

HTML, CSS

ISIS 3710



HTML: Hyper Text Markup Language

**HTML es el lenguaje de etiquetas
usado en Internet para
construir páginas web**

HTML fue introducido en la primer versión de WWW (Timothy Berners-Lee, CERN)

HTML: Hyper Text Markup Language

```
<!DOCTYPE html PUBLIC
  "-//W3C//DTD XHTML 1.0 Transitional//EN"
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-
  transitional.dtd">
<html>
  <head>
    <title>
      My Home Page
    </title>
  </head>
  <body>
    <h1>My Home Page </h1>
    <p>
      Welcome to my home page
    </p>
  </body>
</html>
```

HTML: Hyper Text Markup Language

```
<!DOCTYPE html PUBLIC  
  "-//W3C//DTD XHTML 1.0 Transitional//EN"  
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-  
transitional.dtd">  
<html>  
  <head>  
    <title>  
      My Home Page  
    </title>  
  </head>  
  <body>  
    <h1>My Home Page </h1>  
    <p>  
      Welcome to my home page  
    </p>  
  </body>  
</html>
```

Lenguaje/
Tipo de documento

Etiqueta (Tag)

HTML: Hyper Text Markup Language

```
<HTML>
  <head>
    <title>Hola Mundo</title>
  </head>
  <body bgcolor="#000000" >
    <font color="#ffffff" >
      <H1>Hola Mundo</H1>
    </font>
    <hr>
    Contradicci&onacute;n: Ejemplo de entidad
  </body>
</HTML>
```

HTML: Hyper Text Markup Language

```
<HTML>
  <head>
    <title>Hola Mundo</title>
  </head>
  <body bgcolor="#000000">
    <font color="#ffffff" >
      <H1>Hola Mundo</H1>
    </font>
    <hr>
    Contradicci&onacute;n: Ejemplo de entidad
  </body>
</HTML>
```

Atributos
visuales

HTML: Hyper Text Markup Language

**HTML y las páginas WEB ha evolucionado
desde su introducción en 1991**

Las especificaciones han sido mantenidas por el IETF
de W3C Consortium. Recientemente por la WHATWG
La version más reciente es HTML5

HTML: Hyper Text Markup Language

Versión	Año	Estándares
HTML (draft)	1991-1994	
HTML 2.0	1995	IETF RFC 1866
HTML 3.2	1996	
HTML 4.0	1997	
HTML 4.01	1999	ISO/IEC 15445:2000
XHTML 1.0	2000	
XHTML 1.1	2001	
HTML 5	2014	Estándar de IETD + WHATWG

HTML: Hyper Text Markup Language

HTML 5

<!DOCTYPE html>

HTML 4.01 Strict

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN" "http://www.w3.org/TR/html4/strict.dtd">

HTML 4.01 Transitional (deprecated elements like FONT)

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">

HTML 4.01 Frameset (transitional + frameset)

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Frameset//EN" "http://www.w3.org/TR/html4/frameset.dtd">

HTML: Hyper Text Markup Language

XHTML 1.0 Strict

```
<!DOCTYPE html PUBLIC  
"-//W3C//DTD XHTML 1.0 Strict//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-  
strict.dtd">
```

XHTML 1.0 Transitional

```
<!DOCTYPE html PUBLIC  
"-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/  
xhtml1-transitional.dtd">
```

XHTML 1.0 Frameset

```
<!DOCTYPE html PUBLIC  
"-//W3C//DTD XHTML 1.0 Frameset//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-frameset.dtd">
```

Evolución de HTML

Websites: HTMLs enlazados por hiper vínculos



<http://www.warnerbros.com/archive/spacejam/movie/jam.htm>

Evolución de HTML

Websites: HTMLs enlazados por hiper vínculos



<http://www.warnerbros.com/archive/spacejam/movie/jam.htm>

Evolución de HTML

El infierno de los GIFs animados



<http://skavenger.byethost8.com/homerswebpage/>

Evolución de HTML

El infierno de los GIFs animados



<http://skavenger.byethost8.com/homerswebpage/>

Evolución de HTML

FLASH: multimedia a través de plugins



<http://www.nrg.be/archived/>

Evolución de HTML

FLASH: multimedia a través de plugins



<http://www.nrg.be/archived/>

Evolución de HTML

HTML5: multimedia sin el uso de plugins



<http://24hoursofhappy.com/>

Evolución de HTML

HTML5: multimedia sin el uso de plugins

The image shows a screenshot of the Tridiv website. At the top, there's a banner with several 3D geometric shapes (cubes, spheres) in various colors (orange, blue, green, pink, yellow). Below the banner, the Tridiv logo consists of three interlocking geometric shapes in blue, red, and green, followed by the word "TRIDIV". A tagline "Making 3D in CSS has never been easier" is displayed. Below the logo are social sharing buttons for "Vote" (264), "Tweet", "G+" (3.5k), and "Like" (15K). The main content area features a screenshot of the Tridiv web-based editor interface. The interface shows a 3D model of a Star Wars X-wing fighter from different angles. On the right side of the editor, there are various tools and settings. To the right of the editor screenshot, text describes Tridiv as "a web-based editor for creating 3D shapes in CSS". It includes two buttons: "Start using the app" (in blue) and "See examples" (in grey). Below these buttons are icons for five browsers: Google Chrome, Mozilla Firefox, Opera, Safari, and Internet Explorer.

Tridiv is a web-based editor for creating 3D shapes in CSS.

[Start using the app](#) [See examples](#)

Google Chrome Mozilla Firefox Opera Safari Internet Explorer

<http://tridiv.com/>

Evolución de HTML

HTML5: multimedia sin el uso de plugins

The image shows a screenshot of the Tridiv website. At the top, there's a banner with several 3D geometric shapes (cubes, spheres) in various colors (orange, blue, green, pink, yellow). Below the banner, the Tridiv logo consists of three interlocking geometric shapes in blue, red, and green, followed by the word "TRIDIV". A tagline "Making 3D in CSS has never been easier" is displayed. Below the logo are social sharing buttons for "Vote" (264), "Tweet", "G+" (3.5k), and "Like" (15K). The main content area features a large screenshot of the Tridiv web-based 3D modeling editor. The editor interface includes a 3D preview window showing a detailed model of a Star Wars X-wing fighter, a 2D wireframe view, and a toolbar with various tools and settings. To the right of the editor, a descriptive text block reads: "Tridiv is a web-based editor for creating 3D shapes in CSS." It includes two buttons: "Start using the app" (in blue) and "See examples" (in grey). Below these buttons are icons for five different web browsers: Google Chrome, Mozilla Firefox, Opera, Internet Explorer, and Safari.

Tridiv is a web-based editor for creating 3D shapes in CSS.

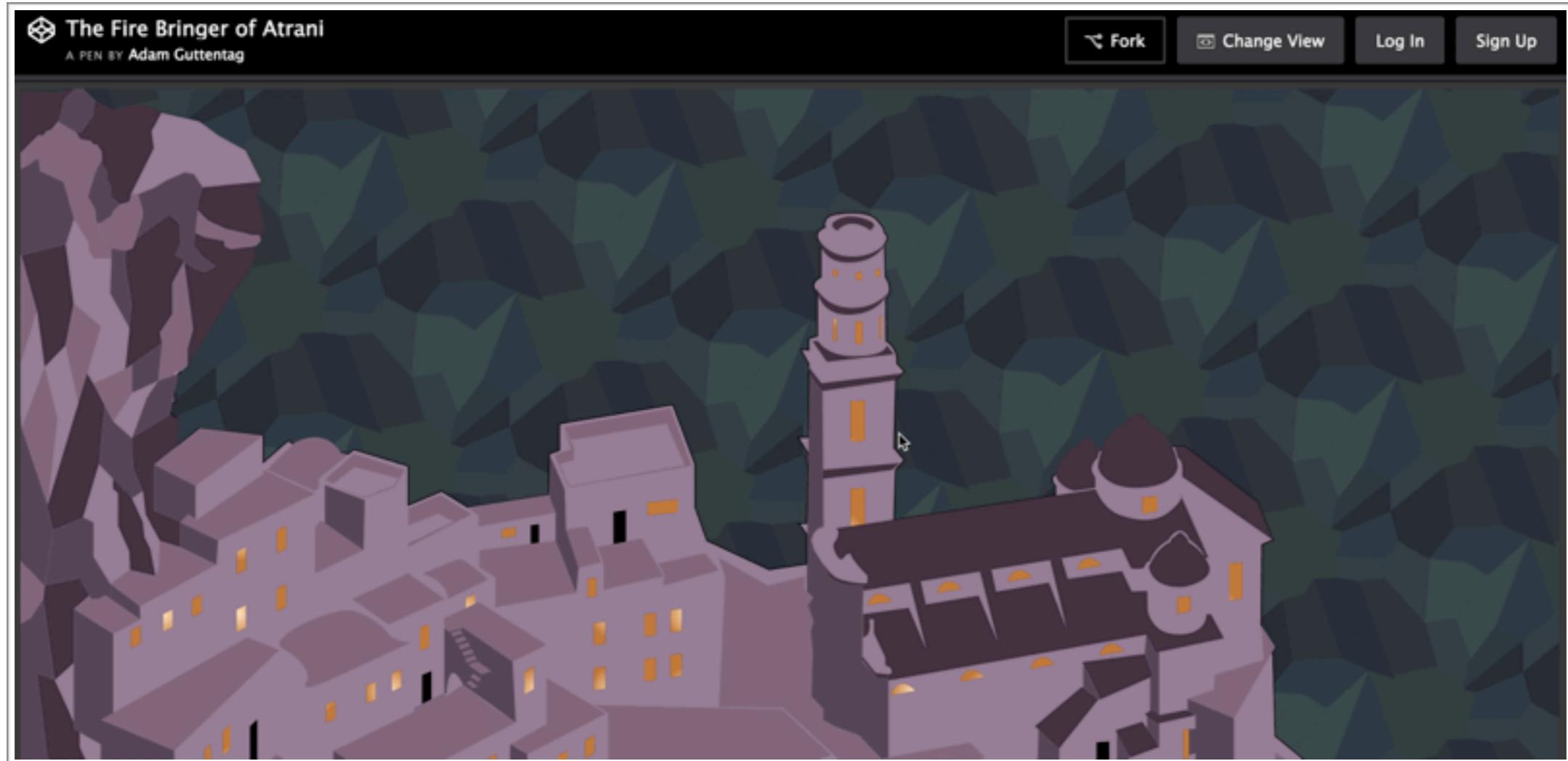
[Start using the app](#) [See examples](#)

