

# King's College London

## Web Tutorials 2001 – 2002

### Module One

#### Introduction to web page creation using Macromedia Dreamweaver

This tutorial will cover the following components:

1. **What is Dreamweaver?**
2. **What is HTML?**
3. **What is the difference between the printed page and a web page?**
4. **Images and links**
5. **Compatibility issues.**
6. **Web page layout**
7. **Download times**

### What is Dreamweaver?

Dreamweaver is a **WYSIWYG** web development program. It simplifies the more routine tasks of web development such as insertion of META information. One of its features is its on-board **FTP** client, allowing you to publish your pages from within the programme itself.

For anyone contributing content to a corporate website, Dreamweaver makes the most common tasks simple. For those who have previous experience of using HTML to construct their pages, Dreamweaver will simplify some of the more routine tasks.

The following pages and exercises will enable you to use Dreamweaver for the first time, allowing you to develop your web pages with ease.

### What is HTML?

HTML isn't a programming language, it's a mark-up or scripting language and all it does is tell your web browser how to render or display your page. A web page script is composed of two components - the actual

#### Keywords

##### **WYSIWYG**

What You See Is What You Get – a graphical user interface (GUI)

##### **HTML**

Hyper Text Mark-up Language – **also Source** - the code behind the page

##### **FTP**

File Transfer Protocol – transferring web files between computers

##### **Source**

Another name for HTML code, but normally used to describe the code of a page already online.

content of the page and the HTML describing how it should appear. Every element that is in a Web page is marked up (hence the M in HTML) using HTML tags. It is these tags that tell your web browser how to render the page.

For example, a section of bold text in a web page will be surrounded by bold tags, and will look like this:

```
<b>This is a sentence in bold text.</b>
```

In most cases, HTML tags come in pairs - an opening tag (<\*>) and a closing tag (</\*>). As you can see, the closing tag looks like the opening tag, except that it contains a forward slash. (The asterisks indicate where the variable tag letter would be.) There are of course exceptions to this rule, but more about that later.

An HTML script must also conform to a specific structure. Scripts have two sections: the head, which contains hidden elements of a page, including its title (the text that appears in the top bar in the browser window, next to Microsoft Internet Explorer, for example), and the body which contains the contents of the page that you can see in the browser. The head and body of the page are also defined by opening and closing HTML tags to show where those sections begin and end. So, now you can create your first, simple page:

```
<html>
<head>
<title>My Home Page</title>
</head>
<body>
<strong>Content Heading</strong>
<p>Text and Images </p>
</body>
</html>
```

Don't panic! If you haven't even looked at HTML code before, you'll feel much better in about 30 minutes!

### Exercise One

Launch Notepad and type this script exactly as it appears into the text editor, then save it as index.html. Launch your browser and then locate the file and open it (**File > Open > Browse**). You will see a web page entitled My Home Page containing some bold text and some normal text.

All the elements that we discussed before are present in this script. There are a pair of head tags that contain a title for the page between the <title> </title> tags, and a body section with the content, formatted using simple HTML tags. You might notice a couple of other things about the script above. The first is that the whole script is contained within or nested between the tags <html> </html>. This tells your browser that it's dealing with an HTML script.

### Mini-Glossary (This is not an exhaustive list of tags)

**<html> </html>** - These tags are used to tell your Web browser to treat the script as an HTML file. Most Web browsers do this by default, but it's still good practice to include them.

**<head> </head>** - These define the head section of the document. All the script within these tags is invisible when viewed in a browser (apart from the page title. An exception!). This is also where certain **JavaScript** elements will go as well as any **META** tags, but more on these later.

**<title> </title>** - where the title of the page is placed.

**<body> </body>** - Defines the body section of the document, which contains the main **content** of the page.

**<strong> </strong>** - Makes text appear bold.

**<i> </i>** - makes text appear in italics

### Exercise Two

- Launch Microsoft's Internet Explorer
- In the Address Bar type in **www.kcl.ac.uk** This will take you to the King's College home page
- Click on **View > Source** – the source code of the page will open in **notepad**. Have a look at this to see which bits you can recognise. It's a good idea to have some familiarity with HTML for the purposes of tweaking certain browser incompatibilities or for inserting special elements such as JavaScript or Server Side Includes. (More on these later.)

