what's type?

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What's Type Anyway?

Design is about the effective communication of information. One of the most important components of effective communication is typography. Typography is the most common form of communication next to oral language. The written word developed from the need of an oral society to communicate large amounts of information over vast distances. It evolved until a standard set of abstract symbols was accepted by those who held power. In the 1400's, Gutenberg perfected movable metal type and revolutionized communication. He gave literacy to the masses and took power away from the elite. However, those with the needed skill and ability to produce the type for printed materials were dependent upon the financial support from church and state. Those responsible for the groundbreaking work in typography apprenticed and studied type for years before they were recognized for their work. Training, skill and a love of letterforms and how they work were requirements for working with type.

They still are today. With the advent of the desktop computer, almost all aspects of visual communi-cation are back in the hands of the designer. Today, developments that would have seemed impossible thirty years ago occur at dizzying rates. Most impactful has been the Internet. With such a powerful way to transmit mass amounts of information, there has been an explosion in the amount of possible ways to communicate information. Type still plays an integral role in this day of information overload. People who never would have given a second thought to creating a typeface, or font as it is commonly referred to now, put it out to the public daily. However, an understanding of the rich history of type and its basic principles is absent.

Ignorance about how type works, and its history, serves to perpetuate the inappropriate and ineffective use of type. There are those who would argue that one does not need knowledge, but skill and talent. How does one acquire skill: through dedication and practice. Is this not then knowledge? With skill and knowledge comes experience. By working to create a typeface, one

experiences the effort and energy required for the creative process. Typography is a wonderfully complex, artistic medium that is underutilized for personal expression. Type contains some of the purest forms of abstract expression developed by man. Symbols stand for definite thoughts and sounds, forming letters, words, sentences and paragraphs that have a myriad of meaning. Without letters, our society would continue to rely upon the oral tradition, where information is passed on verbally with little hope of ever being true to its original form. Type allows an opportunity to ensure the accuracy of the original information, while allowing the emotional content to be expressed through its appropriate use.

Through the medium of the Internet, I will create an informational web site which will act as a tool for those who wish to learn about the wonderful medium of typography. Part of this effort will be the creation of a typeface which will be used as an example in the site when discussing designing type. But how does one effectively explore the expressiveness and emotional impact of type without losing sight of legibility and readability? At what point does illegibility occur? Is it when the letterforms become distorted? Or does it happen when there is too much information presented at one time? How can there be effective communication when a reader can't "read:" the text? What makes text become an image? What makes an image become text? By exploring the possibilities of the image/text relationship, I hope to find for myself what boundaries, if any, there are and how to best use my findings in communicating information effectively. Coinciding with the web site, I will develop printed collateral in the form of promotional material for the typeface I create. This may include, a poster, or series of posters, exploring the image/text relationship; postcards seeking the same result, and a specimen book, detailing the process of the creation of the typeface and giving voice to the findings of my explorations. So does this mean that there will be less confusion and misunderstanding about type? Unlikely, but it may shed light for some who have been unaware of their ignorance of type.

what's type?

I want to design a web site.

That's cool.

Yeah, it's gonna have all sorts of cool things going on in it.

Sounds great, how are you going to do it?

I don't know.

This is how designing web sites usually starts off: Lots of enthusiasm, but not much experience doing it, nor an understanding of the process of developing a web site. Fortunately, I have had a bit of experience doing web development, and so the how wasn't so much of an issue as the what. For my particular project, I elected to design and develop an informational web site about type. Both of these subjects, web development and type, are heatedly discussed within the design community today. Meshing these two elements into an informative and educational experience create an almost overwhelming project, but being the ambitious individual I am, I went for it.

Having decided on the subject and the medium to carry my message, now I just need to flesh it out and give it life. So how does one go about developing a web site? What sort of process does one use to bring to life an online experience? This was one of my goals in doing What'sType?: to experience the process of developing a web site. Like the rest of modern day graphic design, web design appears to be deceptively simple: you get your concept, do your research and a few tissues, decide upon a direction to go, and execute. What is not mentioned is the amount of detail that needs to be given to technological concerns: content, browser and platform compatibility, production time, file optimization, troubleshooting, testing, the list can go on and on. I will start at the beginning of my approach to What'sType?, and explain my process, hopefully shedding some light on what goes into the development of a successful web site.

Prior to designing anything, some basic organization needs to take place. First off, a set of folders organized by their content are created, as shown in Figure 1:

1-Master: contains the master files for the site. This includes the HTML and graphic files, as organized by the site hierarchy.

2-Webmaps/Storyboards: contain the Webmaps and Storyboards that are created in the initial planning stages of site development.

