Third-Generation Sites
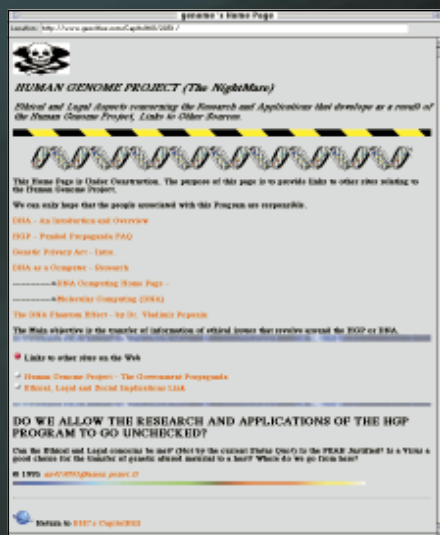
2.1 A, B First-generation sites: horizontal rules (ABOVE) and wall-to-wall text (BELOW) are the norm.

WHAT IS A THIRD-GENERATION web site? A third-generation site uses typographic and visual layout principles to describe a page in two dimensions. Third-generation site designers carefully specify the position and relationships of all elements on the page, retaining fine control of the layout.

Third-generation sites use metaphor and visual theme to entice and guide. They strive to make a site feel familiar and easy to navigate, with clear typography and high production values. This chapter covers the evolution of third-generation sites and discusses their structure in relation to well known models of consumer behavior. This chapter also addresses the design needs of information-based sites.

First-Generation Sites

The Framers of the Web designed HTML to look good on ASCII (text-only) terminals, black-and-white monitors, and low-resolution color displays. It needed to be functional, so scientists around the world could share their findings.

First-generation sites are linear. Looking at a typical first-generation page, you can see the restrictions imposed by slow modems and monochrome monitors. The page displays a top-to-bottom, left-to-right sequence of text and images, interspersed with carriage returns and other data-stream separators, like bullets and horizontal rules. All the initial HTML constructs were designed around this teletype model for laying out pages.

First-generation sites were gray [2.1 A]. Some sites had banners and

were well organized; most had edge-to-edge text that ran on for pages, separated by meaningless blank lines **[2.1 B]**. At best, they looked like slide presentations shown on a cement wall.

Second-Generation Sites

In the spring of 1995, Netscape announced a set of extensions to HTML. People played with the extensions and had fun with the `<BLINK>` tag. Second-generation sites began to sprout **[2.2 A-C]**. Second-generation sites are basically first-generation sites with icons replacing words, tiled images replacing the gray background, red and blue borders around the images, and banners replacing headlines. They use a top-down, home-page model to present a hierarchy of information **[2.3]**. Although first-generation sites still dominate by volume, second-generation sites are more popular because they have more graphics. Somewhere along the way, legibility went completely out the window.
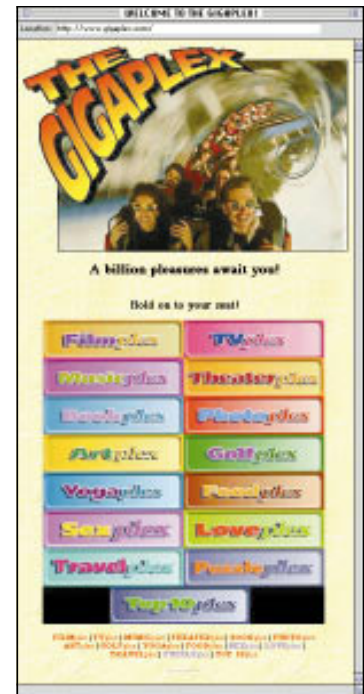
Technology has always driven the Web. Exciting new capabilities appear weekly, urging designers to try them. Second-generation site design continues to be menu-, icon-, and technology-driven. These sites tend to follow the
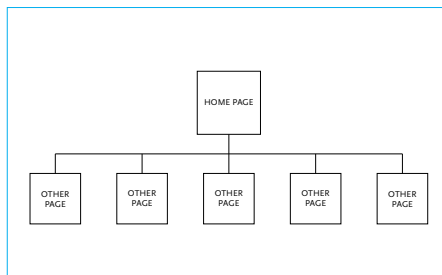
A

