

HTML5 Semantic elements

Website Development 1

HTML5 semantic elements

- The need for semantic elements
- Structural/layout elements
- Figures and captions

The Need for Semantic Elements

- Give content on the page meaning and structure
- Semantics portray the value of content on a page, and are not just its style
- Semantic markup can be interpreted by tools for the visually impaired
- Search Engines can use semantic markup to better categorise and classify content
- Semantic markup can make site maintenance easier as new developers can quickly grasp the site structure
- Updating / restyling may be streamlined by using semantic elements

HTML5 semantic elements

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- Figures and captions

The HTML5 Semantic Elements

<header>

<nav>

<section>

<main>

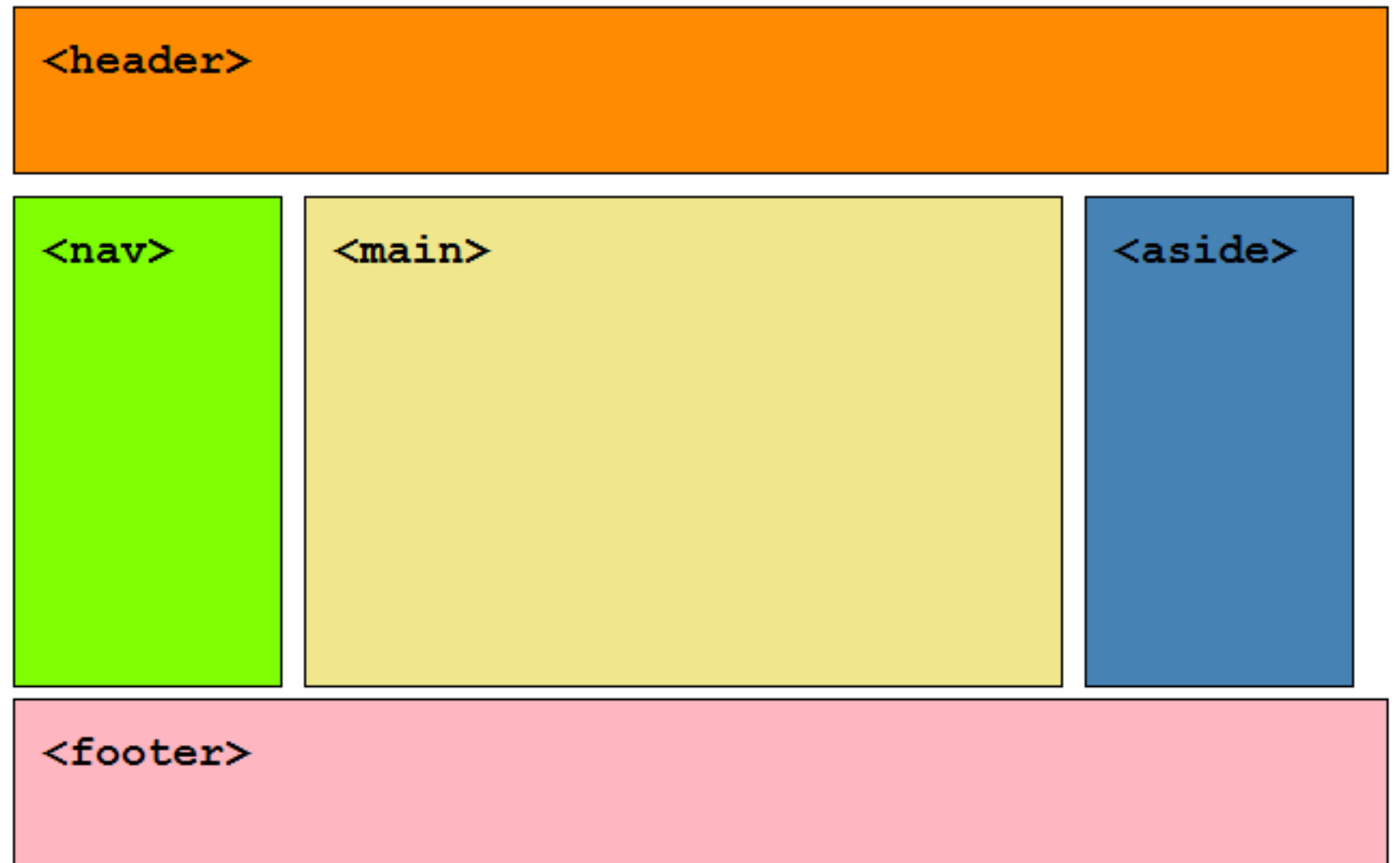
<article>

<aside>

<figcaption>

<figure>

<footer>



<nav>

```
<nav>
  <h1>Navigation</h1>
  <ul>
    <li><a href="articles.html">Index of all articles</a></li>
    <li><a href="today. html">Things sheeple need to wake up for today</a></li>
    <li><a href="successes. html">Sheeple we have managed to wake</a></li>
  </ul>
</nav>
```