3-Source/Research: holds all of the source material that is given to me by the client, and any research material that is relevant to the site.

4-Copy: holds all of the copy that is written for the site, but not supplied by the client.

5-Working: is the most important folder. It contains the working files of the site, including the prototype site and any other files that are used in developing the site.

6-Stylesheets: holds the appearance information of how the site is to look, templates, color palette, font specifications, etc.

7-Backup: is a self-explanatory folder, it holds vital backup files.

8-Project Management: holds the documentation that is associated with the site: the design brief, budget, client correspondence, etc.
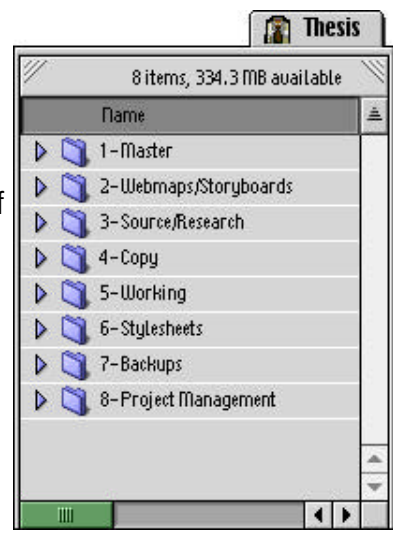
By organizing the information that I worked with, I was more productive and organized, resulting in a more successful site than if I had just lumped everything together and tried to sort it out at the end. Imagine sorting through close to 3,000 separate files and organizing them? What a nightmare!

Second, time tracking procedures needed to be implemented. True, this is a student project, and there isn't any real budget to be worried about, but as a professional, I need to be aware of how long a certain task takes. What better way to learn this than to track my time? Having had a small amount of exposure to time management, I decided to track my time in 15-minute intervals. Needless to say, my life has been divided into 15-minute increments ever since (See Appendix D: Time Tracking).

Third, I needed to decide what information to include and how I was going to present it. I decided to present my information in a direct manner: give the history of type first; help develop a working

vocabulary of typographic terms; show the various parts of letterforms and their relationships in a successful typeface and how to classify them; give an example of how to design a typeface using the technology that is available to today's designer; inspire my visitors with a gallery of typographic design from around the world; and finally, give those who visit a list of resources to further enhance their knowledge of things typographic.

With this organizational information in place, I now had to work out some of the specifics. Each page that was to be developed needed to be represented in an organized and structured way. This is called web mapping. Web maps are also called flowcharts. They are an easy way to hierarchically structure and organize your information. They can range from simple to very complex, all depending on the kind of project that is being developed. The web maps for What'sType? are fairly simple, as shown in Appendix A at the end of this paper.

Once the web maps are complete, the next question that arises is the site navigation, or user interface (UI). This defines the look and feel of a site, and how access to the content of each section is to be handled. Is there going to be easy access to all parts of the site? Or will it be done in a linear manner that leads the viewer by the mouse from the beginning to the end? The latter was discarded due to the fact that true interactive design allows the viewer, or participant, to decide upon the path that they follow. With this decided, the next decision was the visual look and feel of What'sType?.

Designing the user interface proved to be one of the biggest challenges in developing What'sType?. The user interface is one of the most important elements of a successful web site, or any other interactive project. It sets the look and feel of the piece and gives the participant an idea of what to expect from their interactive experience. Wanting to present type in a way that brings out the beauty and expressiveness of type, and not bog the viewer down with distracting bells and whistles. I decided to place a basic navigation bar at the top of the screen, in a frame, with simple,

understated buttons pointing to each section. The structure of the onscreen presentation took

on a life of its own, once I decided to present What'sType? in this minimalistic manner. To assist

in understanding my decision, a basic web-based discussion needs to occur.

HTML, HyperText Markup Language, is the basic programming language that is used to compose

pages published on the Internet. It is a fairly easy language to learn. Logical and straightforward,

HTML was originally designed for text only use. Tags are used to describe what is going to happen

on a page. To use a tag, there needs to be an opening tag, and a closing tag. I won't discuss the

specifics of HTML, but the following HTML code illustrates my meaning:

```
<b><a name="alphabet"></a><font face="Arial,Helvetica">Alphabet</font></b><font
face="Arial,Helvetica"> - A group of abstract symbols, called <a href="#character">
characters</a>, that represent sounds created by speech. </font>
<br>
<br>
```

Tags need to be used in an orderly manner. There can't be a closing tag before an opening tag, and

the HTML, or code as it is commonly called, should be clean, or free of cluttered and bad tags that

may create problems for viewing.