### Exercise Three

**Now download the page and analyse it in Dreamweaver.**

- Using the same browser and home page, click on **File > Save As** and in the **Save As File Type** select **Web Page, Complete**. The page will then be saved, with its graphics and any other relevant files, onto your hard disk. It should comprise one HTML document and a folder.
- Browse to the saved HTML document on your hard disk and **right** click on it, choosing **Edit With Dreamweaver**.
- Dreamweaver will automatically launch and the page that you downloaded will open. You can then analyse the page and check out the HTML using the **split** or **code view**. This is useful if you want to find out or understand how a particular page was put together.
- Spend some time looking at the HTML code to see how much you can identify. (**See additional sheet**)

#### Keywords

##### World Wide Web

WWW – A vast range of inter-linked electronic pages, displaying text, graphics and other forms of multi-media

##### Internet


A network of millions of interconnected computers

##### Hyper-links or Links

Text based jump off points, linking directly to other sections of the page, other pages or other web sites.

##### Body Text

The main text displayed in the browser window.

- In the Code View, try changing some of the tags to see what effects they have on the page. Click on the Preview button  or choose **File > Preview in Browser** and select the browser to use.

## Exercise Four

Open Notepad and type the following code:

```
<html>
<head>
<title>Table Document</title>
<meta http-equiv="Content-Type" content="text/html;
charset=iso-8859-1">
</head>
<body bgcolor="#FFFFFF" text="#000000">
<table width="500" border="0" cellspacing="0"
cellpadding="0">
  <tr>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
  </tr>
  <tr>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
  </tr>
</table>
</body>
</html>
```

Preview this page in your browser. What you should see is a small table with two rows and two columns.

**What is the difference between the printed page and a web page?**

Until the advent of the **Internet** and the **World Wide Web**, information was routinely disseminated using the printed word. This continues today of course, but more and more information is also (or alternatively) published via the web. Unlike printed words and pictures, a web page can also display moving images and sound as well as other numerous interactive components. It is worth noting here that the flexibility of the printed page is far greater than that of a web page.

There are some basic principles to bear in mind when regarding web pages.

### Keywords

#### Graphic

Either an image created using a drawing programme such as Macromedia Fireworks or a photographic image.

#### Interactive

For the purposes of basic web design, this means when a web page component changes due to the intervention of the visitor.

#### File Size

The size of a file, measured in bytes or kilobytes. If the file measures in megabytes it's way too big!

#### Resolution

The setting that determines the amount of information that appears on your screen, measured in pixels. Low resolution, such as 800x600 makes items on the screen appear large although the screen area is small. High resolution, such as 1600x1200 makes the overall screen area large, although individual items appear small.

Once printed, a hard copy of a document will appear the same, wherever it is viewed. Web pages on the other hand can appear differently, depending on what type of computer is being used, which browser (and which version of browser) and the resolution and quality of the computer monitor. A printed document is navigated by turning the page and using the contents or index, whereas web pages are navigated using **hyper-links**. One of the most important differences between the two is the way in which the pages are read or viewed. Whilst the printed word tends to be read line by line, until the end of the text has been reached, the viewer scans web pages in a quite random fashion, until the relevant information has been found. The attention span of the web page visitor is also dramatically reduced. If the information cannot be found within ten seconds or so, it is likely that the visitor will move on to another page or site.

The expectations of web pages are also radically different to that of print. Books and magazines are bought or borrowed in the almost certain knowledge that they will contain the information required. This is not really the case with web pages as there is no guarantee that the web page that has been found will in fact contain anything of relevance.

### Keywords

#### **Pixels**

Short for picture element, it is one spot in a grid of thousands, that form part of an image produced on a computer screen. A pixel is the smallest element that software or hardware can manipulate to create graphical elements.

#### **Monitor**

Like television screens, a monitor displays pictures and information. Computer monitors are of a much higher quality than TVs.

#### **Platform**

Otherwise known as the Operating System

#### **Browser**

The generic term for a software programme that 'renders' or translates HTML code into a graphic format.

If the page is in fact appropriate, then the viewer will want as many links as possible to related information. This may be facilitated by body text links, a menu of links or links attached to graphics or photo images.

