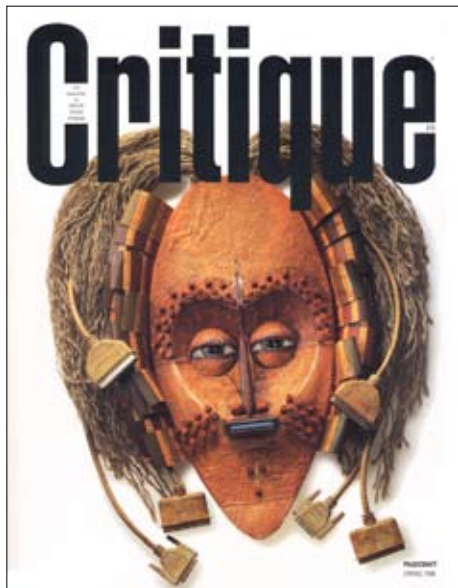


By Erik Spiekermann,  
Loretta Staples and Bryan Dorsey



**www.nagano.olympic.org**

Thirty thousand dynamic, interactive pages of stories and data on Olympic sports, athletes, geography, and events. That's a lot of engineering for a site that was only intended to run for 16 days. The sheer mass of IBM's nagano.olympic.org, developed with Studio Archetype in San Francisco, leaves you breathless. Why did they do it? Who did they do it for? And how should a design firm approach a job like this?

Clement Mok, founder of Studio Archetype and new-media pioneer, has volunteered what may be the deepest, most complex, non-commercial site of the year for our critics, all new-media pioneers in their own right, to pick apart.

*Erik Spiekermann is professor at the Bremen Academy of Arts, Vice President of the German Design Council, and President of the International Institute for Information Design. After studying art history in Berlin (without success), Erik moved to London and began a career in typeface and information design. Back in Berlin by 1981, and working with various partners, he focused on design for the emerging computer graphics industry. In 1990, Erik opened MetaDesign with Uli Mayer and Hannes Krueger, serving Adobe, Apple, Audi, Berlin Public Transport, Dusseldorf Airport Volkswagen, and Texas Instruments, among others. Today, MetaDesign is the largest design firm in Germany, with offices in Berlin, London, and San Francisco. Erik has written four books on type and typography, and lectures on design all over the world.*

**Erik Spiekermann** One of the nice things about this site is that although IBM sponsored it, it's not in-your-face IBM. It's in-your-face Olympic information. The site is just a delivery engine for a wonderful database on the back end, which someone is feeding with loads of results, live coverage, and statistics. The information is easy to use and very explicit, which would make it amazing for sports fans, but they probably don't have the technology to get in. The audience would have to be people with a professional interest in the information, i.e., journalists. And it's all there, in depth—especially background details on the actual sports. I'll bet there's been a lot of cut-and-paste going on.

I like the structure. It's very ordered and linear, but when I first entered, I didn't know what to look at. (I'm not a natural user, because I'm not a winter sports fan—even if the German team did do the best.) One thing I like to see on every site is a plain typographic table showing all the leading pages in the site, like the contents pages of a book. Here you get the main topics on the first page, but you have to go all the way in to see how much depth they offer. Sometimes it's good to hide this kind of depth, because it can scare people off. But if you're there to find something specific, and not to play about, you'd rather know what's in the site before you enter it.

On the startup page, the conventions that indicate interactivity are fairly mixed. Search, Schedule, Image of the Day, and so on in the left column, and the circled day-numbers near the top are underscored, which means "clickable." The tabs at the top also mean "clickable." The things at the bottom are both underscored and have buttons next to them. I would prefer fewer devices, but I wonder if you would be left with enough hierarchies.

You need hierarchies: the top hierarchy (the tabbed topics) is for subject areas. The underscored list is for special features that are repeated in every part of the site. And the buttons at the bottom represent general, functional pages. If

anything, there isn't enough distinction between them.