Since its introduction, HTML has evolved to allow for the inclusion of graphics and various

other multimedia helpers, called plugins. An HTML page is viewed in a browser. A browser is an

application program that reads the HTML file and translates it into a viewable page. There are

a large number of variables that are controlled by the end user who has the browser on their

computer that can't be controlled by the designer of an HTML page. Much can be controlled, but

there is always an x-factor that needs to be acknowledged. Two of the most commonly used

browsers today are Netscape Navigator™ and Microsoft Internet Explorer™. There are several other

browsers available, but these two are the most popular and most frequently used to "surf"

the Internet.

I decided to use frames in my site. Frames are a way of dividing a page into sections. They are created by a frameset, in an HTML document in this manner:

```
<html>
        <head>
                <title>- What'sType? - </title>
        </head>
        <frameset rows="75,*" border="0" framespacing="0" frameborder="NO">
                <frameset cols="655,*" border="0" framespacing="0"
frameborder="NO">
                        <frame src="nav_bar.html" name="nav_bar"
scrolling="NO" noresize>
                        <frame src="blank.html" name="blank" scrolling="NO">
                </frameset>
                <frame src="index2.html" name="bottom" noresize>
        </frameset>
        <noframes>
                <body bgcolor="white" link="#cccc99" alink="#cccccc" vlink="#cccc99">
                </body>
        </noframes>
</html>
```

I felt that frames would allow me to have a greater control of the onscreen appearance of What'sType?. However, the real advantage of frames is that they allow for the browser to call out to a number of different HTML pages at once, thus presenting more information at the same time. Frames also allow the targeting of an individual frame, 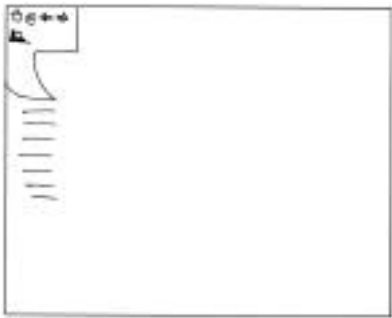lowering the overall download time because some of what is presented is already loaded and ready. Since each section that I wanted to have would conceivably have multiple pages, frames made the most sense for presenting the various navigational elements of What'sType?.

Fig. 2: UI Sketches

To illustrate how I arrived at this decision, it's a good idea to take another step back. Before deciding to use frames, I did several preliminary sketches (Figs. 2-4), trying to create

Fig. 3: UI Sketches

a visually stimulating, yet easy to understand, look and feel.

The initial interface that I decided to further develop (Fig. 4) contained information on both the top and left of the screen. I was hoping to have a file folder presentation.

Upon evalutating this particular idea, I came to the conclusion that it provided too much of a frame for what I was presenting. True, I wanted to present the majority of my information in a "frame" in the lower right of the screen, but I didn't want to force the viewer to that location. I wanted them to naturally arrive there.

Discarding this possibility, I went to letterforms for inspiration. I explored several different letterforms, looking for something that had the sensuality and allure of type that would work as a navigational element. I did find something in the capital G of ITC NewBaskerville (Fig. 6). This form had a powerful effect on me, so I decided to see where it would lead.

Fig. 6: G-Shape

I now had a shape I felt would lend itself to a visually appealing navigational experience. Moving into production for the UI proved to be my first major creative block on this project. Having the UI in a stage that was stagnating to me, and detrimental to my productivity, I decided to let it sit for awhile and develop another facet of What'sType?.

The facet that I turned to was the identity and color palette for What'sType?. Like any other visual entity, What'sType? needed to have an identity. Additionally, since What'sType? is intended to live entirely onscreen, the mark had to be extremely legible.

I started the identity process by doing several type studies. Selecting several different typefaces, I set "What'sType?" in each typeface and eliminated those that didn't communicate the qualities that I felt needed to be expressed by What'sType?. This process of elimination led to the selection of Clarendon Light and OCRB. Since this is a site about type, basic rules of typography influenced this decision. Mixing type requires knowing how typefaces relate to each other. Clarendon Light has serifs, and OCRB is sans serif. By selecting a serif and sans serif typeface, a visual harmony is created. Both are highly legible and distinct typefaces that have an onscreen presence that com-municates the expressive and conservative qualities of type that I feel are important. Rearranging the elements, a finished black and white logotype was quickly arrived at (Fig. 7).