### Images and Links

As previously indicated, links are used to **navigate** through a body of information, whether it be a single page or an entire site. This is the most important component of any website. Without an effective navigation tool visitors to your site will soon become frustrated and move onto another site. These links are normally facilitated via text links, but depending on the style of a particular site, graphical images may also be used. An obvious example of this is a button or graphical text banner to facilitate a link. This can either be a static graphic or an interactive graphic that changes its look when activated by a mouse hover. The most common form of interactive button is the **rollover**, where the button has an **up** (normal), **over** (where the mouse pointer hovers over the button and **down** (where the button is pressed to select) state. Photographic images can also be used as links either to other areas on the page or web site or to a larger version of the same image (the smaller image is known as a **thumbnail**).

**Note:** Of course, photographs can be used in their own right but care should be taken if you are not to increase the file size of the page as a whole, making it very slow to download. It is worth remembering that most

people do not have fast Internet access. If, because of a high-resolution photograph, a page takes more than 10-15 seconds to download, most visitors will move on without waiting.

## Compatibility Issues

In order for your pages to be accessed by your audience, there are a number of fundamentals that you need to be aware of. The main consideration is that all these factors are partly controlled by the visitor to your site, not you.

### Page Size

One of the most important aspects of basic web page design is page size. How do you get all your information on the page? Well, it's worth remembering that this isn't a standard A4 sheet of paper. You will need to consider the different sizes of monitor that the web page is to be viewed on together with the screen resolution. A 15" or 17" monitor with a high resolution will display more of a page than those set at a lower resolution.

The object of this is to avoid vertical and/or horizontal scroll bars appearing on the browser. Under normal circumstances, vertical scroll bars are acceptable only if they do not make the user have to continuously scroll down the page to find the information they want. In these cases consider using a type of link called an **anchor** (more on this later). Horizontal scroll bars are never advisable. With so many variables, a balance needs to be achieved so that you get your information to your audience with the minimum amount of fuss. Experience shows that it is advisable to set the page width at no more than 740 pixels. The page height can be set at 500 pixels to begin with. If all the information that you need to display cannot be reasonably fitted within this area, then extra, continuation pages should be added. It is much more user friendly to manage the information in this manner than to just have one very long page.

### Monitor Size

The size, specification and affordability of computer **monitors** have changed considerably over the last few years. Where once a 14" monitor was accepted as **entry level** when buying a computer, it is now far more common to be offered a 17" model. Serious users such as web professionals and designers will usually opt for a 19" or 22" monitor. Designing for a 17"

#### Keywords

##### **Download**

Retrieving information from another computer or website.

##### **Load**

The process of the browser rendering or displaying a web page.

##### **Modem**

The hardware that enables you to connect to the Internet.

##### **Kps**

KiloPackets per second – the rate at which data is transferred via a modem. The higher the figure, the faster the transfer rate.

##### **ISDN**

Integrated Services Digital Networks – a fast type of digital network connection

monitor with a resolution of 800x600 pixels is now acceptable as the average user configuration and thus a page width of 740 pixels will easily fit on the majority of monitors. (The 60 pixel difference between 800 pixels and 740 pixels takes account of the window and its components. Thus 740 is the actual visible area of the web page.)

## Cross Platform Issues

**Cross Platform** is the term used to describe the compatibility of web pages between Microsoft Windows and Macintosh OS. Lately, other operating platforms, such as Linux have begun to gain popularity and whilst they are far from common, serious web designers should give them some consideration. You should view or test your pages on a Mac as well as a PC – and vice versa.

## Cross Browser Issues

There are a number of **browsers** available for the purpose of viewing web sites - **Microsoft's Internet Explorer** (App. 1), the Colleges preferred browser, **Netscape's Navigator** (App. 2) and **Opera** (App.3). Also, when viewed on a Mac, Internet Explorer (App. 4) and Netscape (App. 5) all of which are free to **download** and use. Each browser actually looks quite similar, but there are significant differences in the way they render pages. The King's website looks exactly the same in each browser and this is no accident!

## Browser Version Issues.

Not only are there different monitors, different operating systems and different browsers, there are also different versions of each browser – and they all render web pages slightly – and sometimes dramatically – differently. All these variables need to be considered by web designers when developing their pages.

The answer to all this is to **test** your pages on as many of these variations as you can. Alternatively, ask your colleagues or friends to check your pages on their computers.