Google Chrome Mozilla Firefox Opera Internet Explorer Safari

<http://tridiv.com/>

Evolución de HTML

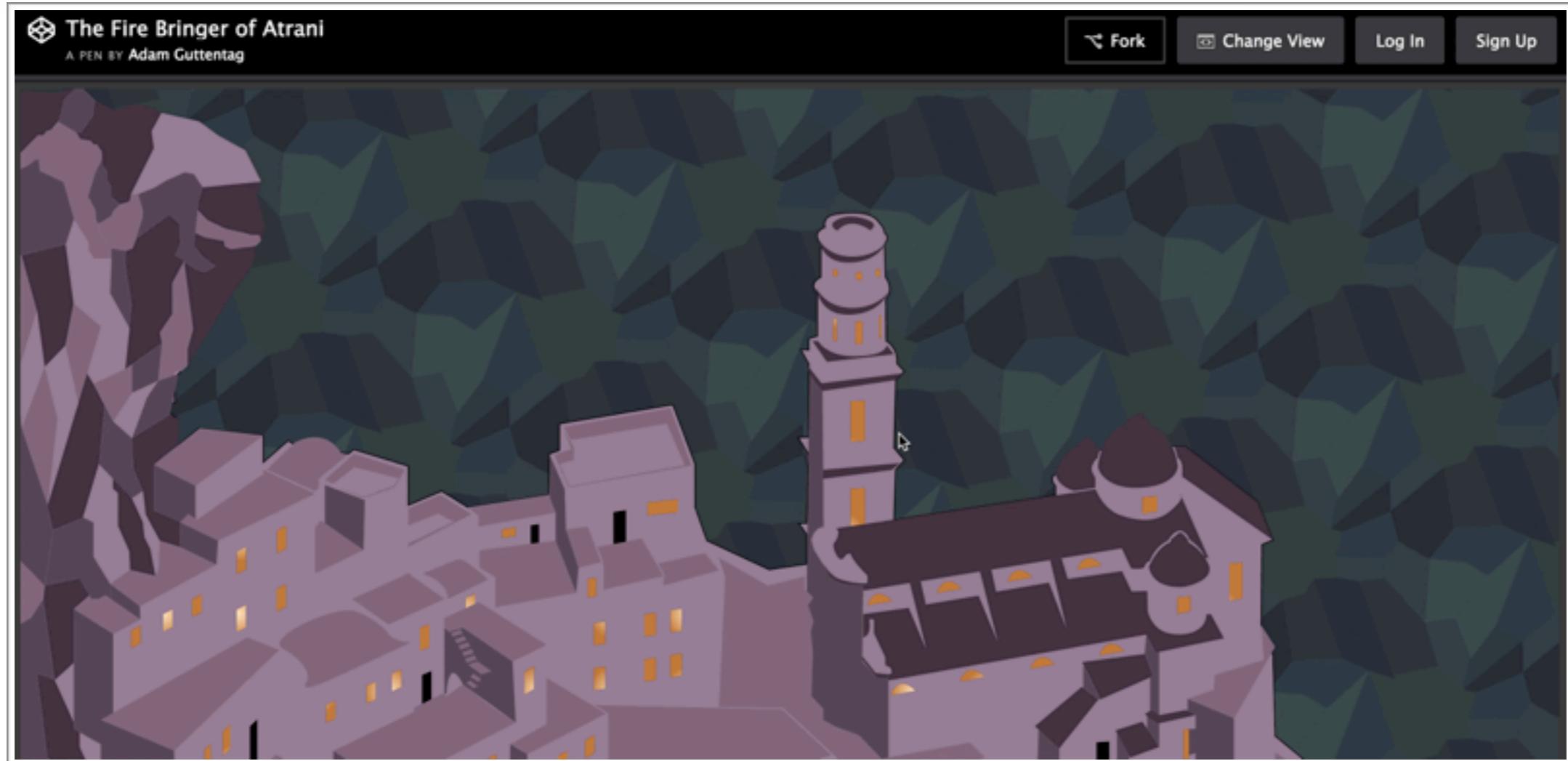
HTML5: multimedia sin el uso de plugins



<https://codepen.io/guttentag/full/tonFI/>

Evolución de HTML

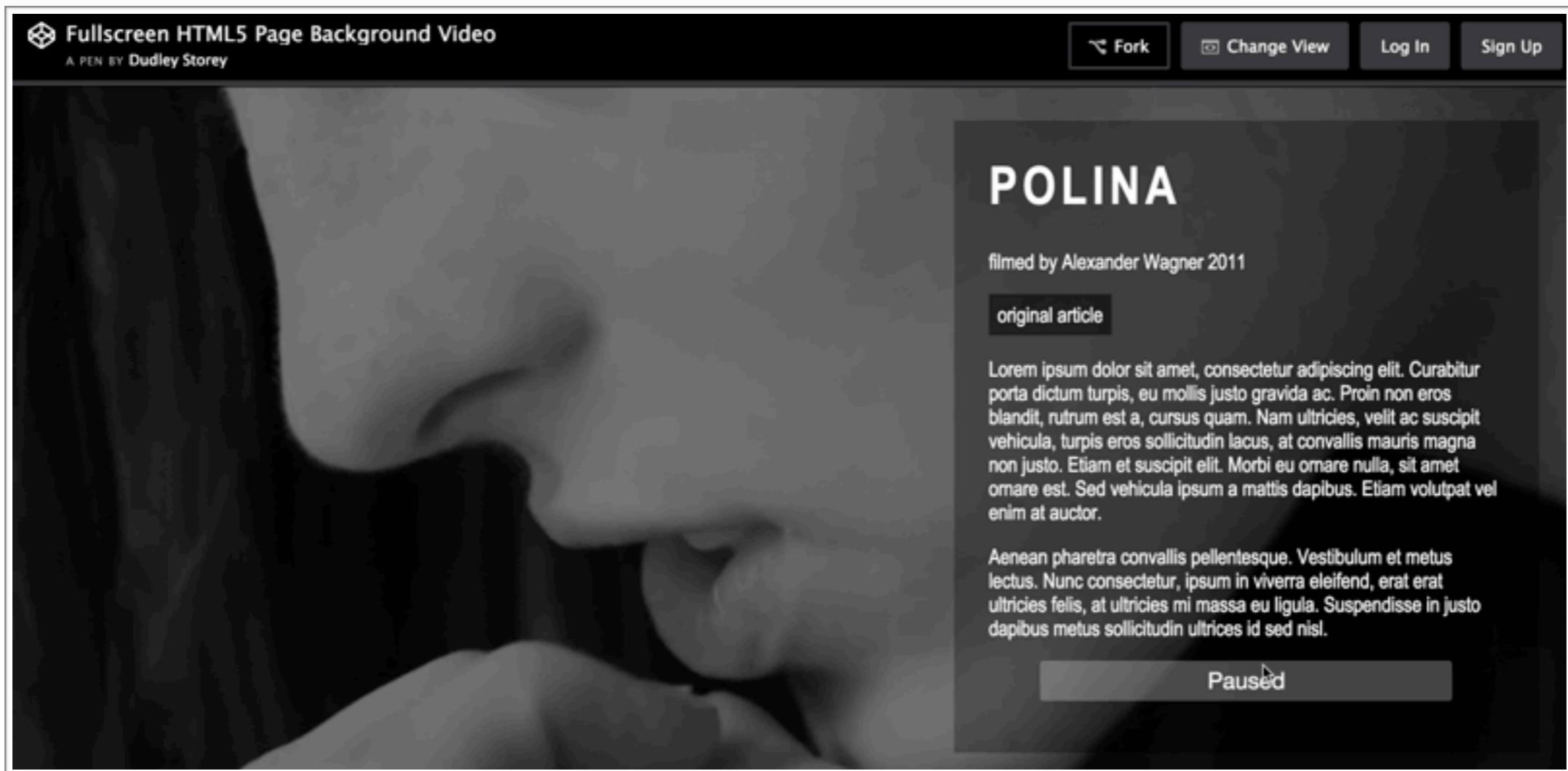
HTML5: multimedia sin el uso de plugins



<https://codepen.io/guttentag/full/tonFI/>

Evolución de HTML

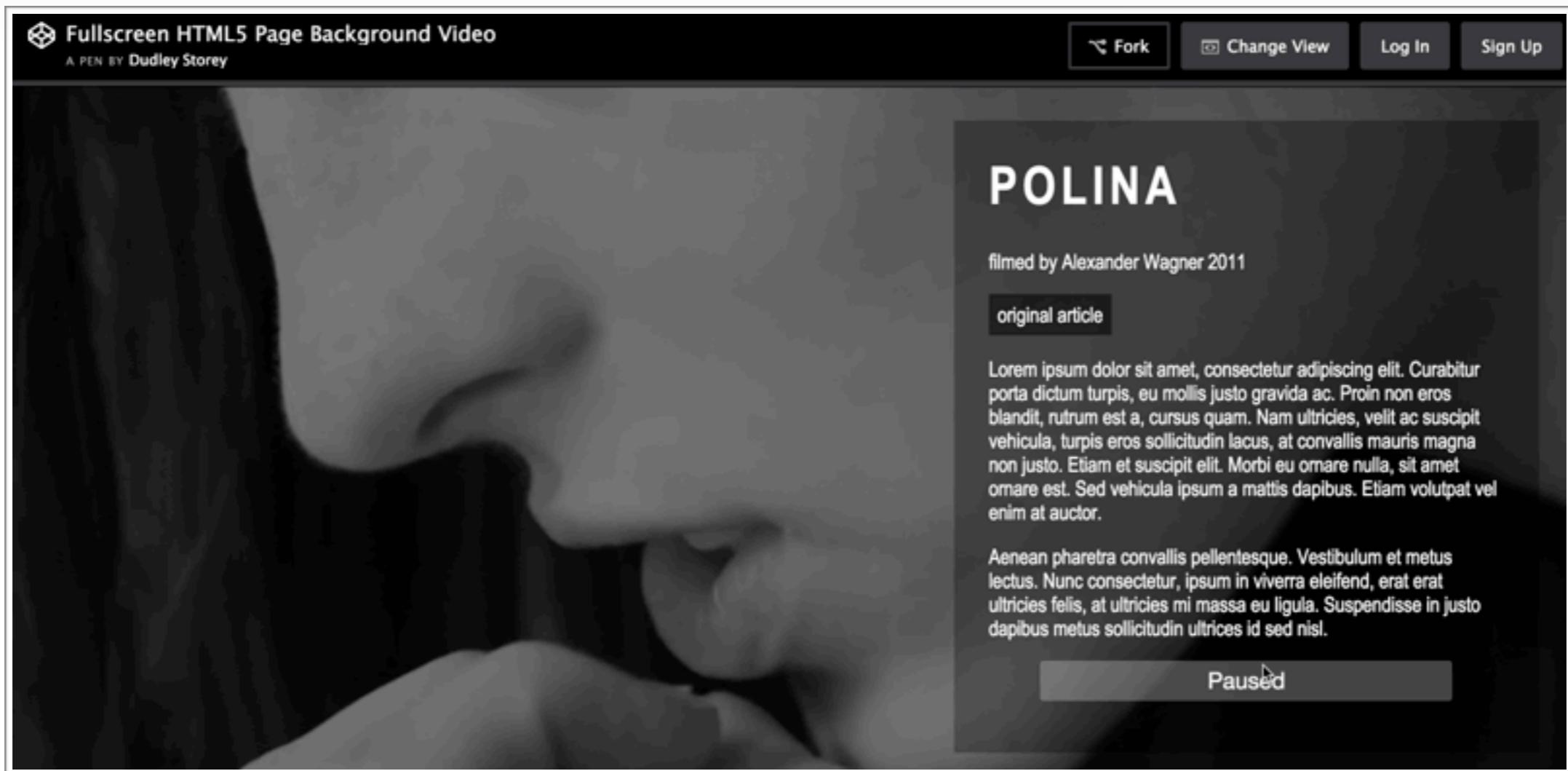
HTML5: multimedia sin el uso de plugins



<https://codepen.io/dudleystorey/full/knqyK/>

Evolución de HTML

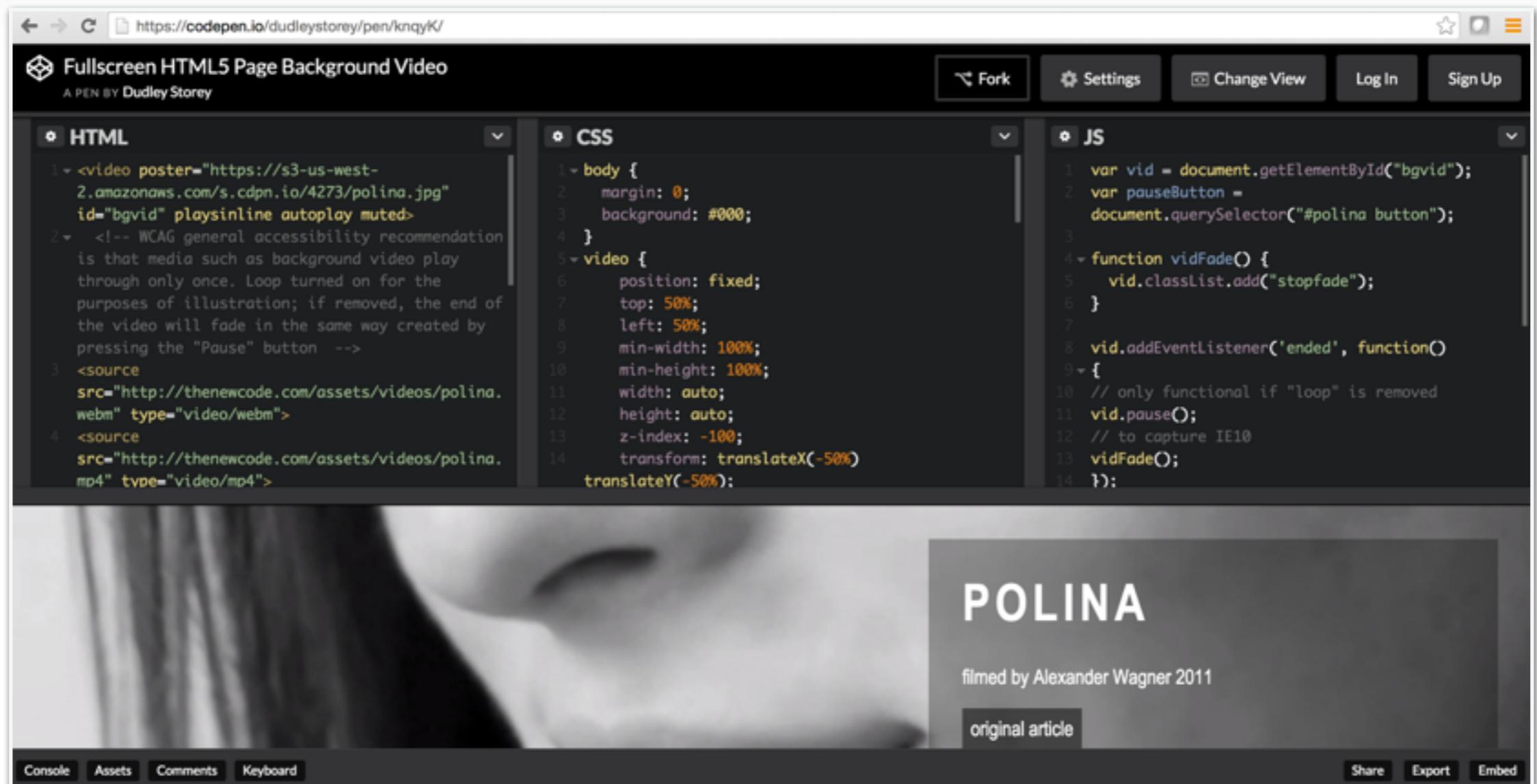
HTML5: multimedia sin el uso de plugins



<https://codepen.io/dudleystorey/full/knqyK/>

Evolución de HTML

HTML5: multimedia sin el uso de plugins



The screenshot shows a CodePen interface with the following details:

- Title:** Fullscreen HTML5 Page Background Video
- Author:** A PEN BY Dudley Storey
- Code Sections:** HTML, CSS, JS
- HTML:**

```
1 <video poster="https://s3-us-west-2.amazonaws.com/s.cdpn.io/4273/polina.jpg"
  id="bgvid" playsinline autoplay muted>
2 <!-- WCAG general accessibility recommendation
is that media such as background video play
through only once. Loop turned on for the
purposes of illustration; if removed, the end of