Fig. 7: What'sType? b/w logo

Having designed my logotype, and specified the typefaces to be used, I then created my color palette. Unlike print design, there are limitations to onscreen color usage. Due to the nature of the Internet, there are a limited number of colors that can be used, 216 to be exact. To help with the selection of a color palette, I printed out the web palette. To select the colors I thought might work nicely together and give What'sType? a visually pleasing onscreen presence, I did color studies in Adobe Illustrator™ to see how my initial selections worked out. Refinement led to the selection of twelve colors. These I applied to the visuals I had developed to date. They weren't all as successful as I wanted. Additional refine-ment led to the elimination of most colors and the addition of some, giving me eight colors. Still feeling something wasn't quite right, I re-examined my color palette and added the
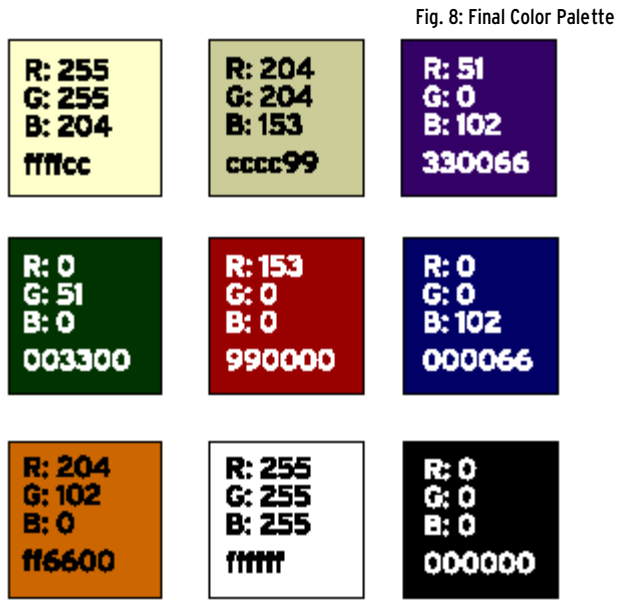
Fig. 8: Final Color Palette

R: 255 G: 255 B: 204 ffffcc

R: 204 G: 204 B: 153 cccc99

R: 51 G: 0 B: 102 330066

R: 0 G: 51 B: 0 003300

R: 153 G: 0 B: 0 990000

R: 0 G: 0 B: 102 000066

R: 204 G: 102 B: 0 ff6600

R: 255 G: 255 B: 255 ffffff

R: 0 G: 0 B: 0 000000

final two colors (Fig. 8). More refinement occurred as some initial site development was done. Also, each section was assigned a color, and this color was applied throughout that particular section with graphics, images if possible, and links, giving a unified look to each section, and to the site as a whole. With the color palette in place, I applied it to my final logotype (Fig. 9). This proved to be a fairly quick, but vital, process.

The identity in place, my efforts now turned to research for the History section. Hoping to present a fairly comprehensive history of type, I found all of the type histories I could and culled as much information as possible from them. Finding that there were several holes in what was online, I went to my personal library of type books. I found more information there, but still wasn't satisfied. I went to the library, bookstores and magazine racks, ending up with several pages of notes from a large number of sources that compiled a wonderful, comprehensive history of type.

Next, I wanted to organize my notes. This proved to add to the creative block I was battling. I began to feel overwhelmed by the scope of what I was hoping to accomplish. The sheer immensity of the information I had about the history of type was astounding. How could I ever hope to distill this into something that made sense? I had no idea. During this time, I was also dealing with technological limitations. There were applications that I had to learn, and understand, so I could improve my production efforts. The learning curve was steep, and there seemed no end in site to my woes, more truthfully, the end was too vivid, and too close. I felt lost, dangling at the end of a swiftly unraveling rope. Stuck (Fig. 10), I moved to the next section that I hoped to include: Typographic Terms.


Fig. 10: What now?

This move turned out to be a fortuitous one. Since the terms section was to contain mostly text,

all I had to do was decide what I wanted to include and key-in the text, then cross-reference the entries and create graphics for the various dividers in the section. Both the side navigational elements and main page were worked out fairly quickly, and the Terms section was complete!

Armed with this small success, I moved back to the UI. The UI had taken on some life as I had waded my way through the research for the history section and developed the identity and color palette. I had decided it would be best to have a frameset that was broken up into different sections. There would be an overall frameset that would include the navigation and provide a frame that would present all of the content of What'sType?. Additionally, the lower frame would be broken up into a side frame and a main frame for each section. Each side frame would contain all possible links for the its section, targeting the main frame (Fig. 11).