For your average user this is probably a fairly subtle interface, but I would have preferred it to be even more subtle. Take the color-coding and the gradients. Color comes free on the Web, so you have to use it to make distinctions, but they are using a mix of colors and tints. And the color-coding isn't used consistently. They could have speeded up the downloads by using fewer bevels and shadows, but people are used to seeing bevels on interactive stuff, so buttons have to be beveled. Type has to have a slight shadow on it so it floats a little. Tabs have to have rounded edges and shadows.

We once tried to do a bevel-free interface. When we tested it, people didn't register our flat things as inter-active buttons. Any psychologist or semantics expert or information designer will tell you that dimensionality isn't necessary, but it's become the default. Some nerd designed the first interface that way back in the '80s, and we're stuck with it, just like highway signage. Change it, and everyone would crash.

For my taste, the repertory of graphic devices here is too large. There's a pseudo-dimensional gradation inside the tabs; a corrugated pattern behind the shiny Olympic Winter Games logo; semicircular cutouts; and a lozenge around Select a Day. Sometimes there are over two dozen small, medium, and large tabs or cutouts on a page, which get in the way. However, as you go deeper, the clutter begins to disappear.

Let's go to Countries. We've got a new color here, a distinctive teal. Comes up looking lurid on my screen, but you never know. And look—3-D Quicktime V.R. (virtual reality). Click and drag on the revolving globe to pick a continent. Cool, but awkward. It takes a while to figure out, and it's hard to mouse on a moving target. If you pick the wrong place, you have to wait for a map to download before you can go back. Each map leads to another map in closer detail. This is nice, but the downloads are slow because QuickTime

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-Erik Spiekermann

Loretta Staples teaches both graphic and interactive design at the University of Michigan School of Art and Design, where she is an assis-tant professor. One of the first women to focus on interface design, she worked for Apple Computer before starting her own consultancy, U dot I. She has helped to develop special-ized applications, conceptual models, and prototypes for such emerging technologies as interactive television, as well as designing multimedia and Web structures and inter-faces. U dot I clients have included Northern Telecom, Paramount Sony, and Stanford University. Loretta writes about the relationship between digi-tal technology and visual rep-resentation. She is inter-ested in human cognition and in collaboration-and not inter-ested in either technology or information for their own sake she can be reached at loretta@umich.edu

is running.  
Now let's go to Sports at a Glance. The tables here are what most impressed me. All of them are incredibly legible, even in the system-default font, which is what we have here—notice the blue underscored type for links. I'm going to choose a smaller system font in my browser, and see how it affects this chart. It could mess it up, because the yellow bars are sized according to the number of lines in the text. The depth of that frame will change when I change the font. And it still works great.

I like the colored bars because a) they look good, and b) they guide the eye, making it easy to see which category the numbers belong to. And you couldn't have them without the applet that figures out the depth of the frame. Very clever programming.

Unfortunately, the bars are bordered by an orange line, which is redundant.

Let's get some data. Click ... and it tells me "Reporting process is in progress." Odd. The Olympics ended a week ago ... I've just realized that the date on my window is March 2, which was last week. I must have selected March 2 on the startup page. It seems you can only get information for the day you select: the system isn't bright enough to realize the day has passed.

The most useful parts of this site, for me, were the deep technical details and great drawings about the sometimes obscure sports. These detailed description show much a four-person bobsled weighs, how they grind the sledges, how long the jump is—were fantastic for an information sponge like me. I almost didn't notice I was on the Net. It was as good as a print job, but with added speed and time-based elements.

One more thing—Clement made a clever move in using a typeface I designed (ITC Officina), which not only endears the site to me, but makes it look way cool.

**Loretta Staples** Design is about tradeoffs: you get one thing by giving up another. So, though I'm looking at this site critically, I'm very aware

that tradeoffs have been made—and they've been well negotiated. There is also definite attention to detail.

It can be hard to strike a balance between consistency and variety across a site; here they've varied the colon from section to section, and introduced different formats for different kinds of content, both of which help cue the user to what's going on. My main criticism is that the site takes forever to download. I also had problems with applets that didn't work or didn't load. Most of my comments have to do with the way the information is encoded. The first thing to consider is basic semantics—the simplicity, the understandability of the visual language. The key task in Web design is to differentiate between interactive controls and display items.