The <nav> tag defines a set of navigation links.

Notice that NOT all links of a document should be inside a <nav> element. The <nav> element is intended only for major block of navigation links.

<main>

The <main> tag specifies the main content of a document.

It contains most of the unique content of a given webpage, for example, the video you want to watch, or the main story you're reading, or the map you want to view, or the news headlines, etc. This is the one part of the website that definitely will vary from page to page!

The content inside the <main> element should be unique to the document. It should not contain any content that is repeated across documents such as sidebars, navigation links, copyright information, site logos, and search forms.

```
<body>
<header role="banner">
[...]
</header>

<main id="content" class="group" role="main">
[...]
</main>

<footer role="contentinfo">
    [...]
</footer>
</body>
```

<article>

```
<article>
  <header>
    <h2><a href="https://example.com/short-note/">Short note on wearing shorts</a></h2>
    <p><a href="https://example.com/short-note/#comments">6 comments</a></p>
  </header>
  <p>
    A fellow traveller posed an interesting question: Why do you wear shorts rather than
    longs? The short answer is that I enjoy wearing shorts, the long answer is...
  </p>
  <p>
    <a href="https://example.com/short-note/">Continue reading: Short note on wearing
    shorts</a>
  </p>
</article>
```

<article> encloses a block of related content that makes sense on its own without the rest of the page. This could be:

- a magazine, newspaper, technical or scholarly article,
- an essay or report,
- a blog or other social media post.

<section>

<section> is similar to <article>, but it is more for grouping together a single part of the page that constitutes one single piece of functionality (e.g., a mini map, or a set of article headlines and summaries). It's considered best practice to begin each section with a heading; also note that you can break <article>s up into different <section>s, or <section>s up into different <article>s, depending on the context.

```
<article>
  <header>
    <h2>Apples</h2>
    <p>Tasty, delicious fruit!</p>
  </header>
  <p>The apple is the pomaceous fruit of the apple tree.</p>
  <section>
    <h3>Red Delicious</h3>
    <p>These bright red apples are the most common found in many
      supermarkets.</p>
  </section>
  <section>
    <h3>Granny Smith</h3>
    <p>These juicy, green apples make a great filling for apple
      pies.</p>
  </section>
</article>
```

<aside>

<aside> contains content that is not directly related to the main content but can provide additional information indirectly related to it (glossary entries, author biography, related links, etc.)

```
<aside>  
<h1>Switzerland</h1>  
<p>Switzerland, a land-locked country in the middle of  
geographic Europe, has not joined the geopolitical  
European Union, though it is a signatory to a number  
of European treaties.</p>  
</aside>
```