Fig. 11: Setting up framesets

Organizing framesets can be a challenge, especially if there is going to be a complex group of framesets. Fortunately, the software I was using to set up my framesets, GoLive CyberStudio™, allowed me to easily view results of my frameset experiments and I was able to organize my framesets rather rapidly.
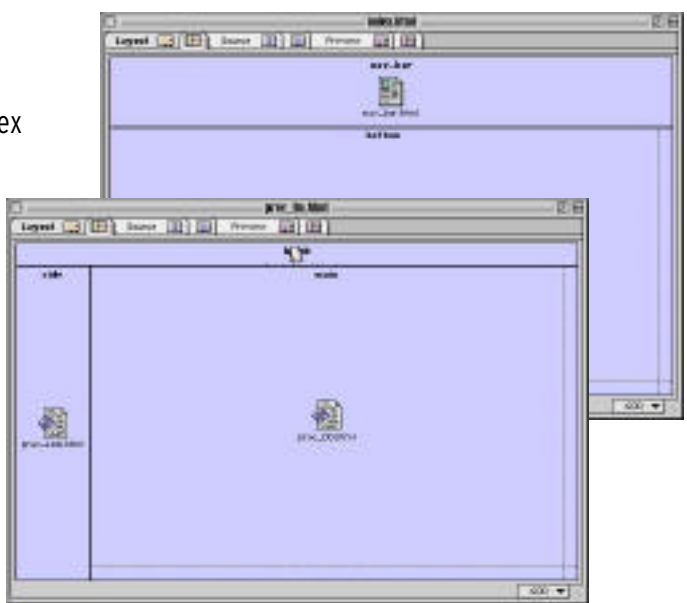
Once the framesets were finalized, the navigation moved a little more swiftly. In an effort to show the expressive nature of type, I decided to layer type terms upon each other and use the G-shape as a pattern for this layering (Fig. 12). Once I had layered a large number of terms over the G-shape, I moved from

Fig. 12: Layered text on the G-shape

Illustrator™ into Macromedia's Fireworks™. Fireworks™ is a vector-based web graphics production application. It creates very clean typographic graphics, and was my choice for developing the final graphics of What'sType? for this reason. Having opened my Illustrator™ file in Fireworks™, I now began to develop a more visually interesting navigation bar. Applying a drop shadow to each typographic term, I discovered that the G-shape was going the way of the dodo. It was limiting my ability to clearly identify the navigational elements I wanted to present. So I dropped the G-shape. Instead of floundering again, I forged ahead. My desire now was to create a beautifully layered navigation bar (Fig. 13) that lent itself to the beauty of the content of What'sType?.

Fig. 13: Layered nav bar

Unfortunately, this layered approached proved to be a failure. There wasn't integration with the site's content and there were difficulties making the navigation bar work with the elements intended to guide the viewer through the site. Instead of sinking into despair again, I went back to the tissues done in the beginning. Doing more tissues, I discovered a simple, linear form (Fig. 14) with the navigational elements placed just below it, worked wonderfully. Cheered by this breakthrough, I finished the UI and moved back to the History section.

Fig. 14: Final UI shape

Having already gathered dates and events, it turned out to be a bit easier to organize the information. Given the enormity of what I had before me, I decided to break the History section into smaller sections, determined in part by historically important dates. Now the challenge was to present this information in an interesting and interactive way. Normally, timelines are presented in a horizontal manner. Reading right to left, from the earliest date to the most current, timelines can be fairly dull to view online. Knowing this, I decided to break from the accepted presentation of timelines. Making use of the medium, my timeline reads top to bottom, earliest date to most current date. Pages on the Internet scroll down, so formatting the history timeline this way made sense to me. However,

deciding on this method of presentation created a small problem. How will the viewer know what

time period they are in? Alternating the background color of the timeline and placing the year

at the left when the colors change solved the problem.

A new problem of creating interest in the dates and events that happen presented itself. Having

an image for each event is a good idea, but the time required to gather images for close to 300

separate events is too much for the time allowed this project. Having some images, however,

is allowable, and necessary. But how can interest be created? By using JavaScript rollovers that

reveal the dates and events, then showing images when certain events are clicked on did the job.

JavaScript is another programming language that is used when developing content for the Internet.

It is included in the head tag of HTML. Using JavaScript can be problematic. Fortunately for me,

Fireworks™ automatically generates the JavaScript code that I needed to make rollovers happen.

Without this, I would have had a very static and uninteresting history section. True, the code isn't

as clean as it could be, but it serves nicely for what I intend it. With the History section finally

on its way to being completed, I moved on. As I began working on the Form and Process sections,

I realized in order to complete these two sections, I needed to do some writing.