## Web Page Layout

Before starting to create a page using tables you are advised to plan it on paper first. This gives you a much better idea of what goes where and also saves some considerable time later on. The creation and use of **tables** is covered in the next module. Tables can be used to present data and to produce more controlled and complex page layouts. They are the basis of almost all effective web page layouts. Each **cell** of the table can be used to hold page content (text or images, for example) accurately in place.

## Download Times

The maximum number of visitors will view a successful web site and its component pages if the pages download in an acceptably quick time. Nearly everyone who has access to the Internet from their home will use a **modem** to do so. Your modem will access the Internet at a particular connection rate or speed. This speed will vary from 14,000 **kps** to 56,000 kps, depending on the type of modem that you have. Many people have **ISDN** access, which is much faster at around 64,000 kps or even 128,000 kps. Other people will have **broadband** access at 500,000 kps. Accessing the Internet from your workplace means that it will be even faster than broadband speed. The college network provides a speed of 100,000 kps. So, just because it appears instantaneously on your desktop machine doesn't mean it will on a typical home PC or Mac.

For the purposes of web development, we have to accommodate the average user and this means developing pages for a typical 28,800 kps modem. Dreamweaver gives you an ongoing indicator of the download time of your page. The default is set at 28,800 kps, but this can be changed to suit individual requirements. The trick is to keep your pages down to around 10 – 15 seconds for a **maximum** download time – less if you can manage it. Just keep your eye on that indicator at the bottom of your Dreamweaver window (Fig. 1).

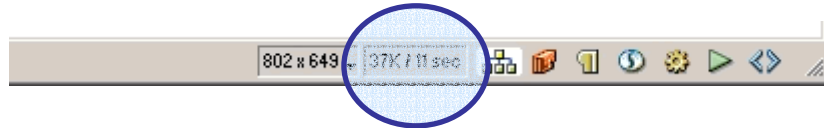


Fig. 1

In this tutorial you have learned about :

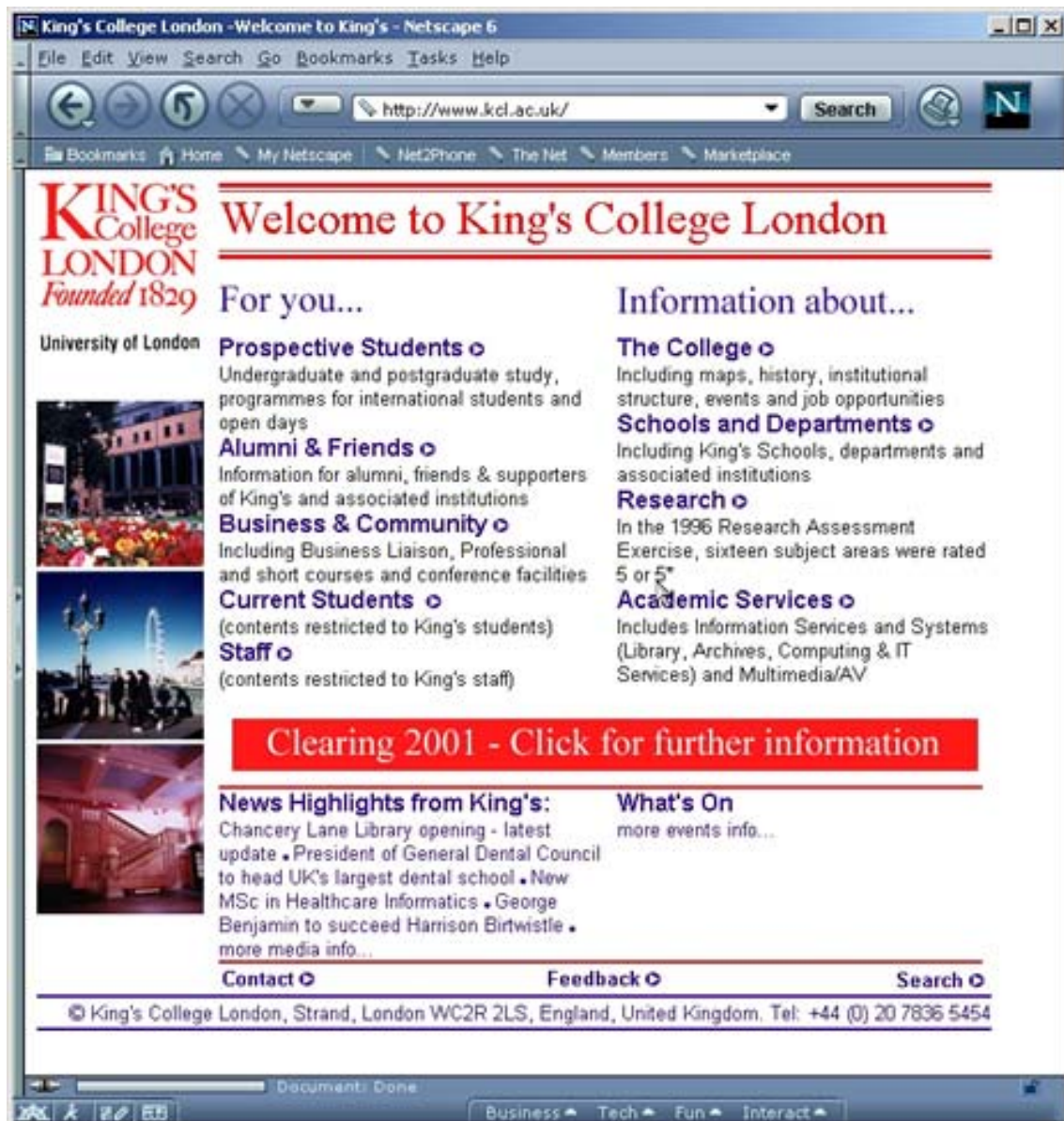
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# APPENDICES