Some of the rules can be violated in a smaller site. But since this one is so overwhelming, with so many options at the top level and so many kinds of information, it needs to give the user more orientation. The front page has to give a sense of the deeper structure, and that structure should continue to be easy to see on the secondary pages.

One way to do this is to give less information. (This is tricky—sometimes less is more, but sometimes less is less.) The front page should be simpler, with fewer choices, fewer clickable items, fewer images, headlines, and information chunks.

However, it does do a good job of simplifying the topmost levels of access. They've used visual tabbing to represent sections common device—and they've done it well.

Other common devices are lists and series of buttons. All of the above are used here, which is confusing. The more classes and kinds of controls you have, the more decoding you require of the user.

The immediate struggle is to find out whether there are any redundant links. For instance, Search is listed on both the sidebar and on the bottom. Does each go to a different place? A lot of users don't expect multiple pathways to a

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*A lot of users don't expect multiple pathways to a single thing. That's what makes hypertext so confusing: it creates a burden on the user to decipher what's going to happen next.*  
-Loretta Staples

*The Countries section begins with the small screen below. Here, a click on the revolving globe lets you zoom in on the country you want to know about, culminating in a data-rich page such as the one for China, at left.*

*If daily events interested you more than background material, you'd go straight to News. The contents page above listed late-breaking items during the Olympics: clicking through would take you to stories and display photos, and live*

single thing. That's what makes hypertext so confusing: it creates a burden on the user to decipher what's going to happen next. It's interesting that the tabs are blue on this page, and only change when you get to the content areas. I appreciate restraint in the use of color (in early multimedia, if they had 16 colors, they'd use 16 colors), but in this case, the fact that color-coding is not used at the top level is a flaw.

In Search, tabs are used again, which ties the interface back to the main page. But again, they should have made the tabs on the front-page the same colors as the tabs in Search. It does help that the tabs are in the same left-to-right sequence in both places.

Let's go to Sports, and see how deep it goes. I'm picking the cross-country ski icon. While it loads, let's look at this contents page. I do have one purely aesthetic criticism: the small, blue-and-white sports icons are hard to discern. They could have been drawn more legibly—though this isn't a terrible flaw because they have rollover labels, and the differences in their contours distinguish them well.

Again, there are many classes of controls here: not only do we have tabs at the top, and a row of buttons at the bottom, but we have icons, round buttons for Sports at a Glance and History of Sports, plus this anomalous Snowlet's Eye. Some people will appreciate having so many choices, and others will be confused. It depends on their cognitive style; but in general, when people have more options, they have more to think about and decide. Oh, I just crashed. And the cross-country page was just coming up. I'll have to restart...

While we're waiting, let's talk about depth. One challenge in cyberspace is that you have a lot of K to cram stuff into. And one of the ways people deal with this is to cram stuff in. Comprehensiveness can be a virtue in certain contexts, but I think some editorial restraint is in order.

The Web does afford users the ability to get

the information they want when they want it, and to ignore what doesn't interest them. But there's another element: motivation. Anyone who is interested in the Olympics could use this site: if they're interested in the Web and in Web space, they'll be motivated to gain access to the information buried in the site. But others might not be as motivated. They'll skim what you've made available, and leave.

So, while the fact that this site is purely informational is legitimate, given the nature of the event, there may have been ways to scale the experience. And that brings up an important issue: how do you support both the people who want surface information and those who want to go deeper?

This kind of deep hierarchical structure can do just that. Top-tier information for the Olympics would be the latest standings: what events are on today, what has already happened, and what were the results. News gives you exactly that time-based material, and it was on the second tab. (The tab order was quite thoughtful.) This is exactly where a moderately interested person would go, and it's very near the top tier.

Now I'm back in. I'll select cross-country skiing again ...I hate to say this, but my machine is frozen. I think we've reached the end. But it's been an experience of Olympian proportions.

### Bryan Dorsey

This site must have cost upwards of a million dollars. Some of that money would go for design, engineering, hardware, and advertising, but most of it would go for content development. As you can see in this site, as budgets go up, so does the amount of calculation you can do on the back end.