Interactive writing is a challenge for any writer. Having no formal training with interactive writing,

I leaned upon the examples that have been before me as I have surfed the Internet. Granted, there

are some very bad writers in the mix of interactive writers, but for the most part, I saw several

good examples of what to do. With my energies focused on writing, there wasn't much going

on with the visuals. I struggled to make my words interesting and appealing to the reader, while

at the same time trying to remember where on the screen the writing was being read. Surprisingly,

the writing didn't take as long as I anticipated, and so I was able to move into production with

the Form and Process sections.

By developing the Process section before the Form section, I felt that I would be able to shed a greater light on what I needed to include in the Form section. It was, and is, my belief that the Form section is one of the more important sections of What'sType?. It shows many of the more commonly overlooked details of working with and designing type. By examining this aspect of typography, my hope is that a greater appreciation is paid to the process that is the art of designing type. Also, by doing the Process section first, I was able to work on my writing skills and improve them prior to tackling a very important section.

Initially, I had hoped to develop a typeface from scratch, documenting the steps I took, and present it in an enlightening way. Due to time constraints, I was unable to do this. I did have a typeface that I had designed a couple of years ago that I could use to illustrate the process of typeface design. As it worked out, the Process section is one of my personal favorites because of how successfully it deals with typeface design and keeps the reader interested. I still have some bugs to work out before I feel comfortable releasing the actual font to the world, but it will happen.

Discussing the shapes and classifications of letterforms is challenging. Keeping in mind that my audience will most likely be unfamiliar with the finer points of typography, I felt that the Form section would shed the most light on the wonderful medium of type. I broke the Form section into three distinct categories that discuss separate, yet equally important aspects of dealing with letterforms: Visual Characteristics-the visual appearance of letterforms and how they are handled; Optical Relationships-how letterforms relate to each other in a typeface and as a group; and Classifications-how different typefaces are classified into some basic categories.

Deeply involved in the creation of What'sType?, I revisited the UI again. It may seem that I am fixated on the UI. It is true. I want to have a very successful site. This is accomplished in a large part by the navigation. True, content is a major part of a site's success, but without a successfully integrated navigation, a site will never reach its full potential.

The changes made to the navigation bar were surprisingly minimal (Fig. 15). I removed the elements that contained the names of the sections and instead, placed them up with the feedback and sitemap buttons. These buttons are floral dingbats, or fleurons, that have a single color when they are inactive. When the cursor moves over them, they move up, with a drop shadow and reveal a color. This color refers to the colors assigned the various sections. I further refined the UI by creating an additional blank frame in the sub frameset that contains

Fig. 15: Final UI

each section's content (Fig. 11). This separates the navigation bar from the actual section, giving the typographic elements room to stand out. The sidebars for each section were given a background image containing the name of that particular section in a tint of the assigned section color. By doing this, the overall appearance of What'sType? gelled into a cohesive visual experience that gives emphasis to the content and visuals of the site. Happy that the UI was finally resolved, I moved onto the Gallery section.

Intended to serve as the dessert of What'sType?, the Gallery section is meant to inspire the visitors to What'sType?, and showcase some of the ways that type can be used creatively. To gather the pieces for inclusion in the Gallery, I contacted by email several well-known type houses and type designers. Much to my pleased astonishment, I received a fairly warm reception from them. Even getting a reply from Erik Spiekermann, founder of MetaDesign and FontShop International! (Unfortunately, he wasn't able to contribute a piece.) Needless to say, I am very pleased with how the Gallery section turned out. I didn't have many challenges other than gathering work to show. The pieces that are included in the Gallery are shown in a manner that spotlights the art. Also included are credits and contact information about each piece, this information was supplied by those who submitted work to be shown.

Mentioning the credits brings up a very dynamic, and potentially difficult, aspect of the Internet.

By linking directly to each submitter's home page, or URL (Universal Resource Locator), I could

potentially lose a visitor to What'sType?. To prevent this from happening, I made it so that if

a visitor is interested in checking out an external link, a new browser window opens up on their

desktop with the URL they want to check out. This way, they need to intentionally ignore the open

What'sType? browser window and follow another flow of information.

Following the divergent tendencies of an individual's thoughts, and in an effort to provide further

typographic stimulation, the Resources section contains a small compilation of links of typographic

interest. Along with these resources, a bibliography of what I referenced in developing the content

of What'sType? is given, and an HTML version of this paper is included, as an explanation of

my process in designing What'sType?. This way, those who are interested in how a web site

is developed may gain some insight of the process.

Having fleshed out the main portion of my web site, I wanted a page that would assist visitors

to What'sType? in figuring out where to go. I also wanted to make it possible for visitors to send

me feedback on their experience, so I can improve the site in the future. In order to facilitate these

desires, the Sitemap and Feedback sections were created. The Sitemap contains a brief text

description of each section of What'sType? with a link to each section. The Feedback section is

an interactive form that can be filled out and sent, via email, to me, so I will know what others

think of What'sType?.