B

C

2.2 A-C Second-generation sites push visitors by using simile and hierarchy.

2.3 First- and second-generation sites start with a home page and a list of options.
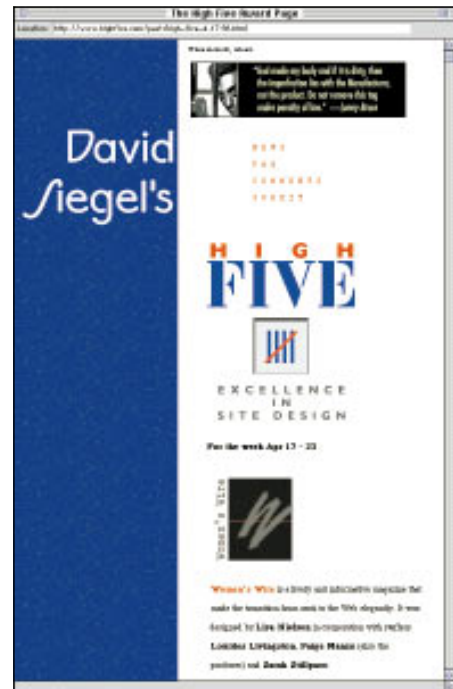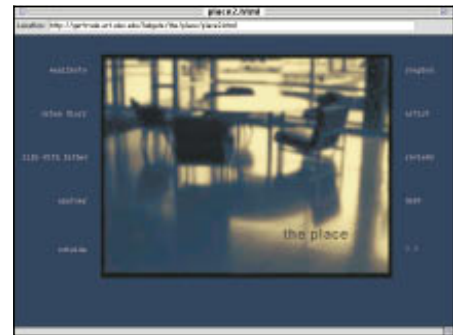
The Restaurant Model

I use a restaurant metaphor when thinking about sites. You hear about a restaurant from an advertisement or a friend, or discover it while passing by. You check out the daily specials chalked on a board out front and smell the aroma in the doorway.
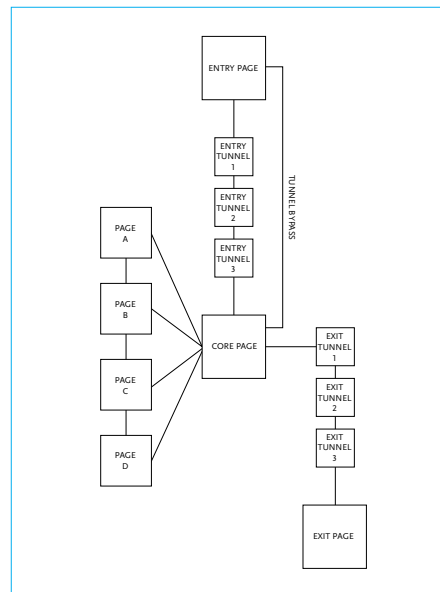
Once through the door, you make a quick stay-or-bail decision. In a popular restaurant, you might have to wait for a table. If you stay, someone shows you to a table and hands you the menu. You make your selection.

When the food arrives, you have no urge to rearrange the various items on the plate. The food and presentation are the creations of the chef. You sample the various items, skipping among them, mixing flavors and textures.

When you are finished, you have dessert, ask for the bill, and pay. You leave a tip, pick up the card next to the cashier, and maybe exchange a few pleasant words with the owner. Later, when you are hungry again, you return or you don't, based on the quality of that first experience.

2.4 A, B Early third-generation sites.

2.5 Third-generation sites pull people in the front door and guide them through.

home page model, where the first page you see is adorned with icons and 3-D graphical representations of buttons, windows, and pictures. At worst, noisy backgrounds and interminable waits for sound files make these sites unbearable. At best, they are nice white sites with color-coordinated icons.