the video will fade in the same way created by
pressing the "Pause" button -->
3 <source
  src="http://thenewcode.com/assets/videos/polina.
  webm" type="video/webm">
4 <source
  src="http://thenewcode.com/assets/videos/polina.
  mp4" type="video/mp4">
```
- CSS:**

```
1 body {
2   margin: 0;
3   background: #000;
4 }
5 video {
6   position: fixed;
7   top: 50%;
8   left: 50%;
9   min-width: 100%;
10 min-height: 100%;
11 width: auto;
12 height: auto;
13 z-index: -100;
14 transform: translateX(-50%)
           translateY(-50%);
```
- JS:**

```
1 var vid = document.getElementById("bgvid");
2 var pauseButton =
  document.querySelector("#polina button");
3
4 function vidFade() {
5   vid.classList.add("stopfade");
6 }
7
8 vid.addEventListener('ended', function() {
9   //
10 // only functional if "loop" is removed
11 vid.pause();
12 // to capture IE10
13 vidFade();
14});
```

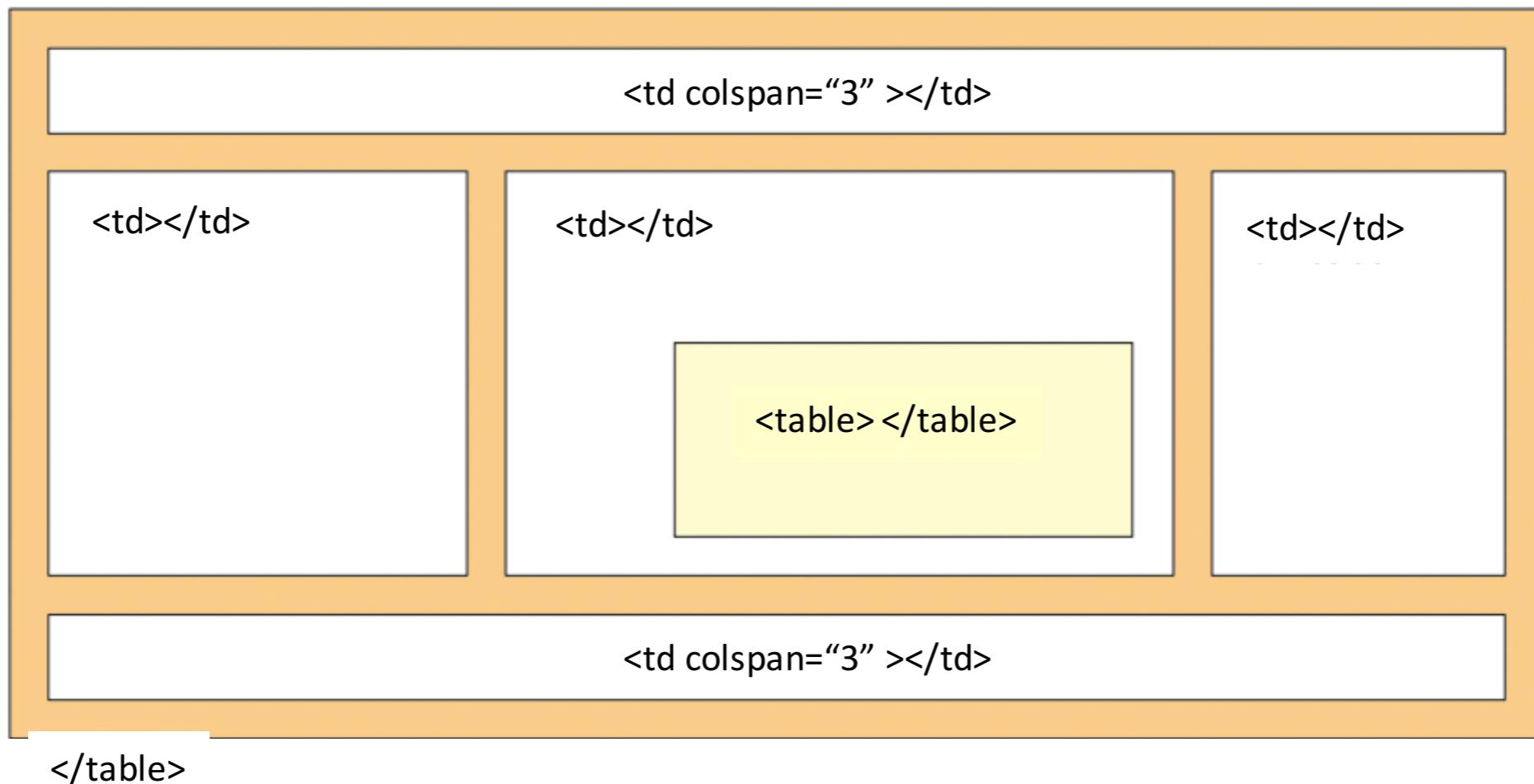
The preview window shows a black and white background video of a woman's face. Overlaid on the bottom right is a dark gray box containing the word "POLINA" in large white capital letters, with smaller text below it reading "filmed by Alexander Wagner 2011" and a link "original article".