That is how What'sType?, an informational web site about type came to be. Evolution is an accurate

description of what the Internet is about. Disseminating information and/or entertaining

is a primary goal, but what makes the Internet such an incredibly intriguing and fascinating

medium is that it is in constant flux. It grows and changes constantly. The process of development

seemingly never ends. But by going through and creating What'sType? I feel that I have gained

a much better impression of what is required to lay a solid foundation for developing a successful web site. Having completed What'sType? in a set period of time has merely allowed it to come to life. What changes and improvements are in store for What'sType? will only be known in time, watch and see what happens.
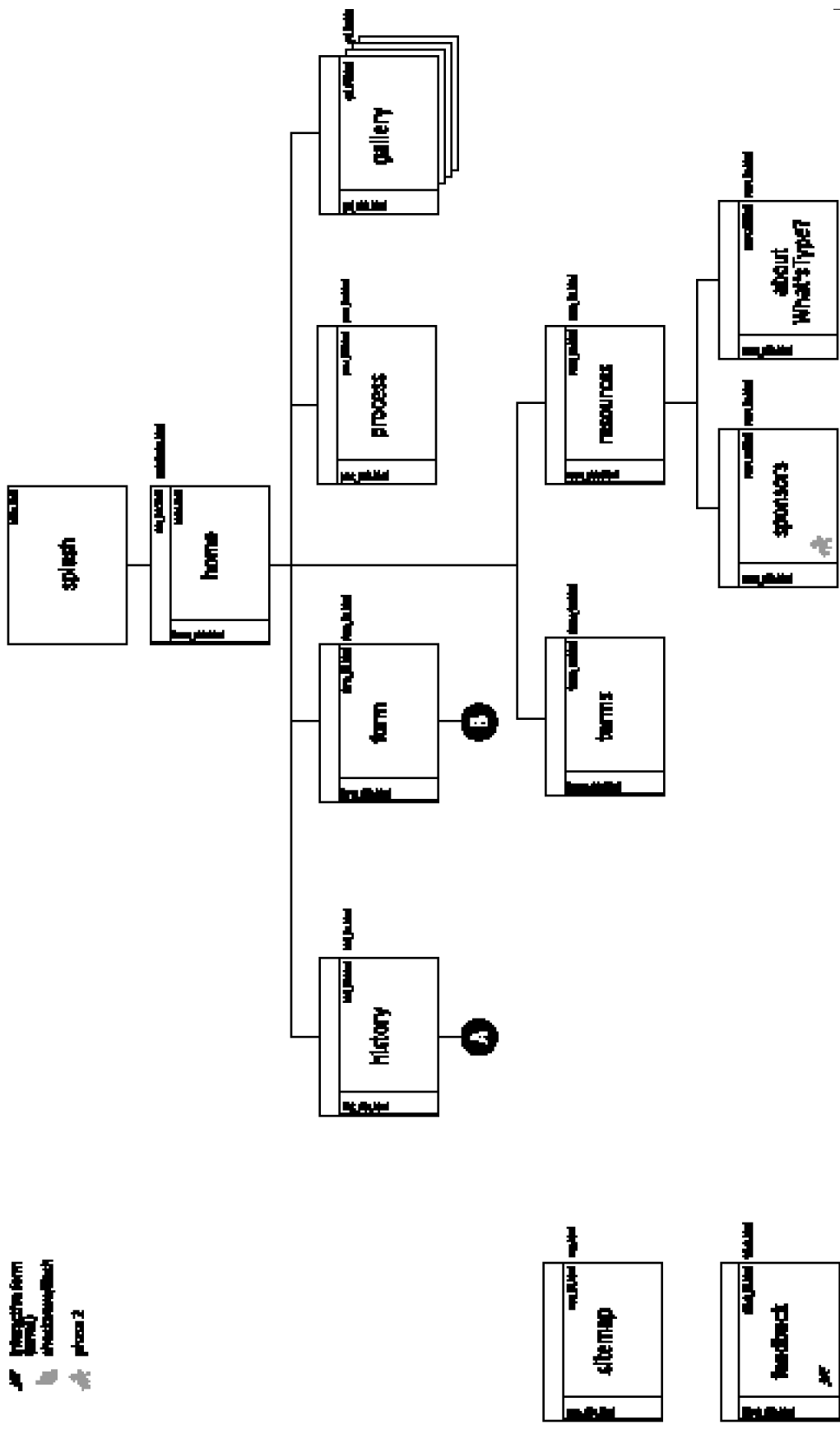
Appendix

appendix A: **Webmaps**

What's Type? Web Site

NOTE: Grayed boxes are to be implemented in Phase 2

splash

home

gallery

process

history

form

forms

resource

sponsors

about
What's Type?