Third-Generation Sites

A third-generation site is wrought by design, not technological competence. Third-generation sites give visitors a complete experience, from entry to exit. Design makes the difference. Creative people have made third-generation sites with all generations of graphical browsers **[2.4 A, B]**.

Third-generation sites pull visitors through using metaphor and well-known models of consumer psychology. Just as retailers spend a lot of time tuning their environments to the customers passing by, third-generation site designers spend hours and days making their pages enticing to the audience they seek. Third-generation sites form a complete experience – the more you explore, the more the entire picture of the site comes together. *Third-generation design turns a site from a menu into a meal.*

Browser version numbers do not compare! Netscape renamed a small upgrade to Navigator 2.0 as its 3.0 version, while Microsoft's Internet Explorer 3.0 is a giant step forward. Third-generation site *design methods* have nothing to do with third-generation browser versions. Navigator 4.0 will be the next major release from Netscape, promising to match a good portion of the Explorer 3.0 feature set and take the Web in new directions.

Site Structure

Millions of people surf the Web. You don't need all of them in your site. You want to reach a select group and turn window shoppers into customers who will take some action that benefits you both (send e-mail, order a product, give feedback, etc.). Telling people to order your products doesn't work. You must ask them nicely to come in and make them feel at home in your site. Most third-generation sites have an entry, a center area with a core page for exploration, and a well-defined exit **[2.5]**.

Third-generation sites pull visitors through by tantalizing them with something exciting on every page.

Entry

An entry to your site tells people where they are without serving your whole smorgasbord of delights at once **[2.6 A, B]**. More and more sites have *front doors* for just that purpose. A front door – also known as a *splash screen* – loads quickly and tells people what's going on inside. A good front door should be hard to walk away from. Present an image that grabs your audience and pulls them in.

Above all, splash screens should load quickly. Your first screen should take no more than 15 seconds to load at prevailing modem speeds – faster if possible. Present your visitors with a tedious download, and they'll be at

Case Study: Sobek Mountain Travels

Baiting the hook means giving something away. With the commercialization of the Web, fish food is nearly *de rigueur*.

One of the best gimmicks I've seen is the digital postcards of Sobek Mountain Travels. Visitors can send a postcard to a friend, and the site then sends that person an e-mail message saying there is a postcard waiting for them at the site.

They take the special number back to the site's virtual postmaster, who then shows them the picture and text from their friend who visited before. Once there, they are drawn into the rest of the site, where they learn about their tours and send postcards to all of *their* friends. This is a great example of how to give before you receive.

Yahoo! before your access counter can tell you what happened.

Fish Food

As people wander by your site, hold out a basket of goodies to tempt them. Gossip, news, sports scores, weather information, stock quotes, promotional sales, package-tracking services, pictures of Marilyn Monroe, free software, recipes, and sound files routinely lure potential audience members to third-generation sites.

This is what I call *fish food*. If you want to attract investors, put up either current stock prices or some lively, timely investment advice. If you're looking for dog owners, put up "The anatomy of the flea," or have a "name that breed" quiz. You want a gimmick that reaches out to the people you hope will form your community.

The technical term for fish food on the Web is *free stuff* [**2.7 A-C**]. Give visitors free stuff and a percentage of them will wander into your site. Use your imagination. Think of something your crowd would like to hear about, tell each other about, and go see. When people send your URL to their friends, you know you're serving something they want.

As any advertiser knows, there are no rules for getting people's attention. Use any means at your disposal, even

Java. Put up games, stunts, live video feeds, soap operas, a club for left-handers – anything that generates a buzz. Vandalize your own site, challenge another site to a contest, ask people to vote on something. Things like this work better than filling out forms and asking the search engines to list your site because of its great content.

Entry Tunnels

As visitors enter my sites, I like to give them the option of taking a little ride rather than going straight into the site. I call these rides *entry tunnels.* They help build anticipation **[2.8]** as people approach the heart of the site.