<https://codepen.io/dudleystorey/full/knqyK/>

HTML 3.2

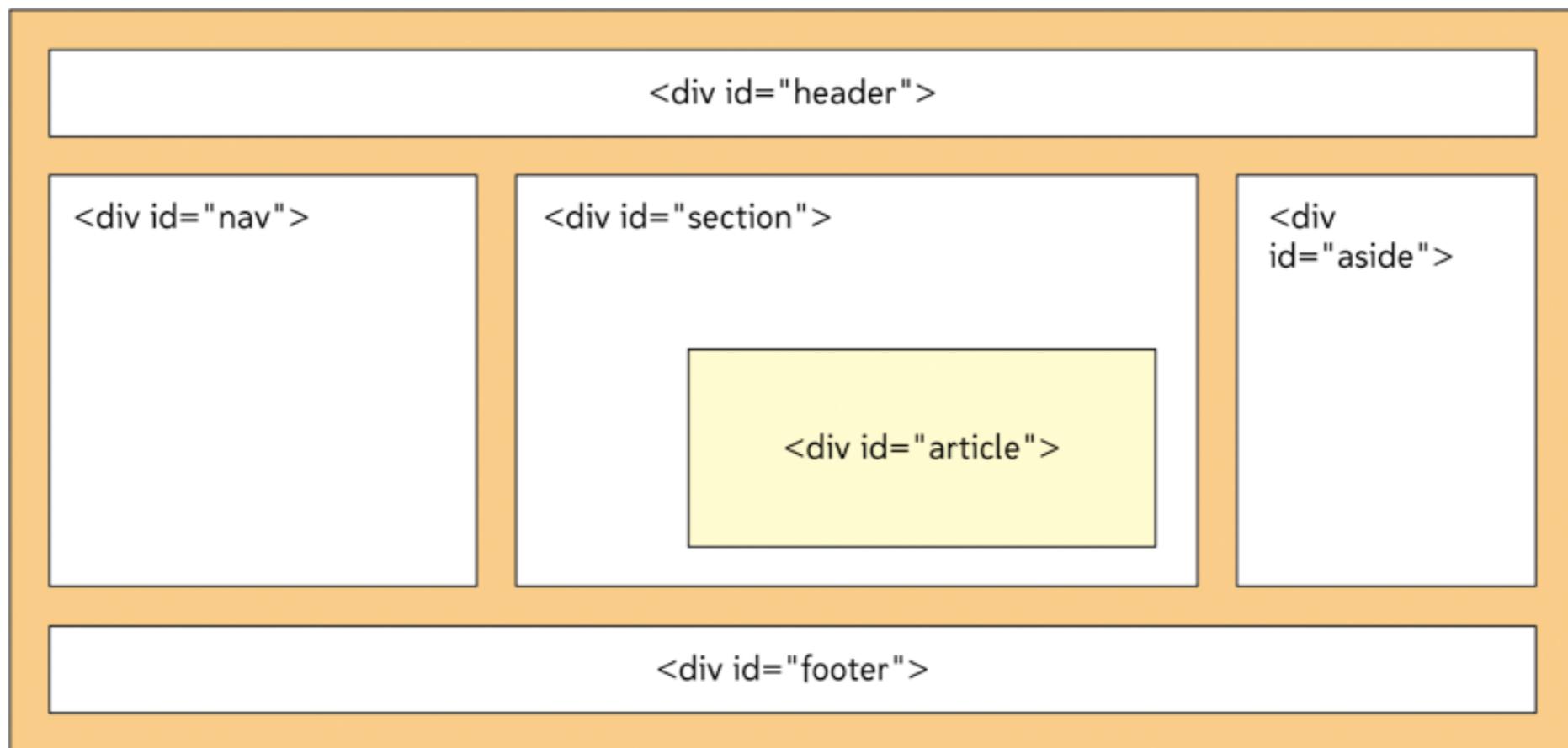
Layout basado en tablas

```
<table>
```



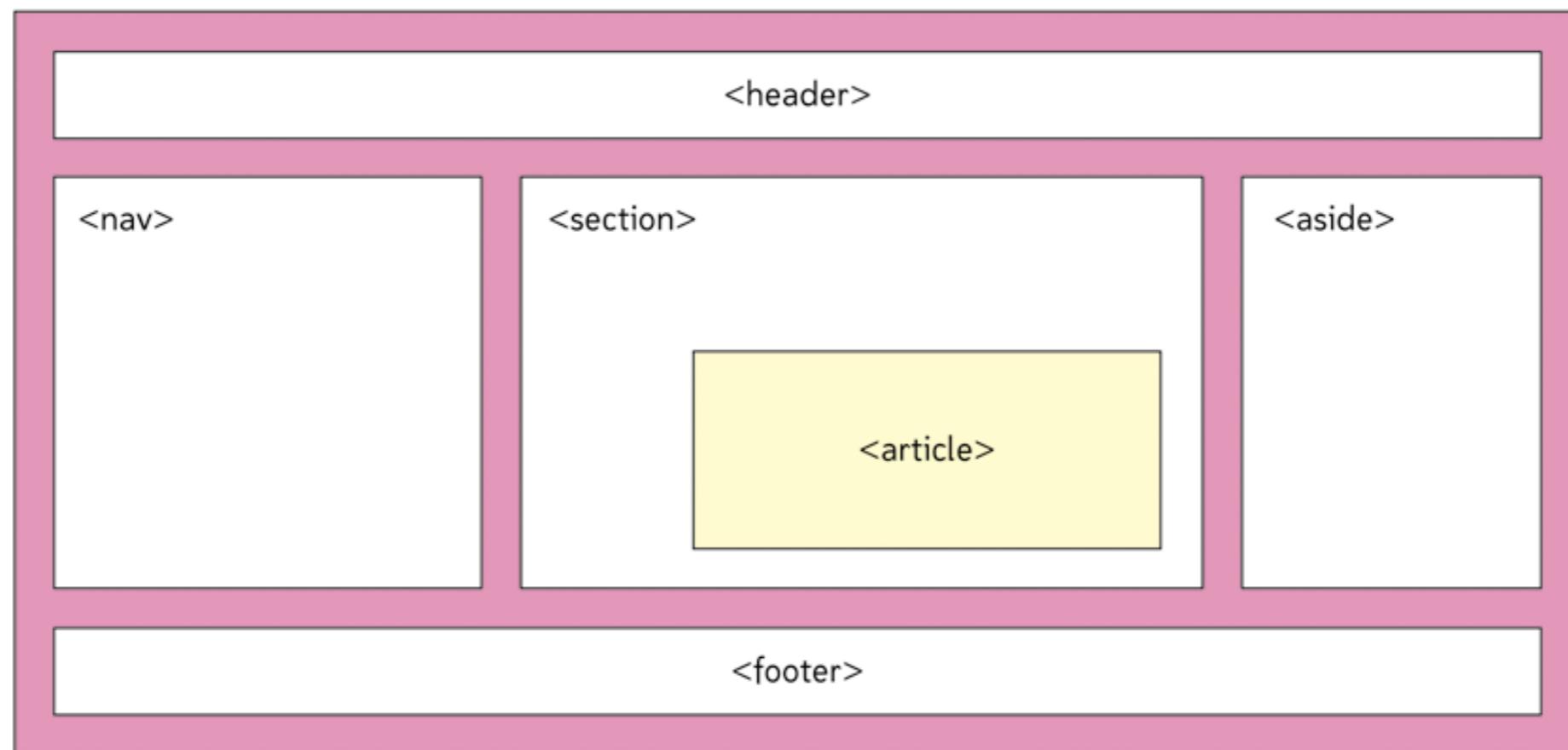
HTML 4.01

Layout basado en divs



HTML 5

Tags con mas semántica



HTML 5

Ya el objetivo no es
(solo) mostrar hiper-textos;
el objetivo es permitir la creación de
experiencias e interfaces de usuario

La WHATWG trabajó en HTML5 para la creación de aplicaciones
Tendencias: HTML semántico, CSS para la visualización, no uso de plugins externos

CSS: Fuentes para estilos

**Reglas CSS
(externas o internas)**

Declaración en línea

Atributos visuales (HTML)

```
p {color: green}
```

```
<p style="color:green">
```

```
<p bgcolor="blue">
```

HTML + CSS

**HTML: Elementos y distribución
CSS: atributos visuales**



HTML + CSS

<h1>From Garden to Plate</h1>

<p>A <i>potager</i> is a French term for
an ornamental vegetable or kitchen
garden...</p>

<h2>What to Plant</h2>

<p>Plants are chosen as much for their
functionality as for their color and
form...</p>

HTML + CSS

From Garden to Plate

A *potager* is a French term for an ornamental vegetable or kitchen garden. Often flowers (edible and non-edible) and herbs are planted with the vegetables to enhance the garden's beauty. The goal is to make the function of providing food aesthetically pleasing.

