Joseph Campbell wrote, “What people seek is not the meaning of life but the experience of being alive.”

This provocative view challenges us to look inside ourselves and at the work we do. What does it take to provide enlivening experiences for others? I find that professional training and years of experience are not enough. By themselves, they seem somehow inadequate in our evolving world, in which design and technology come together. What is vital, I have discovered, is our humaneness: who we are and the ways in which we express our fundamental human qualities in our work. When these qualities are included as an integral and natural part of the design process, everyone benefits: those for whom we are designing, as well as ourselves.

As part of my own inquiry into this question, I have delved into the designed world around us. I have been listening to and learning from other designers and the people who use their designs. In the process, I have looked beyond products that use electronic technology and broadened my view to include all sorts of objects and places with which people interact. I have revisited two products we have designed at Alben+Faris and I have explored designs that others have created. Each has given me new insights into the design of human experience and revealed unforeseen opportunities.

In Search of Quality of Experience

As furniture designer Bill Stumpf said, “The sources of invention and new design knowledge are not in the design cookbooks and menus, but out in the vegetable patch.” The examples that follow show how staying grounded in the real world enables us to design in appropriate and sometimes compelling ways. At the center are real people, not design theory or abstract, disconnected concepts. Designing from this center, from the heart, allows us to be accountable.

for the role we play and the impact our work has in the world.

To make the point more obvious: Look at how design contributes to the frustrating and unnerving experiences you have as you go about living your life. Have you ever walked into a door? Been held hostage by your seatbelt? Tried to program your kid’s sports watch? Trusted a computer more than yourself? Visited a Web site that had an amazing resemblance to a maze? Been trapped in voice-mail hell? These things happen when there is a disconnect between the designer and you. To prevent them, designers need to get in touch and stay in touch with the people they are designing for, even after the product ships. As interaction designer Harry Saddler states, “Caring about people, discovering and responding to their needs and tasks, is not an option. Interaction design is design that people participate in long after our job is done.”

At the heart of interaction design, and design in general, are people who explore, play with, learn from, and respond to all sorts of things we create. The question is: Are their experiences successful and satisfying? By experience, I mean all the aspects of how people interact with something—how well they understand how it works; the way it feels in their hands; how they feel about it while they are using it; how well it serves their purposes; the way it fits into the context in which they are using it; and how well it contributes to the quality of their lives. If these experiences are engaging and productive, then people value them. This is quality of experience.

Just What Is Interaction Design?
Positioning people at the heart of interaction design always causes me to ask two nettlesome questions. What is this emerging profession called interaction design? And in what ways are people and the quality of their experiences made an intrinsic part of the design process?

Defining effective interaction design is a complex and difficult task. I found this out when I served as one of the advisors and jurors for the ACM interactions Design Awards. These awards recognize products that provide people with quality experiences. One outcome of this effort was a set of criteria that attempt to define successful interaction design. These include understanding of users, an effective design process, and a final product that is learnable and usable, needed and desired, manageable, appropriate, mutable, and offers a satisfying aesthetic experience. Our intention was to laud products whose design is undertaken and developed as a whole. This is in contrast to other competitions, which award certain aspects of design (such as industrial design or creative excellence) as distinct from the whole problem and separate from the user’s experience. The awards set a high standard, reflecting the goals and aspirations of the interaction design community.

Designers are using the criteria in their work and sharing them with colleagues. Teachers are presenting the criteria for discussion and exploration with students in design courses. The criteria continue to form the basis for judging the awards, but they are also intended to contribute to the emerging conversation about what interaction design is and what purpose it serves.

In the time that has passed since the criteria were developed, I have had the nagging feeling that something was missing. We defined the things that contribute to effective interaction design in rational, logical terms. Perhaps because of this, I noticed that people often miss the context by severing the criteria from the heart of the matter—quality of experience.

Sharing Our Stories, Shaping Our Experience
I wanted to look more closely and define more clearly what quality of experience means. I offer this inquiry not as a formula, nor as an answer, but as a work in progress. Its form is a collection of stories—of dairy farmers and airline maintenance workers, grandmothers and teenagers, caregivers and breast-cancer survivors; and of the designers, landscape architects, entrepreneurs, and artists who gave these people a certain quality of experience. Their stories make me appreciate the value that fundamental human qualities bring to our work: vision, discovery, common sense, truth, passion, and heart.

I am deeply grateful to all those who have shared their lives with me, revealing sometimes humorous and joyful events and sometimes painfully personal moments. Their unhesitating willingness to allow me to write and talk about them has given me the honor of being their storyteller.

As I was writing this, I found a book about the Zuni people, who believe that it’s important to hold sacred the stories that are given to you and to give them to those who can learn from them. Some people need stories more than food to stay alive, they say. And so I offer this collection of stories to you.

INTERACTIVE DESIGN
      AT THE HEART OF INTERACTION DESIGN

Vision is the ability to see around corners and through walls and beyond the horizon. It means being able to soar through the eye of a needle, to use the mind's eye, and to know that not all is in the eye of the beholder.

Vision is making the invisible visible and tangible and audible, creating experiences for our senses, our spirits, and our minds.

It is the ability to see what is, what has been, and what could be—and having the perspective, imagination, and insight to make it come true.