Entry tunnels are most appropriate for consumer sites **[2.9]**. Limit them to about four or five screens and make them entertaining. *Think of the Web as a cozy little town with a half-million restaurants.*

The Core Page

The ultimate goal of most web sites
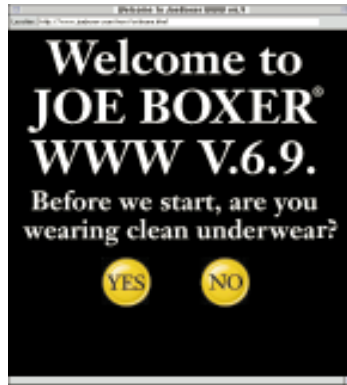
A

B

2.6 A, B A front door targets your audience.

A

B

C

2.7 A-C The goal of free stuff is to generate a buzz on the Web.

2.8 Entry tunnels build anticipation.

2.9 The Joe Boxer entry tunnel.

Barriers to Entry

Third-generation sites lure, seduce, coax. New visitors might not wait for a lengthy download on a high-bandwidth front page. Even the entertaining free stuff will irritate serious, repeat visitors if alternate points of entry or direct links to the core of the site aren't easily accessible. The best sites hook an audience before the audience even knows it.

In entry tunnels, it's no longer practical to ask people to register. Some entry tunnels say "Register here – free!" Who wants to register for free? If you really want people to register, you'll have to give them something major in return. Registration is a barrier to entry – be sure you need it before putting it in.

New approaches to registration will replace today's pleas for marketing information from surfers. The Web is advertising-driven. The advertisers will figure out a way to get what they want to know. In the future, your browser will automatically tell sites much more about you than they do today.

is to create a community. A good site pays off when people return again and again to purchase or participate. Core pages make this process enjoyable.

In contrast to the second-generation concept of a home page, third-generation sites can have either one or several core pages to organize and present the contents. Core pages direct and guide the visitor by providing links to relevant pages and other core pages. Core pages hold content while continuing to entice the visitor through the site **[2.10]**.

Don't be afraid to guide your audience. Give them choices, but also make suggestions. Give them lots of intrasite links and few external links. Put something interesting on every page.

Traditional home pages easily degenerate into an endless vertical list of links. Core pages use content to lure and tantalize. Use details of images and excerpts of text to guide your visitor – otherwise, your work remains buried behind flat, uninformative links.

Take the example of a mail-order site, where the goal is to get your user to call an 800 number or fill out an order form. A direct link to that order form or the 800 number itself should be available on almost every page. Most people won't click the first time they see it, but clicks are a function of exposure. Put the links to these final action pages everywhere, and your audience will get there when they are ready.

Exit

Paradoxically, a well-marked exit entices visitors to stay. Showing visitors the door to an exit tunnel informs them that this is the way out of the site. If they

come to an area that doesn't hold their interest, they shouldn't just type in "www.cirquedusoleil.com" and surf on. They should visit any areas that might be interesting before taking the exit.

Announcing the exit builds a sense of expectation, like announcing the names of the guests on the talk show at the beginning. It's worth your time to make an interesting exit. Cap their visit with a bang, but don't over-advertise it. Links to your exit should be subtle and constant, without enticing people to leave before seeing the rest of the show.

The exit page is a good place to ask for something from your visitors. You might want to have them fill out a form, call your 800 number, make a purchase, sign your mailing list, or take some other action. They are willing to work with you at this point, because you've rewarded their expectations.

The big finish may be as simple as a list of related sites on the Web, or it may be as fancy as an e-mail interface to an electronic billboard in Times Square (www.joeboxer.com).

Exits often include a chance to send comments or feedback, see a special image or movie, solve a puzzle, visit a random link, enter a drawing, etc. Free stuff can work as well at the end of a site as at the beginning.

Net Equity

If people talk about your site, if they come back often, if your metaphor starts a buzz and the front door is enticing, you will be on your way toward

building *net equity*. Simply put, net equity is audience mindshare.