## Appendix. 1 - Microsoft Internet Explorer



## Appendix. 2 – Netscape



## Appendix. 3 – Opera

Opera 5 - [King's College London - Welcome to King's]

File Edit View Navigation Bookmarks E-mail Messaging News Window Help

New Print Find Hotlist Back Reload

Forward Home

Credit card payments too high?

Want to slash your payments by 50%? Yes No

15:27

http://www.kcl.ac.uk/ <Search with Google here> 100%

# KING'S College LONDON

Founded 1829

## Welcome to King's College London

University of London

### For you...

- Prospective Students** ◦ Undergraduate and postgraduate study, programmes for international students and open days
- Alumni & Friends** ◦ Information for alumni, friends & supporters of King's and associated institutions
- Business & Community** ◦ Including Business Liaison, Professional and short courses and conference facilities
- Current Students** ◦ (contents restricted to King's students)
- Staff** ◦ (contents restricted to King's staff)

### Information about...

- The College** ◦ Including maps, history, institutional structure, events and job opportunities
- Schools and Departments** ◦ Including King's Schools, departments and associated institutions
- Research** ◦ In the 1996 Research Assessment Exercise, sixteen subject areas were rated 5 or 5\*
- Academic Services** ◦ Includes Information Services and Systems (Library, Archives, Computing & IT Services) and Multimedia/AV

**Clearing 2001 - Click for further information**

### News Highlights from King's:

Chancery Lane Library opening - latest update • President of General Dental Council to head UK's largest dental school • New MSc in Healthcare Informatics • George Benjamin to succeed Harrison Birtwistle • more media info...

