initial-scale=1,  
              maximum-scale=1">
```

LAS PROPIEDADES A TENER EN CUENTA SON:

width

initial-scale

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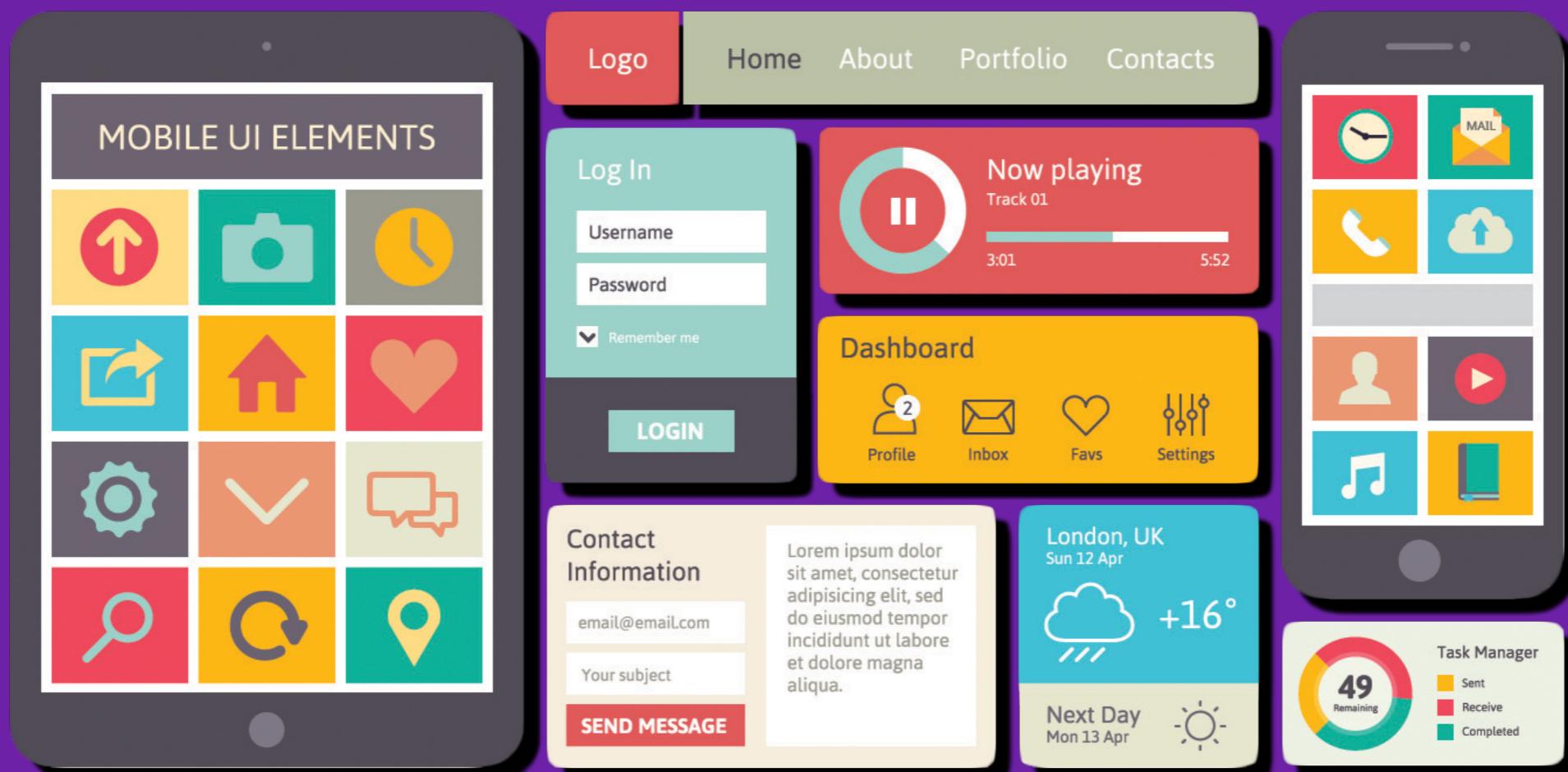
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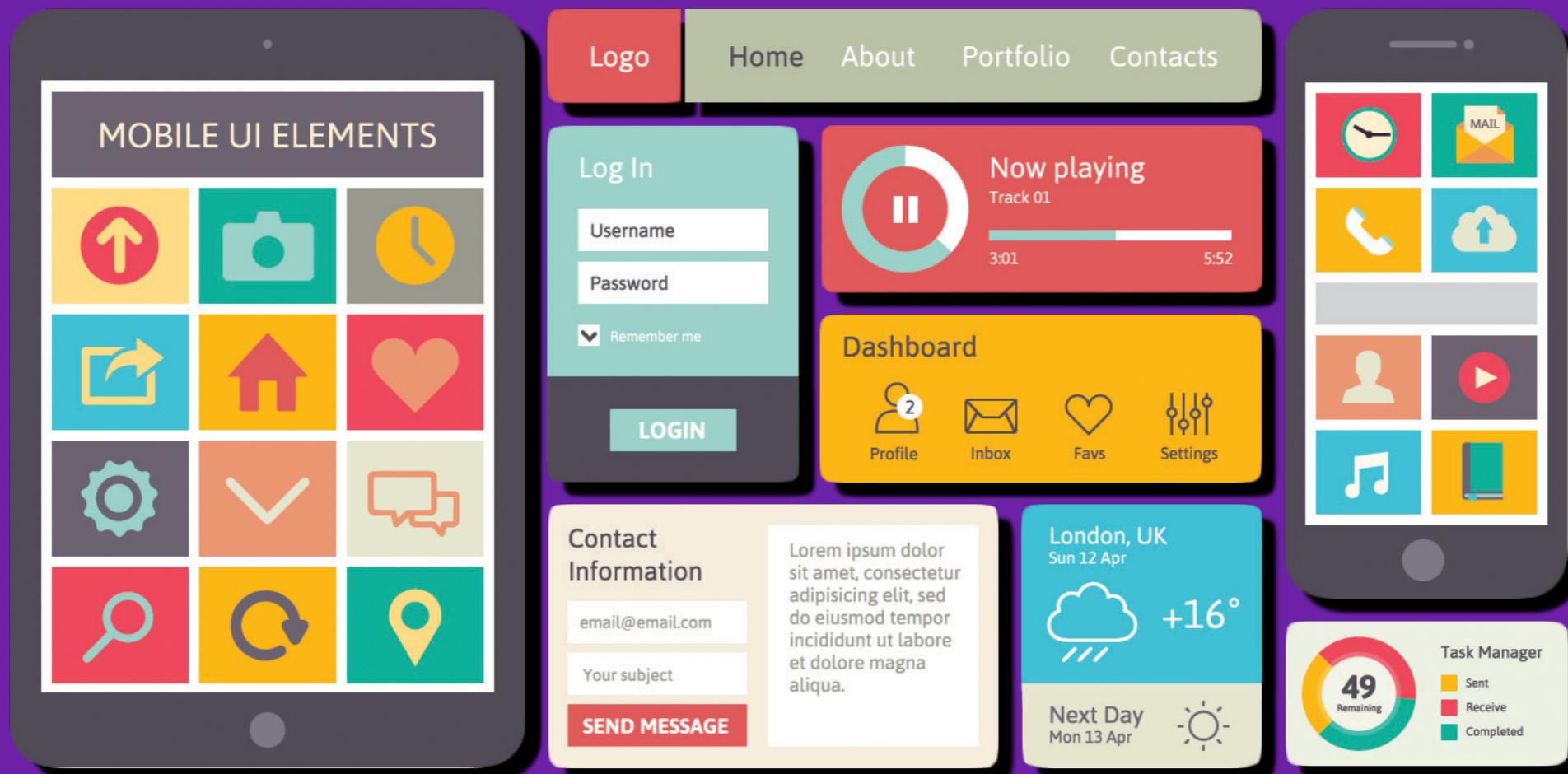
## adaptativo

HASTA AHORA, HEMOS DEFINIDO TODAS LAS HERRAMIENTAS NECESARIAS PARA CREAR ESTRUCTURAS ADAPTATIVAS



# DESARROLLO

## adaptativo



AHORA VEREMOS COMO INCORPORAR ESTAS  
TÉCNICAS A LA HORA DE DESARROLLAR UN  
SITIO WEB ADAPTATIVO.

# LA IMPORTANCIA DEL CONTEXTO



PODEMOS SUPONER EL CONTEXTO  
DEL USUARIO ÚNICAMENTE POR EL  
TIPO DE

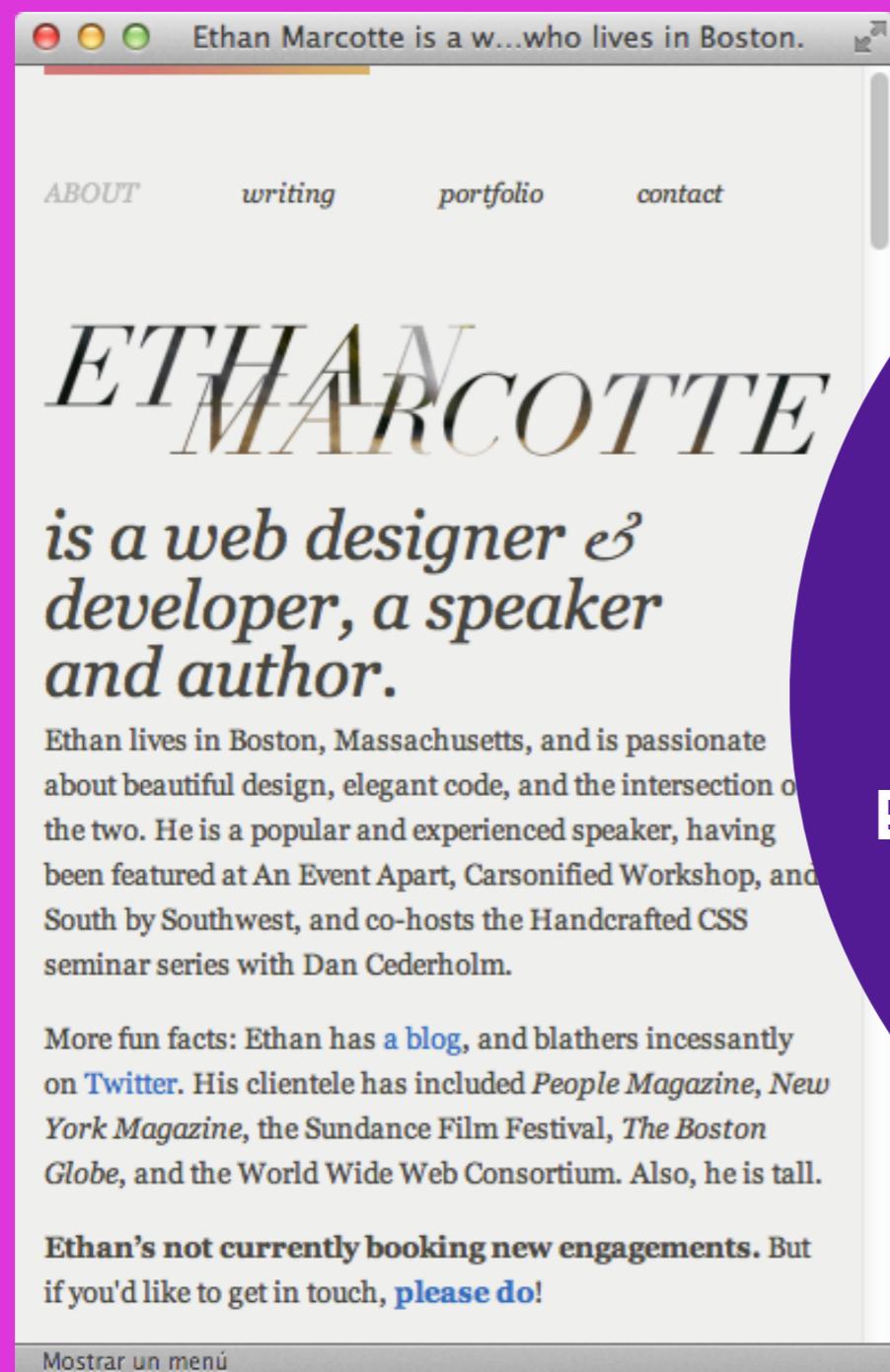


# ESTRATEGIA "MOBILE FIRST"

ESTA ESTRATEGIA COMIENZA  
DEFINIENDO UNA ESTRUCTURA  
PARA DISPOSITIVOS MÁS  