Change Is Good

You have a site. You want bookmarks. People don't need to bookmark the entrance to your site – they can probably remember that. But if you have a compelling core page, they just might bookmark it. The free stuff gets them there, but they come back regularly to the core of the site to see what's new.

If your site changes every month, it might as well be static. If it changes weekly, people might bookmark the pages with interesting things going on. If it changes daily, you could be in for

2.10 A core page with content on the left and a magazine metaphor on the right.
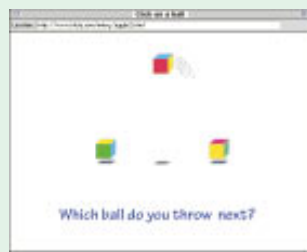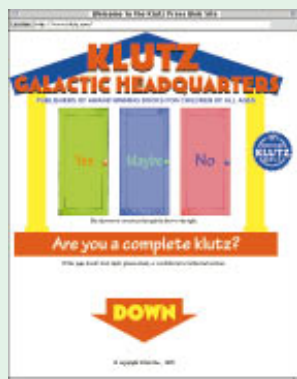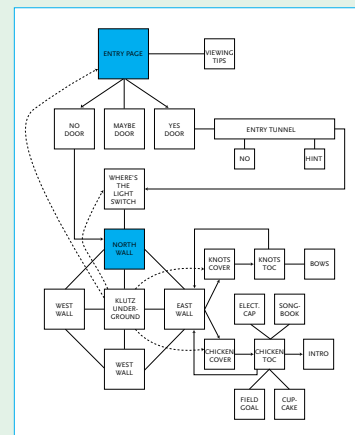
Case Study: Klutz Press

John Cassidy, owner of Klutz Press, asked me to create a web site for his company, a leading publisher of children's books. He wanted to put a few of the books' chapters on the Web, to illustrate how much fun they are. My original design for Klutz included a long entry tunnel, a dark room with a light switch, then a four-walled room. Each wall had a book on or near it. When you clicked on a book, you found yourself at the book's title page. Clicking on the title page took you to the book's table of contents, from which you could finally begin to play.

People loved the site, but few even reached the books. Most left after the entry tunnel. The book chapters were 14 clicks from the front door! Our redesign for Klutz is much more direct, without sacrificing fun.

As you arrive at the Klutz treehouse, an animated GIF automatically opens the door and beckons you in. On the second screen, you're in a room that contains a book, with its table of contents below. Selecting a chapter takes you right into the content on page three. We used a Perl script to randomize the books, so you get to a different book every time you enter the treehouse. This eliminated the need for another directory page – another layer of HTML with no content.

The moral of the story: put content on your pages as you guide your visitors.

The first sequence (ABOVE) and the revised sequence (BELOW).

some big numbers on your access counters. Make sure to provide links from your active pages to more static areas, especially if you are trying to drive visitors to a particular page.

How many sites have "What's New!" on the front page? We don't need to know how to get to what's new. If it's new, and it's important, it should be in our faces. Put some content on your core page – don't bury it under a "What's New!" link.

2.11 Only a constant effort to give people what they want can reap rewards later.
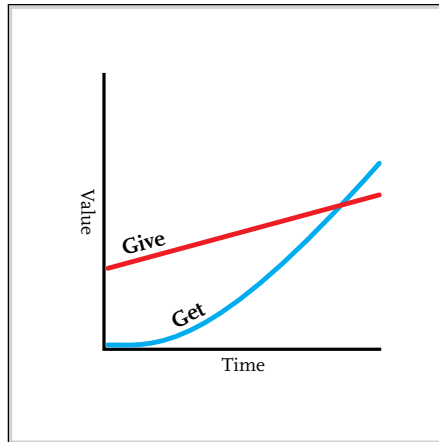
Give Before You Receive

Third-generation sites hand out free samples, feed their visitors as they make their way through the site and re-ward them for coming back. The more you give, the more you must keep giving **[2.11]**. If you keep at it, visitors will give back when they are ready.