### What's On

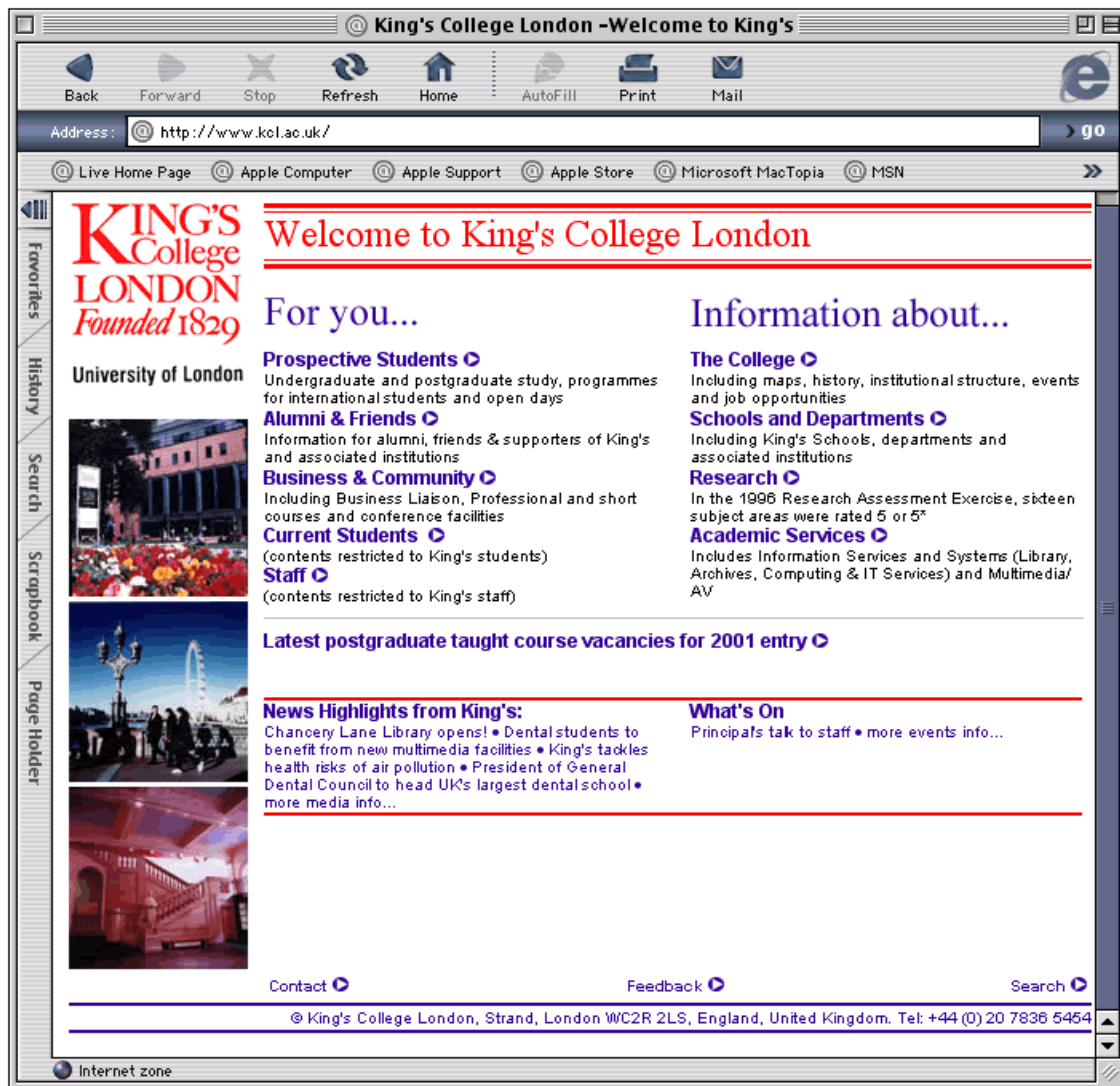
more events info...