PEQUEÑOS, Y POSTERIORMENTE  
UTILIZANDO LOS MEDIA QUERY  
PARA ESCALAR EL DISEÑO A  
MAYORES RESOLUCIONES.

# ESTRATEGIA "MOBILE FIRST"

UN EJEMPLO ES LA WEB DE ETHAN MARCOTTE.



POR DEFECTO, EL CONTENIDO ES MOSTRADO DE UNA MANERA LINEAL, PENSADO ESPECIALMENTE PARA DISPOSITIVOS MÓVILES.

Mostrar un menú

ABOUT

writing

portfolio

contact

# ETHAN MARCOTTE

*is a web designer & developer,  
a speaker and author.*

Ethan lives in Boston, Massachusetts, and is passionate about design, elegant code, and the intersection of the two. He's an experienced speaker, having been featured at An Event Apart, the Awwwards Workshop, and South by Southwest, and co-hosted the first ever CSS seminar series with Dan Cederholm.

More fun facts: Ethan has a [blog](#), and blathers on [Twitter](#). His clientèle has included *People Magazine*, *New York Magazine*, the *Academy Award* Film Festival, *The Boston Globe*, and the *World Cup*. And he is tall.

Mostrar un menú

A MEDIDA QUE  
EL ESPACIO  
DISPONIBLE AUMENTA,  
SE MUESTRA EL DISEÑO  
COMPLETO. LA  
ESTRUCTURA SE VUELVE  
MÁS COMPLEJA, CON  
ASSETS MÁS  
PESADOS.

# LA ESTRUCTURA BÁSICA DE LA HOJA DE ESTILOS ES LA SIGUIENTE:

```
/* Default, linear layout */
.page {
    margin: 0 auto;
    max-width: 700px;
    width: 93%;
}

/* Small screen! */
@media screen and (min-width: 600px) { ... }

/* "Desktop" */
@media screen and (min-width: 860px) { ... }

/* IT'S OVER 9000 */
@media screen and (min-width: 1200px) { ... }
```

# CARGAR EL CONTENIDO DE MANERA PEREZOSA

*pero inteligente*

HABLAMOS DE MOSTRAR EL  
CONTENIDO INDISPENSABLE Y  
CARGAR EL RESTO UTILIZANDO  
AJAX.