Attention to the details of making a third-generation site will create a place where people like to hang out, and hanging out translates into net equity. The more net equity you build for your audience, the more you'll be able to ask for later.

Metaphor: Vehicle of Exploration

Third-generation sites often make effi-cient use of metaphor. A strong meta-phor can guide a visitor and glue a site together. Metaphors must be familiar, consistent, and appropriate for the modem speeds of the Web. Metaphors pull in visitors, make them feel at home while giving them features to explore. Examples of metaphors in-clude galleries, comic strips, television

2.12 The FAO Schwarz site has a good mix of metaphor and content.

2.13 Some sites get caught up in their metaphors and forget the content.

2.14 A good metaphor is simple and well executed.

channels, magazines, tabloids, store environments, museums, postcard racks, amusement parks, inside things (computers, human body, buildings, ant farm, and so on), safaris, cities, and cupboards. These can be done well [2.12], or they can be overdone [2.13].

Metaphors are vehicles of exploration. Make it simple, consistent, and easy to get around. A good metaphor puts the switch where you expect it. A bad metaphor makes you learn a whole new set of commands to enter. Well-executed metaphors make it difficult to get lost.

Some sites try to present arcade-like interfaces or physical-space metaphors that rely heavily on 3-D graphics. You find yourself wandering down hallways, through doors, up staircases, and so on. These can work at high bandwidth or on CD-ROMs, but not with modems. Keep your metaphors light and effective.

Metaphors come in all shapes and sizes. This book should inspire you to seek new ways of representing your work, to think outside the constraints of HTML. Think of ways to make your visitors feel at home. Make the metaphor appropriate for your audience. Geologists might enjoy a virtual coal mine tour, but canaries won't.

The trick to presenting a successful metaphor on the Web is to couch it in HTML so that it loads quickly and yet doesn't look cheap. Key visual elements of your metaphor will have to be small enough to reinforce the metaphor over and over again.

Graphic designers are a largely untapped resource on the Web. They learn to use metaphor in school and

When is a Metaphor not a Metaphor?

When it's a simile. Simply replacing words with icons does not a metaphor make.

While international menu bars are very helpful to surfers from other countries, if your visitors can't speak English, they probably won't get much out of your site unless you also provide a translated version. Don't turn words into pictures and call it a site.
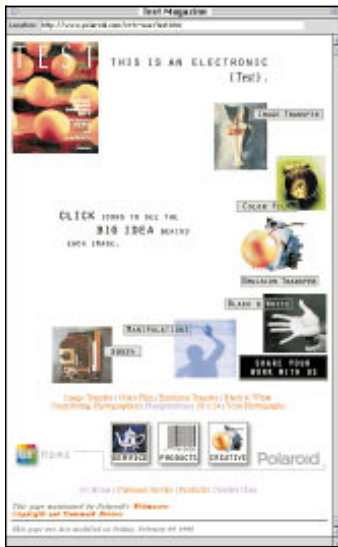
This is not to say you shouldn't have any symbols or icons on your site, or that you shouldn't be clever in presenting them. Icons play a supporting role in third-generation sites. Mixing metaphor and simile requires balance and restraint.

apply those lessons in making everything from business cards to TV commercials. Take advantage of them! Collaborate with a designer rather than trying to become one. Graphic designers who make sites should apply the visual lessons they've learned on paper to creating effective metaphors on the Web. Designers often check their visu-al skills at the door when entering the Web. Don't fall into the trap of making second-generation sites at first, just because they are easier to make. Start with third-generation design and the skillful use of metaphor.
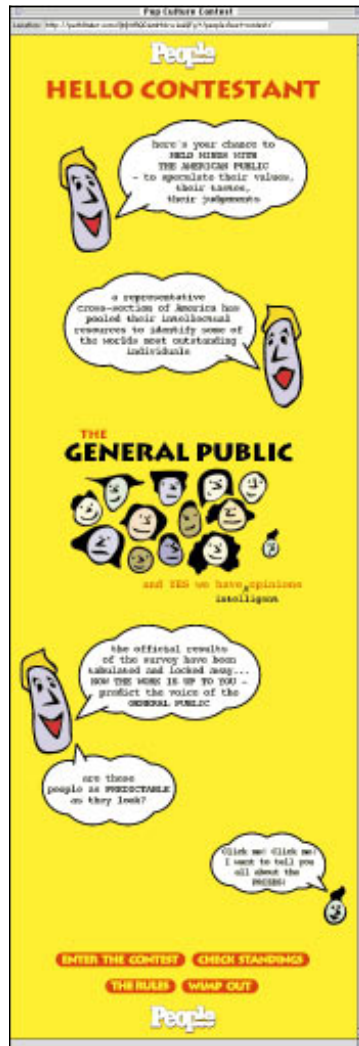
Once you choose a metaphor, stick with it. It may sound easy, but once you get going, there will be tempta-