<header> & <footer>

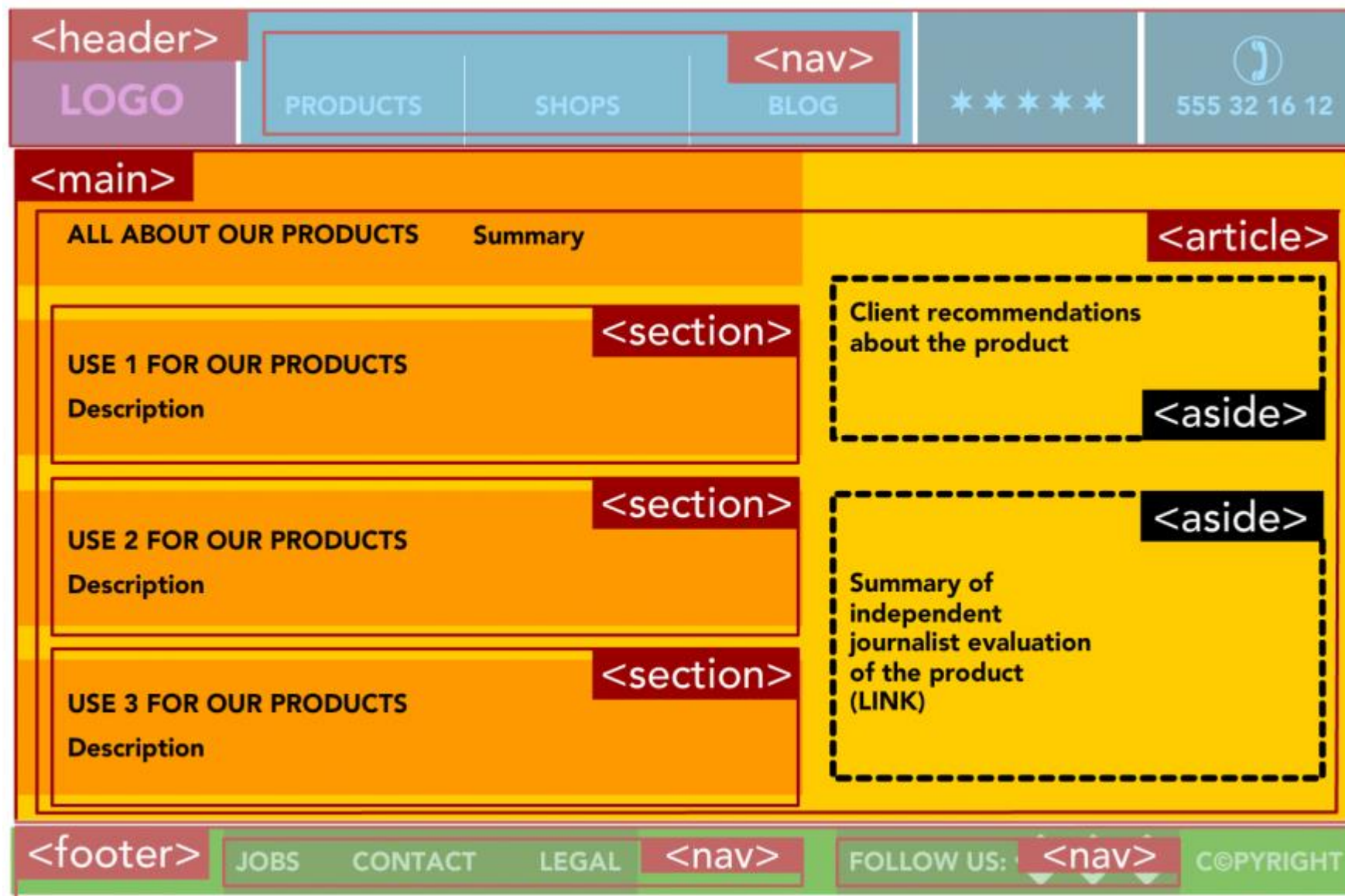
The <header> element represents introductory content for its nearest ancestor sectioning content or sectioning root element. A header typically contains a group of introductory or navigational aids.

The <footer> element represents a footer for its nearest ancestor sectioning content or sectioning root element. A footer typically contains information about its section such as who wrote it, links to related documents, copyright data, and the like...

```
<header>
  <p>Welcome to...</p>
  <h1>Voidwars!</h1>
</header>
```

```
<footer>
  <a href="..">Back to index...</a>
</footer>
```

HTML5 semantic elements



HTML5 semantic elements

Header

[HOME](#)[OUR TEAM](#)[PROJECTS](#)[CONTACT](#)

Article heading

Lorem ipsum dolor sit amet, consectetur adipisicing elit. Donec a diam lectus. Set sit amet ipsum mauris. Maecenas congue ligula as quam viverra nec consectetur ant hendrerit. Donec et mollis dolor. Praesent et diam eget libero egestas mattis sit amet vitae augue. Nam tincidunt congue enim, ut porta lorem lacinia consectetur.

subsection

Donec ut libero sed accu vehicula ultricies a non tortor. Lorem ipsum dolor sit amet, consectetur adipisicing elit. Aenean ut gravida lorem. Ut turpis felis, pulvinar a semper sed, adipiscing id dolor.

Pelentesque auctor nisi id magna consequat sagittis. Curabitur dapibus, enim sit amet elit pharetra tincidunt feugiat nist imperdiet. Ut convallis libero in urna ultrices accumsan. Donec sed odio eros.