What to Plant

Plants are chosen as much for their functionality as for their color and form. Many are trained to grow upward. A well-designed potager can provide food, cut flowers and herbs for the home with very little maintenance. Potagers can disguise their function of providing for a home in a wide array of forms - from the carefree style of the cottage garden to the formality of a knot garden.

HTML + CSS

```
body {  
    font-family: Arial, Verdana, sans-serif; }  
  
h1, h2 {  
    color: #ee3e80; }  
  
p {  
    color: #665544; }
```

HTML + CSS

From Garden to Plate

A *potager* is a French term for an ornamental vegetable or kitchen garden. Often flowers (edible and non-edible) and herbs are planted with the vegetables to enhance the garden's beauty. The goal is to make the function of providing food aesthetically pleasing.

What to Plant

Plants are chosen as much for their functionality as for their color and form. Many are trained to grow upward. A well-designed potager can provide food, cut flowers and herbs for the home with very little maintenance. Potagers can disguise their function of providing for a home in a wide array of forms - from the carefree style of the cottage garden to the formality of a knot garden.

CSS: Fuentes para estilos

```
<html>
  <head>
    <title>Using External CSS</title>
    <link href="css/styles.css"
      type="text/css"
      rel="stylesheet">
  </head>
  <body>
    <h1>Potatoes</h1>
    <p>There are dozens of...</p>
  </body>
</html>
```

CSS: Fuentes para estilos

```
<html>
  <head>
    <title>Using External CSS</title>
    <link href="css/styles.css"
          type="text/css"
          rel="stylesheet">
  </head>
  <body>
    <h1>Potatoes</h1>
    <p>There are dozens of...</p>
  </body>
</html>
```

CSS: Fuentes para estilos

```
<html>
  <head>
    <title>Using External CSS</title>
    <link href="css/styles.css"
      type="text/css"
      rel="stylesheet">
  </head>
  <body>
    <h1>Potatoes</h1>
    <p>There are dozens of...</p>
  </body>
</html>
```

CSS: Fuentes para estilos

```
<head>
  <title>Using Internal CSS</title>
  <style type="text/css">
    body {
      font-family: arial;
      background-color: #rgb(185,179,175);}
    h1 {
      color: rgb(255,255,255);}
  </style>
</head>
```

CSS: Reglas y selectores

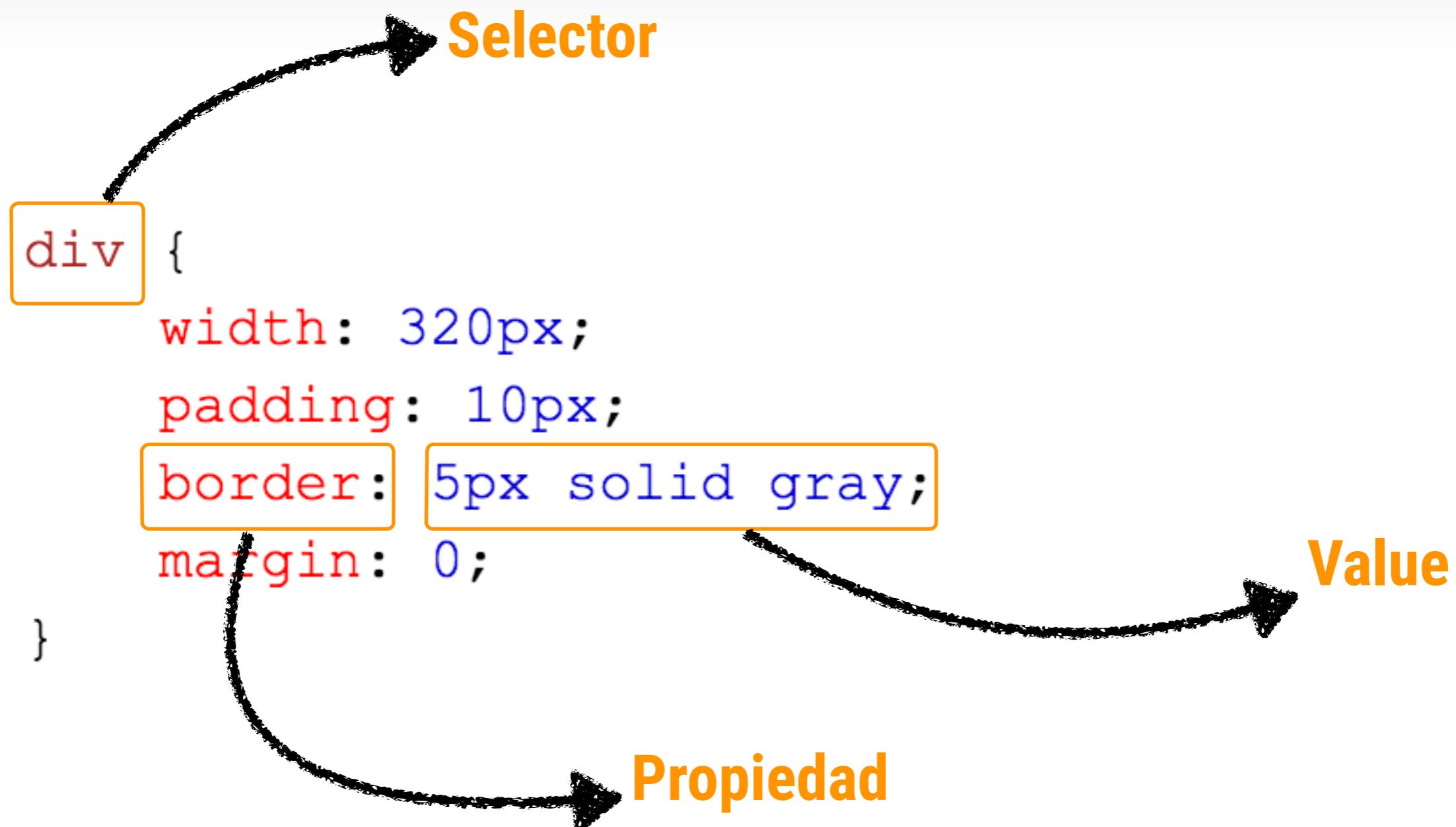
```
div {  
    width: 320px;  
    padding: 10px;  
    border: 5px solid gray;  
    margin: 0;  
}
```

CSS: Reglas y selectores

Regla CSS

```
div {  
    width: 320px;  
    padding: 10px;  
    border: 5px solid gray;  
    margin: 0;  
}
```

CSS: Reglas y selectores



CSS: Selectores

Selector por nombre (tag)

```
div {  
    width: 320px;  
    padding: 10px;  
    border: 5px solid gray;  
    margin: 0;  
}
```

Selector por id

```
#para1 {  
    text-align: center;  
    color: red;  
}
```

Selector por clase

```
.center {  
    text-align: center;  
    color: red;  
}
```

Combinado

```
p.center {  
    text-align: center;  
    color: red;  
}
```

CSS: Selectores

```
div {  
    width: 320px;  
    padding: 10px;  
    border: 5px solid gray;  
    margin: 0;  
}
```

<p class="center">Red and center-aligned paragraph.</p>

```
#paral {  
    text-align: center;  
    color: red;  
}
```

<div>And me!</div>

```
.center {  
    text-align: center;  
    color: red;  
}
```

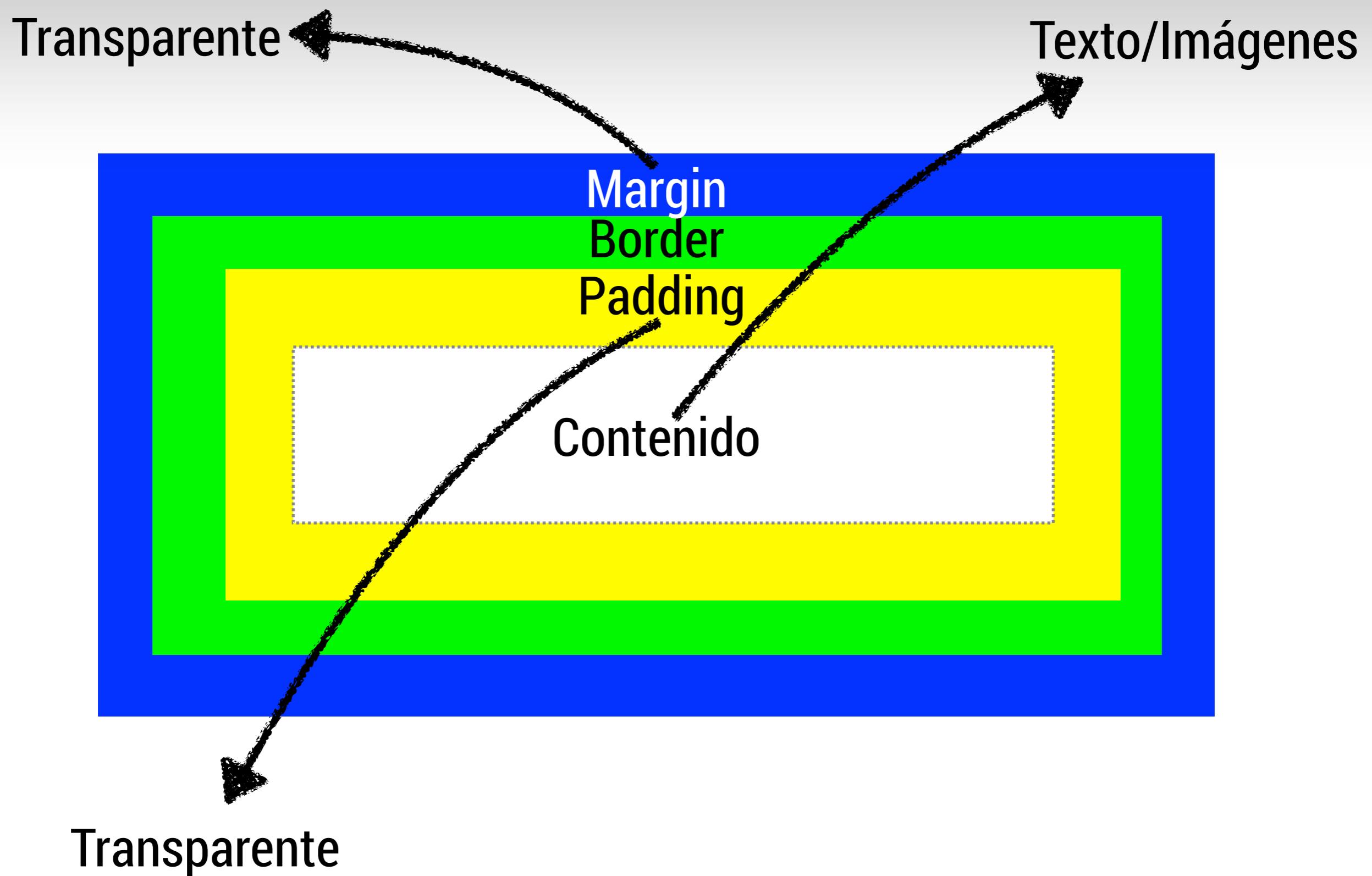
<p class="center large">This paragraph refers to two classes.</p>

```
p.center {  
    text-align: center;  
    color: red;  
}
```