A

B

C

2.15 A-C Theme-based sites use consistent imagery and artwork.

tions. Keep it simple. A good metaphor helps select your audience. This proposal **[2.14]** for an entry was meant to be mysterious and inviting, setting up a metaphor for the entire site: outer space. (Compare this image to the previous space-town concept.)

Theme: Interior Design for the Web

You don't need a metaphor to make a third-generation site. A consistent theme can work just as well. A theme can be visual or conceptual. Examples of themes: painterly, primitive, photographic, juvenile, art deco, typographic, futuristic, and so on. As with metaphor, themes can either enhance or get in the way **[2.15 A-C]**.

A theme can be almost anything. The best are subtle and consistent. Think of storefronts. Retail stores differentiate themselves by presenting a thematic environment. Some – particularly toy stores – use metaphors (castles, playhouses, and more), but most use colors, textures, lighting, and graphics to uniquely identify their stores.

Commercial interior designers know about theme. They make a space functional and interesting, not cartoonish or repetitive. They must create both tangible and intangible value, pleasing the senses while serving the needs of the business.

Thematic sites are more difficult to create than you might think. There is a great temptation to throw in more of everything – sound, animation, fonts, graphics – leading to clutter and confusion. Using quality photography, for

example, can make a difference on a theme-based site. Using the few colors available to site designers is a big challenge. Defining a subset of those colors to create an individual palette that expresses a particular identity is nearly impossible. A good thematic site is an exercise in subtlety and consistency.

Information-Based Sites

Many sites are not geared toward consumers. In the information realm, sites must satisfy impatient, directed visitors. These sites can't afford to put too much glitter in front of the information. Nevertheless, they can be compelling without using a lot of icons and banners.

Most information-based sites present endless pages of text and bulleted lists, with a predictable home page up front (NEWS | ABOUT US | CATALOG | FAQ | HELP). The best have a search engine enabling visitors to find things immediately, but if a customer doesn't know exactly what she wants, she is lost.

Information-based sites come in all shapes and sizes, but they rarely engage. The best way to overcome the information-overload approach is to establish a simple theme and keep opening doors in front of people. Put content, new information, and navigation on every page. Give them small opportunities to take unexpected turns or see new sections. Use a light theme or metaphor to make the experience worth coming back to.

Information-based sites must be balanced. They must pull in new people, while giving the regulars an easy

The Currency of the Web

A **hit** is any file downloaded. A hit can be a page of text, an in-line graphic, or a downloadable movie or sound file. Thus, if you have a page with ten pictures on it, a person coming to that page will generate 11 hits (if her browser can see images). Many people confuse hits with accesses or visitors, which makes 10,000 of them around noontime sound as though their site is packed with people (when it really isn't). Hits are the pennies of the Web.

An **access** is an entire page served. Accesses (also called *page hits*) are the smallest unit to track, because they can help you determine where people go in your site.

A **visitor** is the true one-dollar bill of the Web. Unfortunately, *unique visitors* are more difficult to define. That's why there's so much incentive to get visitors to register – people are anonymous as they view your site. For the most part, I simply make educated guesses about the number of unique visitors to my sites. Programs are now available to help webmasters track visitors going through their sites.