The difference between the front end and the back end is the difference between design and technology. The front end is the client-side stuff that's happening on the user's browser. The back end is what's happening on the server, such as the

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The Sports page, above, first launches you to a base page for each sport, such as those at left and right for cross-country skiing and snowboarding. Each sport has its own Events Tracker—an interactive chart with rollovers to give you

database on this site that remembers which sport you've chosen, and gives you links to all the related material. Look at the Events Tracker in the Sports section...Hey, I just crashed. This is a pretty advanced site, and the technology used to pull it off is unpredictable.

I wish there were two ways to enter this site. There's the person who wants to get in and get out. Find out what day he's on, who got what medals, maybe jump into a sport, check out a schedule, and bail. And then there's the other guy who wants to customize his own 14-day experience.

There are good tools in here that would let the second guy do what he wants, but they're hidden. It would be nice if, on the very first screen, you could be told "Track your own athlete, your own sport, for all 14 days. Find out how-click!" That could take you to a screen with a brief animation that explains what you can do and how you can do it before you go in. A lot of people don't understand what a rollover or a click-and-drag applet is—this would be the place to explain. Aw, my computer just crashed again.

I don't know why it's crashing so much, but any time we talk about using Java around here, people cringe. Take that Events Tracker. It has three tabs, with 19 pieces of information in each tab: let's call that 60 pieces of information per sport, for 20 sports. That's 1,200 pieces of information to organize. They're organizing it dynamically, using Java to pull data out of a database and build charts. But it's not worth it. I prefer lo-tech solutions, where all the pages are pre-built in HTML before the site is launched. You can still update the copy and images and rankings, you just don't automate it. We do this because the Internet is designed to display HTML pages, not to serve inter-active applications and applets. HTML pages will come up ten times faster than

an applet any day. At the same time, this kind of technology—little Java applets—helps you sift through the topic you've selected. It gives you links to everything within the site that has to do with, say, snowboarding. That helps to facilitate the user's experience—as opposed to printing it all on one big HTML page, and making you search for it.

They've been considerate of lo-tech users in other ways. They've designed for a 600—by-400-pixel screen so the main categories—Today, Welcome, News, Venues, Sports, Athletes, Countries—will all be there with no scrolling. And it still works if you pull the window out larger. Luckily, they're not requiring you to have any plugins. And since they've made it work with 3.0 Java-enabled browsers or higher, and we're up to 4.0, they'll get both the previous batch and the latest batch of users. This is the standard today.

Let's go back to that Events Tracker in Sports. When you pick a sport, you get a page with a tabbed section that gives you rollovers for every sport, pointing out when, where, and who. Select one of those, and it'll launch you into the zone that has what you're looking for. Going back to the home page, when I select the blue Sports tab, a yellow tab comes up on the next page. It would have been nice to see Sports in yellow everywhere, to give some visual cues to the way the site works from the very beginning. This becomes the visual language. There's a lot of information here, understandably, and though it's well organized by form and sub-topic, there are so many topics that I don't know where to go. What's the difference between Sports and Athletes, or Nagano and Welcome? What's the difference between Today and News? It sounds like these pairs cover the same things.

I do like the day-monitor at the top (the blue panel with the numbers I through 16 in circles). I

**Bryan Dorsey** and his partner **Mateo Neri** founded *cow*, before finishing their degrees in graphics and packaging design at the Art Center College of Design in Pasadena. Now based in Santa Monica, California, *cow* specializes in interactive communications. Since receiving their B.A.s in 1993, Dorsey and Neri have gone on to develop successful non-linear and non-print marketing business, and branding tools. Their clients include such Fortune 500 companies as Citibank, Kahlua, Motorola, Mercedes-Benz, Nike, and Pioneer. They've also designed socially relevant communications for the international Olympic Committee and their newest client, the Florida Youth Anti-Smoking Project. *cow* has already received over 20 awards for interactive excellence, including the first CLIO ever awarded to an interactive project.

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wish it stayed up throughout the site, so I could always know what day I'm in, whether I'm learning about a sport or watching a live feed.