[Contact](#) ◦ [Feedback](#) ◦ [Search](#) ◦

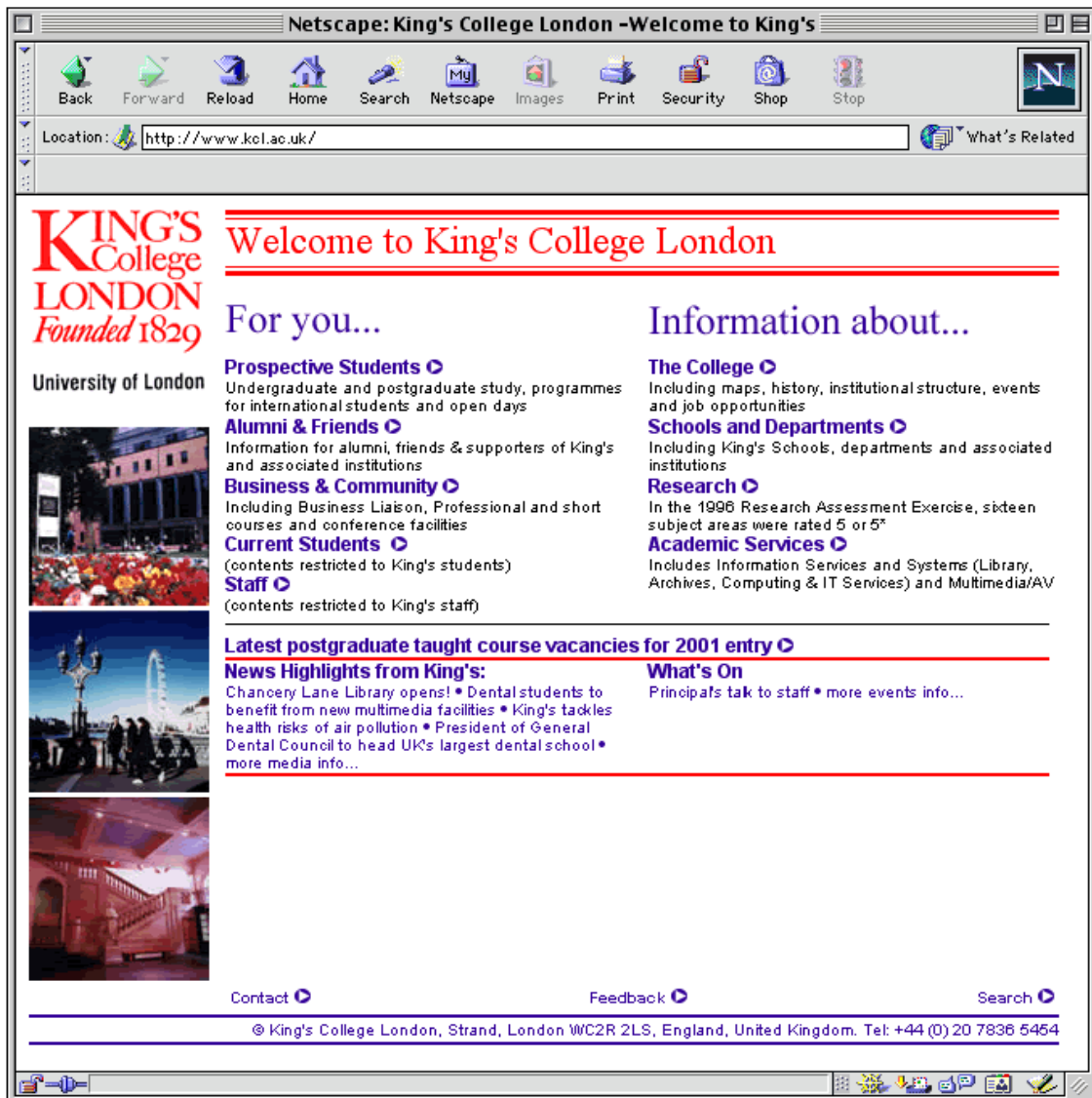
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## Appendix 4. Internet Explorer on a Mac



## Appendix 5. Netscape on a Mac



## Appendix 6. Opera on a Mac

The screenshot shows a web browser window titled "King's College London - Welcome to King's". The address bar contains "http://www.kcl.ac.uk/". The page features the King's College London logo on the left, which includes the text "KING'S College LONDON" and "Founded 1829". The main heading is "Welcome to King's College London".

The page is organized into two main columns:

- For you...**
  - Prospective Students** ◊: Undergraduate and postgraduate study, programmes for international students and open days
  - Alumni & Friends** ◊: Information for alumni, friends & supporters of King's and associated institutions
  - Business & Community** ◊: Including Business Liaison, Professional and short courses and conference facilities
  - Current Students** ◊: (contents restricted to King's students)
  - Staff** ◊: (contents restricted to King's staff)
- Information about...**
  - The College** ◊: Including maps, history, institutional structure, events and job opportunities
  - Schools and Departments** ◊: Including King's Schools, departments and associated institutions
  - Research** ◊: In the 1996 Research Assessment Exercise, sixteen subject areas were rated 5 or 5\*
  - Academic Services** ◊: Includes Information Services and Systems (Library, Archives, Computing & IT Services) and Multimedia/AV

Below these columns, there are several sections:

- Latest postgraduate taught course vacancies for 2001 entry** ◊
- News Highlights from King's:**
  - Farewell concert for Sir Harrison Birtwistle •
  - Library - new term update •
  - Chancery Lane Library opens to students •
  - Dental students to benefit from new multimedia facilities •
  - more media info...
- What's On**
  - Welfare and information services for students •
  - Cannabis - who gives a puff? •
  - Principal's talk to staff •
  - more events info...

At the bottom of the page, there are links for **Contact** ◊, **Feedback** ◊, and **Search** ◊. The footer contains the copyright information: "© King's College London, Strand, London WC2R 2LS, England, United Kingdom. Tel: +44 (0) 20 7836 5454".