A **repeat visitor** is the ten-dollar bill of the Web. If a visitor bookmarks your site, it means she is willing to come back. In the mail-order business, such a person is called a *responder*.

If people order things on your site, they turn from visitors into **customers,** the ultimate goal. A customer is the highest level a visitor can attain. A good web site strives to turn a small percentage of random surfers into customers.

Webmasters & Webmistresses

A webmaster or webmistress is the person responsible for keeping the server running properly. Site designers are not webmasters any more than ship designers are first mates.

2.16 StockCenter entices people to see stock indexes and learn about their product while showing stock prices.

2.17 InfoSeek uses the left margin to give suggestions.

way to get exactly what they came for.

One example is the site I designed for StockCenter **[2.16]**. People go right to the information they want. From the left margin, they can choose from a number of possibilities.

InfoSeek **[2.17]**, a popular search engine, uses tables to present the search results on the main area of the page, along with a selection of recommendations in the left margin. This added value to an information-based site keeps surfers coming back.

Information-based sites must offer both browse and search capabilities. Regular customers need a page they can bookmark, preferably listing the features of the site and providing the shortest path to any given page. There should be a search window, or at least a button to a search page, on every page in the site.

One way to present a lot of continually changing data is to use Netscape's frames feature. Frames can help, espe-

cially for presenting large sets of pages that users should compare. Information-based sites do not need frames, but they are candidates for frames. For now, a manufacturer who wants to present hundreds of products side by side might consider frames. I don't think frames are the only solution (at this writing, no web-wide search engine uses them), but designers of sites with large, frequently changing data sets should weigh the advantages and disadvantages of frames. Internet Explorer's *floating frames* might also help on sites like this. *(See "Frames and Framesets" in Chapter 4 for more information on frames.)*

Dynamic sites will be the norm in the information realm. Rather than bookmarking a static page, frequent users will fill out a form telling the site about their needs. The site will go to work for them, sending them e-mail messages when new items of interest arise, providing a custom, made-

40

on-demand page just for them when they log in, and generally keeping their interests in mind as they cruise the site. A good dynamic site presents opportunities to learn new things and see new offerings while trying to meet 90 percent of the frequent surfer's needs on the first two pages.

Design makes an even bigger difference on information-based sites. Lessons from information design, interactive design, architecture, and user interface design will help third-generation site designers create new paradigms for navigating large data sets. While the rest of this book discusses more consumer-based models of design, many of the principles of third-generation site design apply to information-based sites as well.

Summary

People tend to surf with their shortest attention spans turned on. Think of the center of your site as the kitchen, where you're serving meals all day. Once visitors have been lured in by the aroma of good food, they start prowling around, opening cupboards, and raiding your cookie jar. A commitment to fresh daily content is often the best way to attract and keep a crowd. Invite the critics over for a taste. Keep handing out samples and don't present the bill until after the meal. Cook up a good site, and you'll always have a line of hungry customers waiting to get in your front door.

As Joseph Squier, author of The Place, states: "Independent of medium or tool or technique, there are timeless aspects of art that endure. Artists communicate."

Client/Server Computing

Servers are computers connected to the Internet around the clock, serving information. *Clients* are programs, like Netscape (a browser) and Eudora (a mail reader). When I use the word *client*, I always mean a *program* that resides on your computer as you use the Internet.

An Internet service provider (ISP) gives you access to the Internet. A server sits somewhere and sends files to everyone. You don't need to locate your site on the server of your service provider. Your site can be *hosted* on a server in Zurich, but your ISP should be a local company that gives you good access to the Internet for a good price.

The View-Info Command

Netscape's browser has a little-used feature that gives you information about the pages you see.

While most people are used to the View Source command that shows the HTML of any file you see on the Web, Netscape Navigator will also give you quantitative statistics for any given image. This includes the size of each image, both when compressed (content length), and also in memory (decoded size). Add up all the numbers to see how large your page really is.