This site really could have been more organized: not in regard to the content, but in regard to the interface choices. Imagine trying to drive a car that has a gearshift one time, a pulley the next time, and buttons the next. That's what's happening here. I counted 13 interfaces, and I know there are more. When you're designing a site, you have to ask, "What are the different data types?" Okay; we have copy, captions, icons, photographs, and photographs with copy. All different kinds of templates. Different interfaces will come out of different sections, based on the kind of information each section contains. It's a good idea to pick the one that works the best for the most cases, and tweak it to work for everything.

Let's look at the 1924-1998 timeline—a cool little interface. This timeline-with-a-tab system would have been a great interface for everything from this history section to Snowlet's Eve, which uses a grid as well, to Kodak's Pictures of the Day. All of these carry rectangular photographic images. While I'll grant that IBM may have been showing interface tools down their throats, they could have solved all three of these sections with a single interface, and at least cut that thirteen to eleven. They did a good job with their tab system in the main pages, but when you get down to the core content, the interface is all over the place. There are so many different interfaces in the center of each page that it kills that consistency.

For instance, in that same timeline, let's click on 1956: Cortina D'Embezzo. Suddenly we get a totally different interface: an arrow for 1956, a dot for gold medalists, one green arrow here, two green arrows there. The miniature-icon menus just keep changing. First they're on the bottom, then they're on the right, then they're on

the left. Then, in Sports, the icons (which in themselves are kinda nice) have rollover that's one kind of interface. Then there are little red buttons at the bottom that link you to another page. If you're going to have a toolbar controlling a center stage, which is what's happening here, don't put more interactivity in the center stage.

Also in Sports, if you click an icon you get sent to another page, so you can't see where you've been or where you're going. They could have attached a drop-down menu to the original Sports tab instead, so you could see: how many layers there are, or brought in a separate window for the new content, leaving the main window underneath. That way, you could look at one thing at a time, while never being more than two clicks away from anything else on the site. I'd also link each piece to its sisters, so that if you were reading details about a sport, you could jump to related pieces in News.

Typography-wise and color-wise, this site is definitely "winter fresh." Considering all the information they had to deal with, there's a nice use of the grid. In Today, they've used some nice asymmetrical curves, so the page isn't so rectilinear. The pin-striping everywhere gets annoying, though I like the tabbing and icon features they used throughout the site, but I would have produced it with one-third fewer interface components. Still, this is a big, beefy site, so I can't say enough about the fact that it's there, it's up, it's running, and it's got all the information they promised it would have.

### Studio Archetype's team

We started building the Web site for the Nagano Olympic Games a year in advance. Our oaf was to make it a captivating, interactive guide to the entire experience. We were given an enormous

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### www.nagano.olympic.org Team

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#### CREATIVE

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##### DESIGNERS

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#### PRODUCERS/

##### PROGRAMMING

Peter Merholz  
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amount of content to work with, in both English and Japanese, including travel information, event schedules and reference material on all the athletes, sports, and countries involved.

Our biggest challenge was to present all of this information in a way that would be useful to millions of users around the world while capturing the Olympic spirit. We responded by creating a consistent visual language, a flexible architecture, and inter-active interlaces, based on IBM tools and technology that make getting information out of tire site fun and easy.

Our final design allowed users to keep track of events with an interactive schedule, look up background information on sports and athletes, and receive personalized, near-real-time news coverage of events in Nagano as they occurred. Kids could enjoy animated games and learning tools, as well as post their own stories and pictures on the site. Continuous updates kept users in step with the pre-games build-up, the opening pageants and ceremonies, and the actual competitions.

On the technology side, IBM's challenge was to set up a network of servers and systems in Nagano to integrate a Results System, Info'98, the Web site, the Commentator Information System, Games Management Systems, and the World News Press Agency System. These systems were built and maintained by over 800 on-site IBM specialists from 17 countries.

It was the largest and most comprehensive Internet-based technology application ever built. It was also the most heavily used, receiving nearly 650 million hits from around the world during the 16-day event. Altogether more than 4.5 trillion bytes— more data than all of the text in the U.S. Library of Congress— were sent out to fans, the media, sports federations, national Olympic committees and athletes. — *Studio Archetype*