sitemap

feedback

What's Type? Web Site

phase 1.0 rev. 12/8/98 sec. 1.5 pg 2 of 2

NOTE: Grayed boxes are to be implemented in Phase 1

A — history

- Interactive timeline: pre-Gutenberg
- Interactive timeline: c.1450–1702
- Interactive timeline: 1703–1899
- Interactive timeline: 1900–1949
- Interactive timeline: 1950–1979
- Interactive timeline: 1980–present

B — form

- virtual characteristics
- optical relationships
- classification

site map

feedback
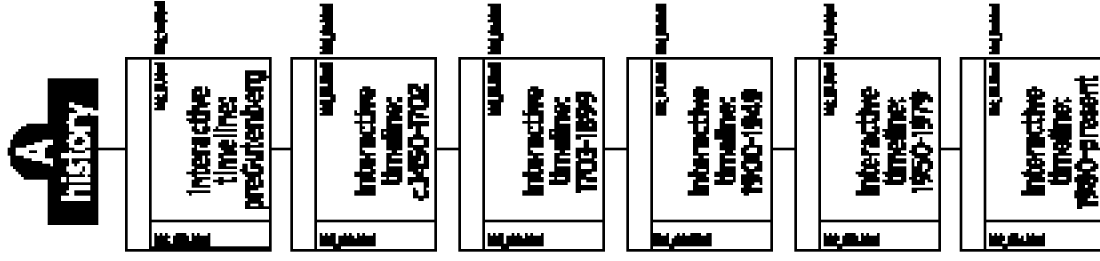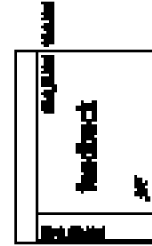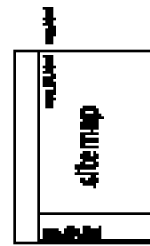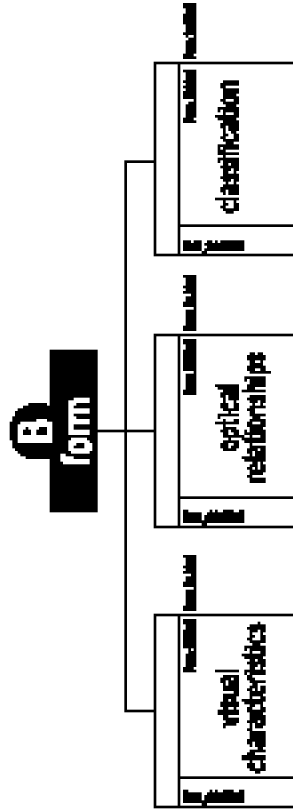
appendix B: **Sample Screens**

Sample Screens
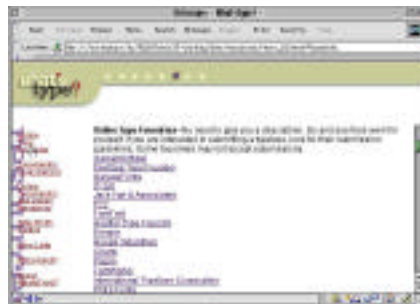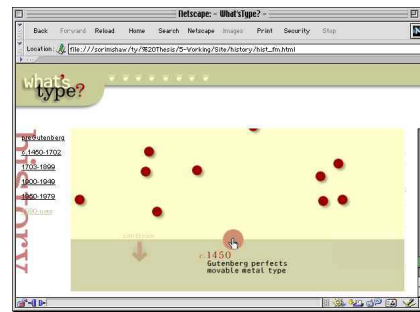
appendix C: **Bibliography**

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Countless back issues of **Emigre**, **U&lc**, **How**, **Print**, and **Communication Arts**.

appendix D: **Time Tracking**

Time Tracking

Time spent (in hours) developing What'sType?:

Research:	15.00
UI:	59.75
Writing:	20.50
History Section:	95.00
Terms Section:	15.75
Form Section:	14.75
Process Section:	7.75
Gallery Section:	3.75
Resources Section:	6.75
Feedback Section:	1.50
Sitemap Section:	.50
Misc. Electronic Production:	12.00
Project Management:	7.75
Client Presentations:	3.75
Written Paper:	24.75
Total Hours:	**289.25**