<h1 class="center">Red and center-aligned heading</h1>

<p id="paral">Me too!</p>

CSS: Modelo de cajas



CSS: Modelo de cajas

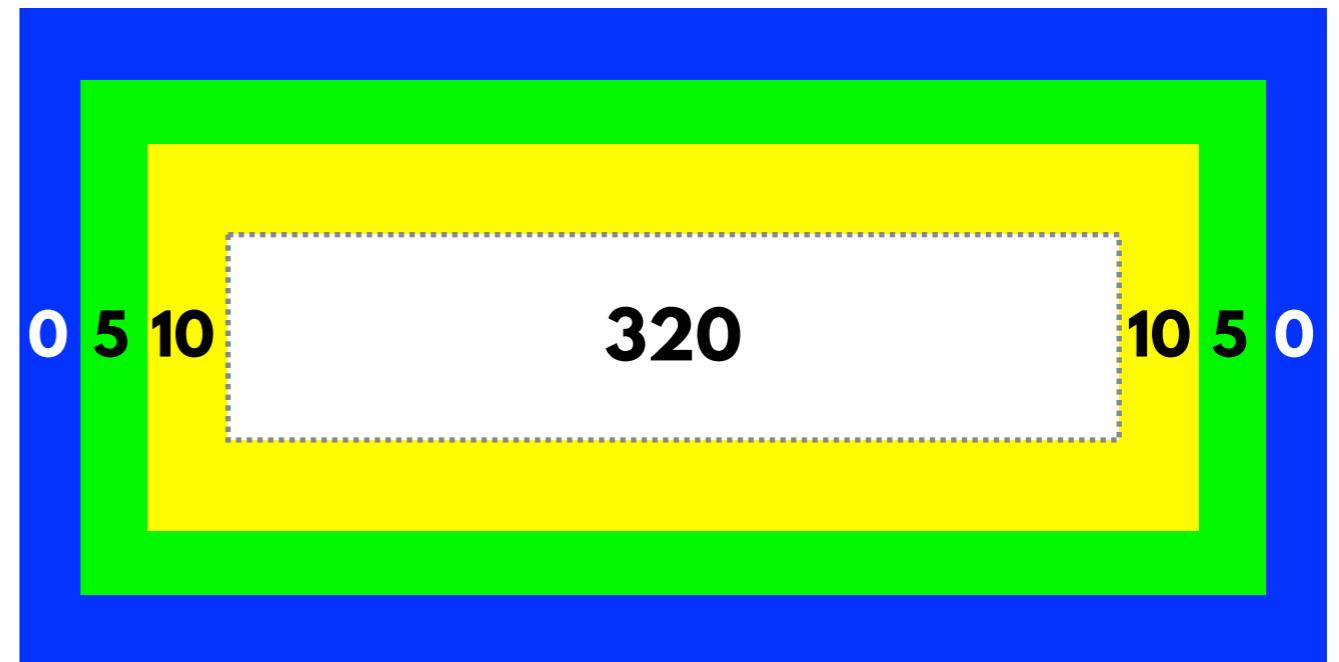
```
div {  
    width: 320px;  
    padding: 10px;  
    border: 5px solid gray;  
    margin: 0;  
}
```

Cuál es el ancho final del div ?

CSS: Modelo de cajas

Cuál es el ancho final del div ? **350**

```
div {  
    width: 320px;  
    padding: 10px;  
    border: 5px solid gray;  
    margin: 0;  
}
```

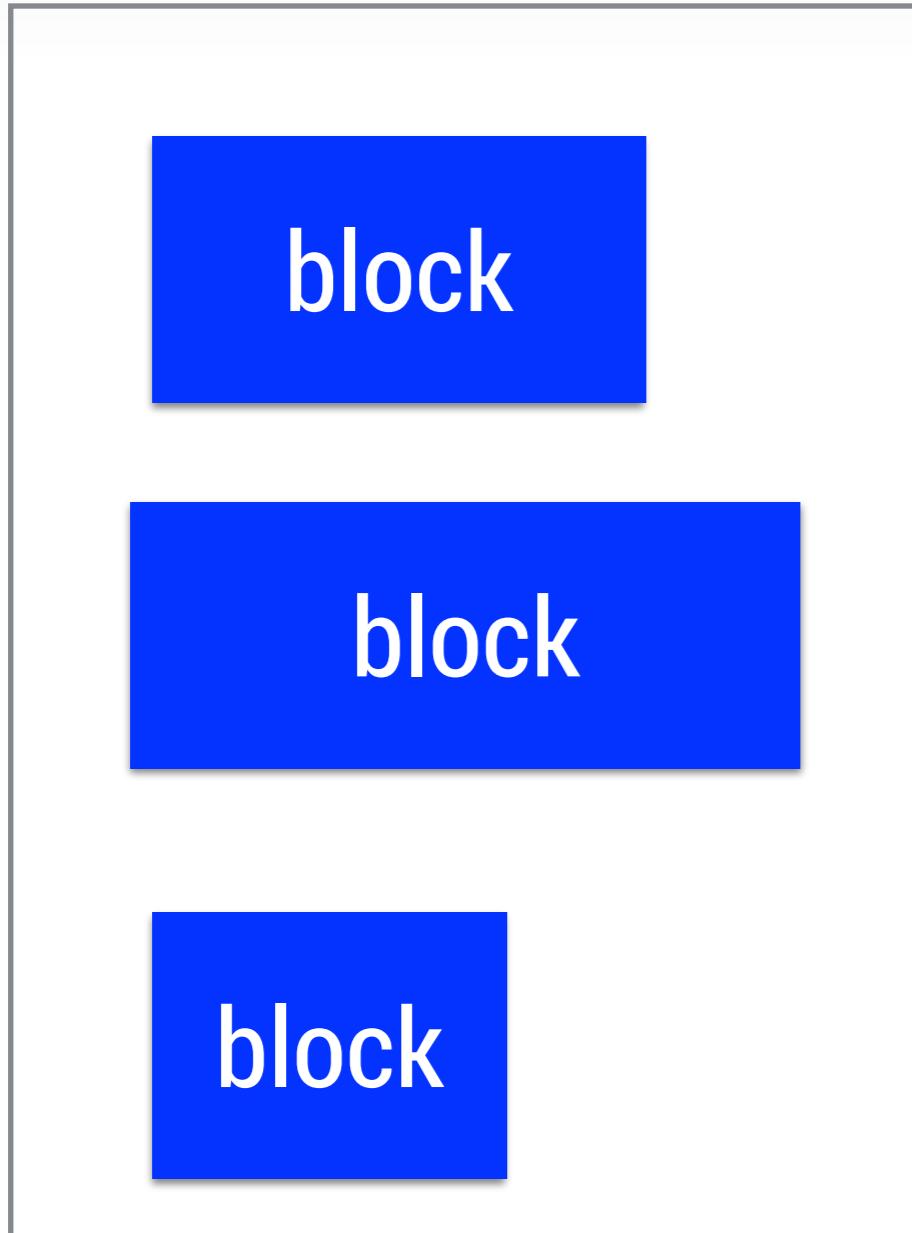


CSS: La propiedad display

- Los elementos visuales HTML en el árbol render son un área rectangular
- El flujo del layout depende de la propiedad **display** que se puede controlar con CSS

```
span { display: block; } li { display: inline; }
```

CSS: La propiedad display



`display: block;`

- Cada elemento tiene su propio rectángulo (bloque)
- Los bloques se organizan de forma vertical

CSS: La propiedad display



`display: inline;`

- Los elementos de tipo inline se organizan horizontalmente dentro de un bloque contenedor
- El alto del bloque es el mismo del elemento inline mas alto
- Los elementos se organizan en mas de una fila cuando el ancho no es suficiente

CSS: La propiedad display

```
<!DOCTYPE html>
<html>
<head>
<style>
span {
    border-style: solid;
    border-width: 3px;
    border-color: red;

    display: block;
}
</style>
</head>
<body>

<span>Prueba propiedad display....</span>

<span>cambiando de block a
inline</span>

</body>
</html>
```

Prueba propiedad display....

cambiando de block a inline

CSS: La propiedad display

```
<!DOCTYPE html>
<html>
<head>
<style>
span {
    border-style: solid;
    border-width: 3px;
    border-color: red;

    display: inline;
}
</style>
</head>
<body>

<span>Prueba propiedad display....</span>

<span>cambiando de block a
inline</span>

</body>
</html>
```

Prueba propiedad display.... cambiando de block a inline

CSS: La propiedad display

```
<!DOCTYPE html>
<html>
<head>
<style>
span {
    border-style: solid;
    border-width: 3px;
    border-color: red;
    display: none;
}
</style>
</head>
<body>

<span>Prueba propiedad display....</span>
<span>cambiando de block a inline</span>

</body>
</html>
```

CSS: La propiedad display

Bloques

<div>
<h1> - <h6>
<p>
<form>
<header>
<footer>
<section>

Tipo inline

<a>

CSS: La propiedad position

Absolute

- El elemento se excluye del flujo normal
- La posición es absoluta, pero relativa al contenedor