Another subsection

Donec viverra mi quis quam pulvinar at malesuada arcu rhoncus. Cum sociis natoque penatibus et manis dis parturient montes, nascetur ridiculus mus. In rutrum accumsan ultricies. Mauris vitae nisi at sem facilisis semper ac in est.

Vivamus fermentum semper porta. Nunc diam velit, adipiscing ut tristique vitae sagittis vel odio. Maecenas convallis ullamcorper ultricies. Curabitur ornare, ligula semper consectetur sagittis, nisi diam iaculis velit, is fringille sem nunc vet mi.

Related

- [Oh I do like to be beside the seaside](#)
- [Oh I do like to be beside the sea](#)
- [Although in the West of Ireland](#)
- [It never stops raining](#)
- [Oh well...](#)

W3C Specifications

- Readable and concise
- Simple guidance on structuring content

HTML 5.3

W3C Working Draft, 18 October 2018



§ 4.3. Sections

TABLE OF CONTENTS

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Article or Section - W3C Recommendation

4.3.10.1. Article or section?

This section is non-normative.

A <section> forms part of something else. An <article> is its own thing. But how does one know which is which? Mostly the real answer is "it depends on author intent".

For example, one could imagine a book with a "Granny Smith" chapter that just said "These juicy, green apples make a great filling for apple pies."; that would be a <section> because there'd be lots of other chapters on (maybe) other kinds of apples.

On the other hand, one could imagine a tweet or tumblr post or newspaper classified ad that just said "Granny Smith. These juicy, green apples make a great filling for apple pies."; it would then be <article>s because that was the whole thing.

Comments on an article are not part of the <article> on which they are commenting, but are related, therefore may be contained in their own nested <article>.

Semantic and Div'itis

- Div'itis : the process of using too many nested/unnecessary divs to mark up a page.
- Excessive use of DIVs makes page difficult to interpret, both by a human and machine reader

```
<html>
<head>
  <meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" />
</head>
<body>

<div id="container">

  <div id="topbar">
    <div id="header">
      
    </div> <!-- end header -->

    <div id="menu">
      <ul id="navigation">
        <li> <a class="navlink" href="/home.html"> home </a> </li>
      </ul>
    </div> <!-- end menu -->
  </div> <!-- end topbar -->

  <div id="content">

    <div id="news">

      <div class="headline"> News item 1 </div>
      <div class="newsstory"> story here </div>

      <div class="headline"> News item 2 </div>
      <div class="newsstory"> story here </div>

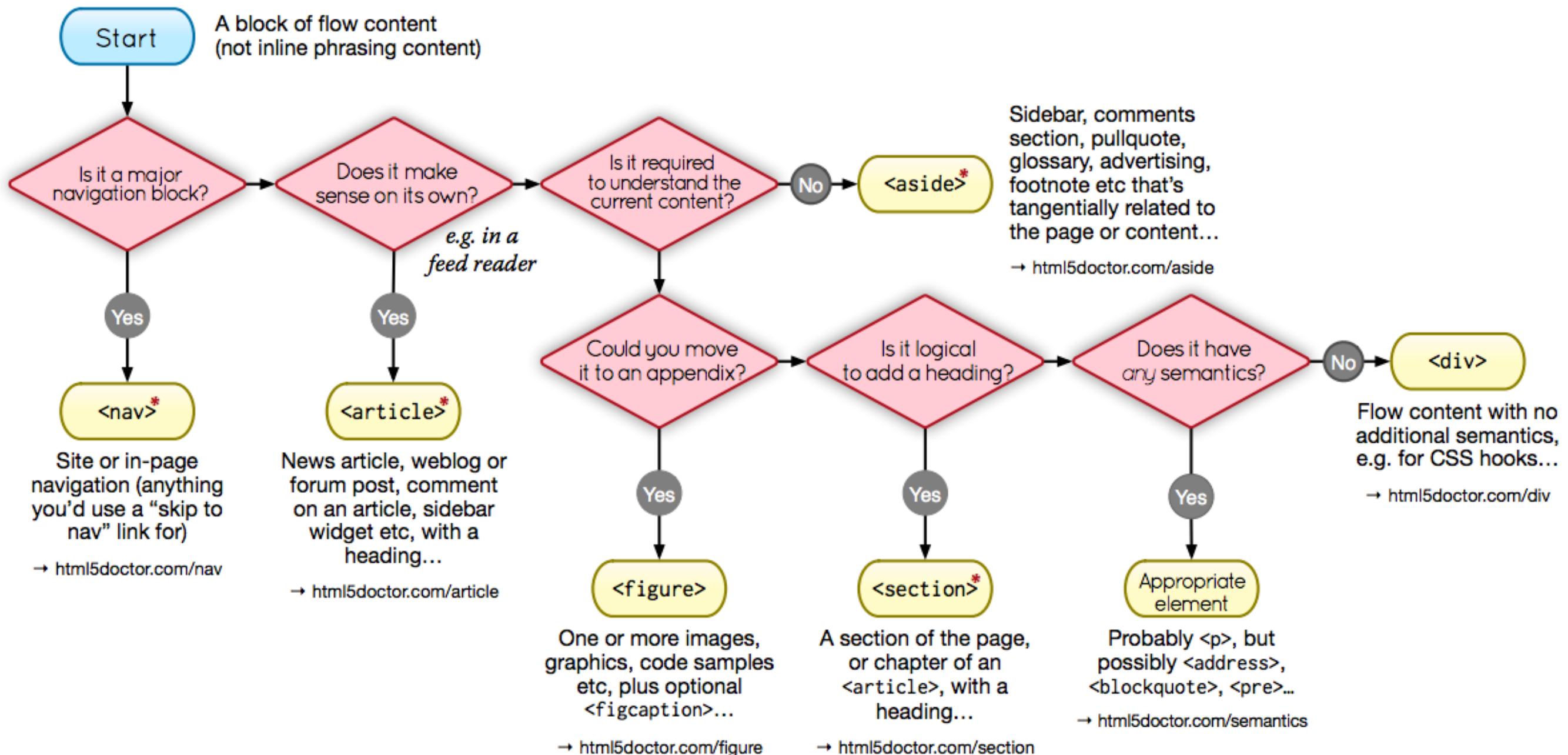
    </div> <!-- end news div -->

  </div> <!-- end content div -->

  <div id="footer">
    <div class="smalltext"> copyright &copy; 2005 some guy </div>
  </div>

</div> <!-- end container div-->

</body>
</html>
```