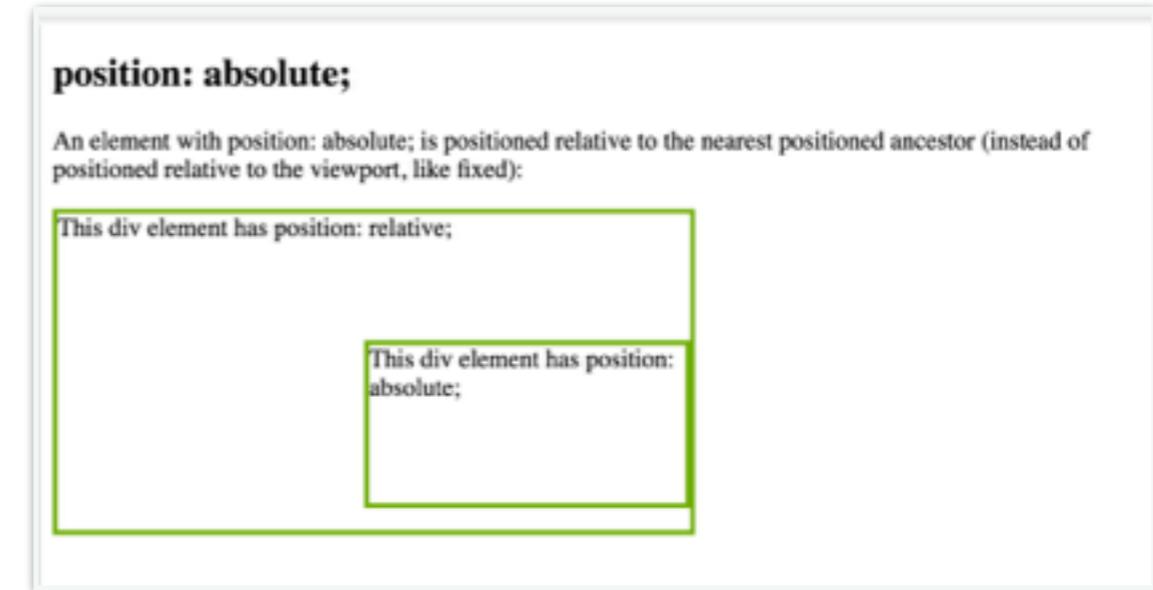
```
div.absolute {  
    position: absolute;  
    top: 80px;  
    right: 0;  
    width: 200px;  
    height: 100px;  
    border: 3px solid #73AD21;  
}
```

position: absolute;

An element with position: absolute; is positioned relative to the nearest positioned ancestor (instead of positioned relative to the viewport, like fixed):

This div element has position: relative;

This div element has position: absolute;



CSS: La propiedad position

Fijo

- El elemento se excluye del flujo normal
- La posición es absoluta, pero relativa al viewport

```
div.fixed {  
    position: fixed;  
    top: 80px;  
    right: 0;  
    width: 200px;  
    height: 100px;  
    border: 3px solid #73AD21;  
}
```

position: fixed;

An element with position: absolute; is positioned relative to the nearest positioned ancestor (instead of positioned relative to the viewport, like fixed):

This div element has position: relative;

This div element has position: fixed;

CSS: La propiedad position

Relativo

- La posición es relativa a su posición normal, es decir los atributos de posición, mueven el elemento usando como referencia la posición normal

```
div.relative {  
    position: relative;  
    left: 30px;  
    border: 3px solid #73AD21;  
}
```

position: relative;

An element with position: relative; is positioned relative to its normal position:

This div element has position: relative;

CSS: La propiedad position

```
<head>
<style>
div.relative {
    position: relative;
    width: 400px;
    height: 200px;
    border: 3px solid #73AD21;
}

div.absolute {
    position: absolute;
    top: 80px;
    right: 0;
    width: 200px;
    height: 100px;
    border: 3px solid #73AD21;
}
</style>
</head>
<body>

<h2>position: absolute;</h2>

<p>An element with position: absolute; is positioned relative to the nearest positioned ancestor (instead of positioned relative to the viewport, like fixed):</p>

<div class="relative">This div element has position: relative;
    <div class="absolute">This div element has position: absolute;</div>
</div>

</body>
</html>
```

position: absolute;

An element with position: absolute; is positioned relative to the nearest positioned ancestor (instead of positioned relative to the viewport, like fixed):

This div element has position: relative;

This div element has position: absolute;

CSS: Plantillas

JAVASCRIPT SQL PHP BOOTSTRAP TUTORIALS ▾ REFERENCES ▾

W3.CSS Web Site Templates

We have created some responsive templates with [W3.CSS](#).

You are free to modify, save, share, use or do whatever you want with them.

Band Template

The image shows three devices displaying a responsive website template for a band. The template features a dark header with navigation links (HOME, BAND, TOUR, CONTACT, MARCH). The main content area includes a large image of three people, a caption 'Los Angeles', and a sub-caption 'We had the best time playing at Venice Beach!'. Below this is a section titled 'THE BAND' with a 'See more' link. At the bottom, there is a footer with a copyright notice and a link to 'View Source'. The devices are arranged in a staggered layout, with the monitor on the left, the laptop in the center, and the smartphone on the right.

Demo Try it Yourself

http://www.w3schools.com/css/css_rwd_templates.asp

Frameworks

Bootstrap Getting started CSS Components JavaScript Customize Themes Expo Blog



Bootstrap is the most popular HTML, CSS, and JS framework for developing responsive, mobile first projects on the web.

[Download Bootstrap](#)

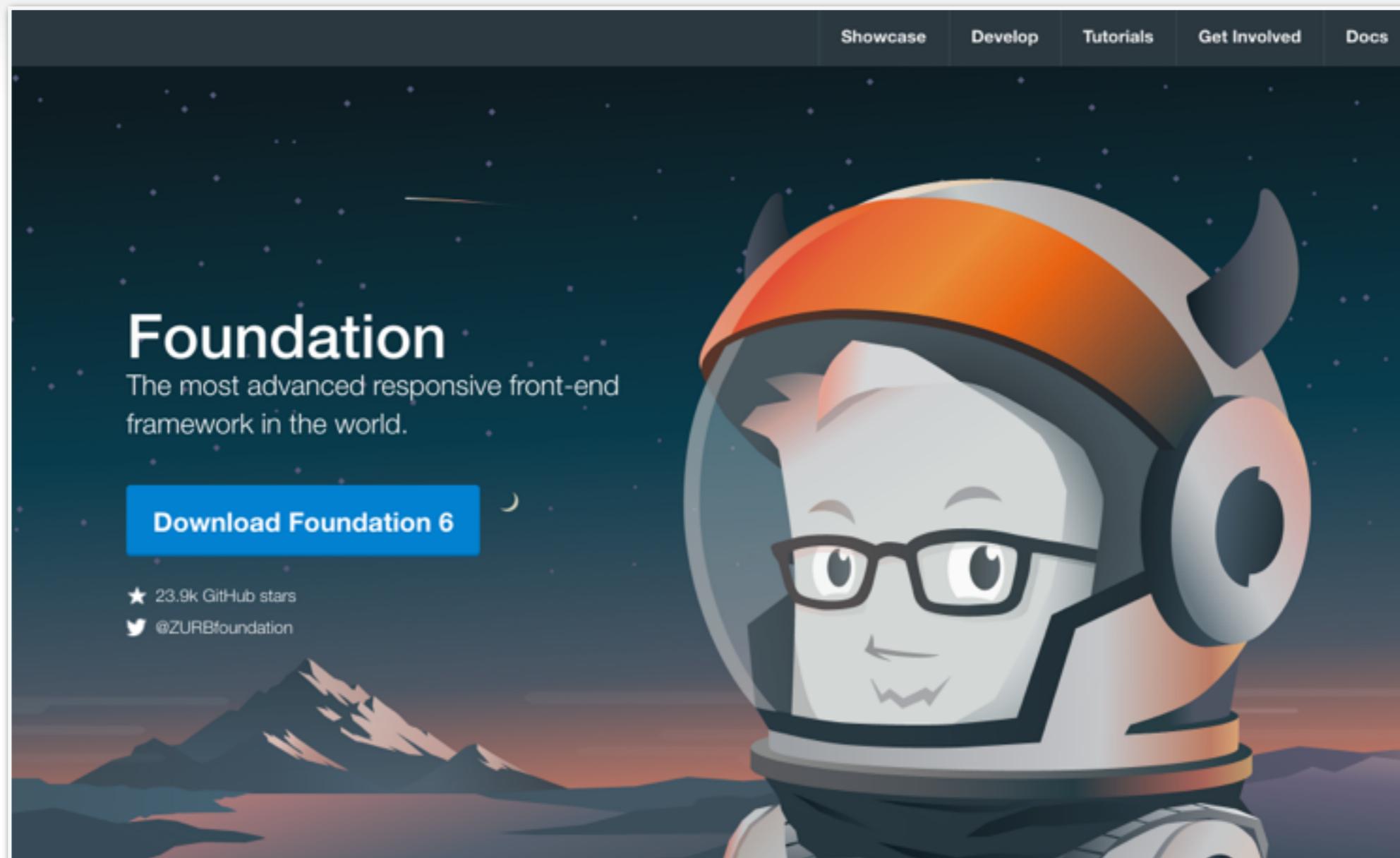
Currently v3.3.7



See why the world's best developers choose Squarespace. Start your free trial.

<http://getbootstrap.com/>

Frameworks



<http://foundation.zurb.com/>

Herramientas para validación

 **Markup Validation Service**
Check the markup (HTML, XHTML, ...) of Web documents

Validate by URI Validate by File Upload Validate by Direct Input

Validate by URI

Validate a document online:

Address:

▶ More Options

Check

This validator checks the [markup validity](#) of Web documents in HTML, XHTML, SMIL, MathML, etc. If you wish to validate specific content such as [RSS/Atom feeds](#) or [CSS stylesheets](#), [MobileOK content](#), or to [find broken links](#), there are [other validators and tools](#) available. As an alternative you can also try our [non-DTD-based validator](#).

 The W3C validators are hosted on server technology donated by HP, and supported by community donations.
[Donate](#) and help us build better tools for a better web.