* Sectioning content element

These four elements (and their headings) are used by HTML5's outlining algorithm to make the document's outline
→ html5doctor.com/outline

Different Structures and Ordering



`<header>`

`<nav>`

`<main>`

`<aside>`

`<footer>`

```
<header>
  <nav></nav>
</header>
<main></main>
<aside></aside>
<footer></footer>
```

CSS example

- All of the semantic structural elements mentioned above can have CSS styles applied to them to control their appearance and position

```
51  header {  
52      padding: 2em;  
53  }  
54  
55  nav {  
56      background-color: #616e7d;  
57  }  
58  
59  section {  
60      padding: .5em 2em;  
61      text-align: justify;  
62  }
```

HTML5 semantic elements

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Figure and figcaption

- The <figure> element is intended to be used in conjunction with the <figcaption> element to mark up diagrams, illustrations, photos, and code examples (among other things).

“The figure element represents a unit of content, optionally with a caption, that is self-contained, that is typically referenced as a single unit from the main flow of the document, and that can be moved away from the main flow of the document without affecting the document’s meaning”

“The figcaption element represents a caption or legend for a figure.”

Figure and figcaption



This turtle was spotted swimming around the Great Barrier Reef (Queensland, Australia) quite gracefully despite having had a large chunk taken out of its right side, presumably in a shark attack.

[Photographer: Ian Lloyd]

```
<figure>

<figcaption>This turtle was spotted swimming around the Great Barrier Reef
(Queensland, Australia) quite gracefully despite having had a
large chunk taken out of its right side, presumably in a shark attack.<br> <span>[Photographer: Ian Lloyd]</span></figcaption>
</figure>
```

```
img.border {
  border: 15px solid white;
}

figure {
  border-bottom: 1px solid navy;
  margin-bottom: 2%;
}

figcaption {
  color:navy;
  font-size: 75%;
  font-weight: bold;
  margin-top: 0;
  width: 70%;
  line-height: 1.4em;
}

figcaption span {
  font-weight: normal;
  color: gray;
}
```