5771
[Flattr](#)

[Home](#) [About...](#) [News](#) [Docs](#) [Help & FAQ](#) [Feedback](#) [Contribute](#)

This service runs the W3C Markup Validator, [y1.3+hg](#).
COPYRIGHT © 1994-2013 W3C® (MIT, ERCIM, KEIO, BEIHANG). ALL RIGHTS RESERVED. W3C LIABILITY, TRADEMARK, DOCUMENT USE AND SOFTWARE LICENSING RULES APPLY. YOUR INTERACTIONS WITH THIS SITE ARE IN ACCORDANCE WITH OUR PUBLIC AND MEMBER PRIVACY STATEMENTS.

 [VALIDATOR](#)

<http://validator.w3.org/>

Herramientas para validación

Nu Html Checker

This tool is an ongoing experiment in better HTML checking, and its behavior remains subject to change

Showing results for <http://www.uniandes.edu.co>

Checker Input

Show source outline image report Options...

Check by address

Use the Message Filtering button below to hide/show particular messages, and to see total counts of errors and warnings.

Message Filtering

- Error** Saw <?. Probable cause: Attempt to use an XML processing instruction in HTML. (XML processing instructions are not supported in HTML.)
At line 1, column 2

```
<?xml version="1?
```
- Warning** Comments seen before doctype. Internet Explorer will go into the quirks mode.
From line 1, column 1; to line 1, column 38

```
<?xml version="1.0" encoding="utf-8"?><!DOCTYPE
```
- Error** Almost standards mode doctype. Expected e.g. <!DOCTYPE html>.
From line 1, column 39; to line 1, column 159

```
= "utf-8"?><!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd"><html>
```

<http://validator.w3.org/>

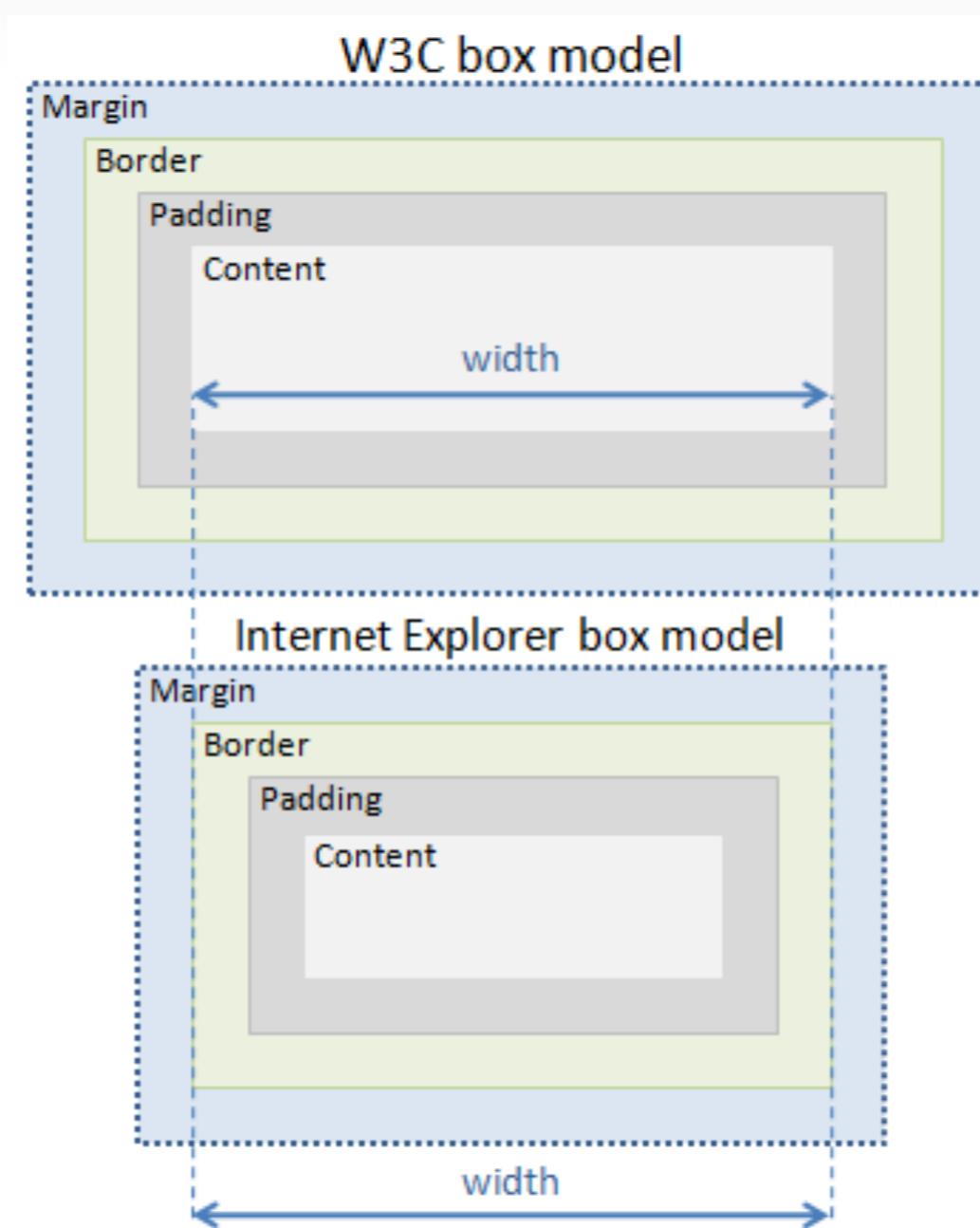
Problemas con navegadores

La existencia de multiples estándares y multiples proveedores de navegadores ha generado problemas de compatibilidad

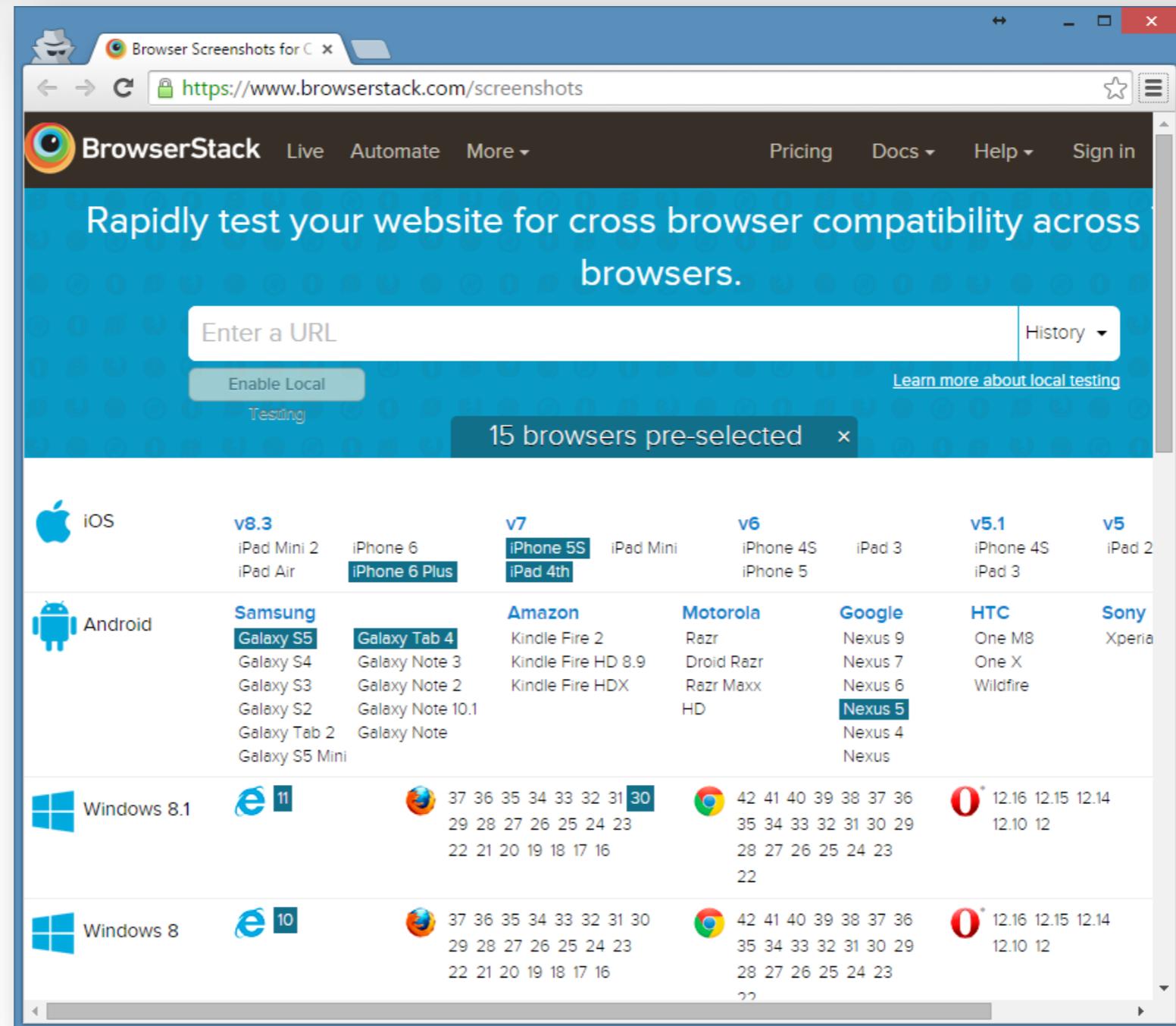
HTML 3.2 surgió para evitar versiones propietarias de HTML

Recientemente, El WHATWG ha trabajado con los diferentes proveedores para mantener un comportamiento consistente en HTML5

Problemas con navegadores



Pruebas de compatibilidad



Pruebas de compatibilidad

Ghostlab:

<http://vanamco.com/ghostlab/>

BrowserStack:

<http://www.browserstack.com/>

SuaceLabs:

<https://saucelabs.com/home>

CrossBrowserTesting:

<http://crossbrowsertesting.com/>

MogoTest:

<http://mogotest.com/>

Litmus:

<http://litmus.com/page-tests>

TestingBot:

<http://testingbot.com/>

Spoon:

<http://spoon.net/browsers/>

BrowserShots:

<http://browsershots.org/>

Browsera:

<http://www.browsera.com/>

IE Net Renderer:

<http://netrenderer.com/>