“\text{\textit{I would use it on Fridays or if I were feeling blue.}}”\text{\textit{}}

Three years ago, Apple Computer invited Alben+Faris to envision how the tried and true “look and feel” of the Macintosh might evolve. We had worked on the design of Apple’s instructional CD-ROM, “Making It Macintosh: The Human Interface Guidelines Companion,” so we were more than familiar with this operating system interface. Taking it to the next level was an important and intriguing opportunity.

Early in the development of the design strategy, we took a close look at the way people related to their Macs. Over the years, people (and certainly designers) have enjoyed love affairs with their Macs, viewing them as allies and partners, as well as easy-to-use tools. Mac users are often devoted to their computers, naming them things like Duckie and Pleasure Island and defending them fervently. Even when people describe the Macintosh, they use biological terms. They say their Mac is like a mother’s face; they talk about Macs being in the bloodstream. This kind of intense allegiance of humans toward machines is not unprecedented, but in the high-tech world, it’s certainly remarkable.

So what is it about the Mac that engenders this kind of feeling? Perhaps it goes back to the machine’s fun and humorous personality, originally symbolized by that happy Mac that appears on boot-up. We leveraged this persona when we designed the symbol for the Mac OS by adding an important element—the user. The interplay between the face of the computer and the profile of a person reinforced the idea of partnership and drove home Apple’s message of individual empowerment. Apple is known for its pioneering, easy-to-use interface. But by 1994 its lead had eroded. We needed to enhance it by creating a range of new appearances that provided engaging interactive experiences.

From our perspective, it was essential to respect the design integrity and credibility of the Mac OS, while taking it to another level. We believed that if Apple were to step out in front of a marketplace of look-alike competitors, we would have to break away from a one-size-fits-all approach. This became the core concept of our design vision: to allow people to personalize the way their computers look, act, and sound. Our strategy was to create customizable appearances by integrating animation, sound, and visuals to provide richer, more sensual experiences, meanwhile augmenting users’ understanding of the Mac OS.

We bet that people would welcome the chance to change their computing environment to suit their own aesthetics, moods, tasks, and environments. This turned out to be true. In customer focus groups, people generally approved of being able to personalize their computers. And not surprisingly, when a range of appearances were presented, no single look won the popularity contest. Each appearance has its own spirit and style but maintains the Macintosh “feel”—the fundamental geography, semantics, and behavior of the interface. Interestingly, the peculiarities of each appearance enhance understanding of the basic
Macintosh interface in many ways—for example, by providing richer visual and audio feedback focus for objects and processes.

The first appearance we designed is called Gizmo. Using it feels like riding on a roller coaster or tearing down a ski slope. It’s zany, funny, and surprising. Our vision was inspired by all sorts of wacky things, from striped barber shop poles to rainbow-colored candy to fireworks. The windows consist of yellow squiggly lines, balls and stripes, and exploding “close boxes.” The sounds of whistles and whooshes abound. Flipping menus contrast with ovals slowly undulating on the background.

We asked people when they would use this appearance. Some thought it would be great for kids. Others said they would use it when they wanted a stimulating environment—when they were working on a routine task, such as word processing or organizing files. “It’s a boredom breaker,” pronounced one customer. “I would use it on Fridays or if I were feeling blue,” said another.

Another appearance we envisioned early on left the man-made world behind and transformed the traditional gray rectilinear desktop into a natural scene in which nubby twigs formed the windows, eucalyptus bark covered the background, and icons were inscribed onto stones. Working in this environment, we imagined, would be calming and completely uncomputerlike. However, our initial design sketches were too unconventional and ambitious. Many of the objects that represented interface elements—branches, bark, leaves, and stones—were too irregular in shape to be implemented. Designing within the extremely restrictive technical constraints was a huge challenge for everyone on the team. There was a lot of give and take among the software engineers and the interaction and graphic designers from Alben+Faris, Apple, and elsewhere. Our collaboration, combined with a willingness to think way outside the box, created some exciting solutions.

Traditionally, standardization, simplicity, and stability have been user interface goals. Our intention was to balance these values with diversity and expressiveness. We imagined the experience of using a computer as less like using a machine and more like interacting within different worlds—like a walk in the woods or taking a wild, fantasy ride.

The Mac OS will be a computing environment that allows people to choose what works for them. Instead of having to conform to the confines of the computer, they will work and play and learn in a way that better fits their needs and wants. These customizable appearances take the Mac OS beyond the utilitarian operating systems currently available. We hope they will benefit Apple, as well as its customers. All this will soon become a reality. It’s a small step, but one we think points to the future of humanized technology.
Discovery has so many aspects to it that I couldn’t come up with one word that covered all of its complexity. So instead I’ve split this quality into three parts, each with a dedicated story.

The first aspect of discovery has to do with learning—being inquiring. Seeing what is there and what is missing. In order to do this, you have to get in touch with the nitty-gritty. Bring it down to earth. Get your feet wet and your hands dirty.

“\textit{I need to click and go right to it.}”

Just because we were frequent fliers didn’t mean we understood much of what life was like for people who keep airplanes flying. To work with Apple on a portable electronic device for airline maintenance crews, we needed to do some learning on the tarmac.

Every time a plane pulls into a gate, the clock starts counting down. In the space of an hour, the crews that are charged with performing routine maintenance checks on commercial airliners must complete their work. Otherwise, a fine is levied on the airline for every minute the plane is late for departure. Achieving a balance between managing worldwide air traffic patterns and making sure planes are continuously fit to fly is a tall order.

A huge Boeing 747 contains thousands of moving parts. The maintenance check on a 747 starts in the maintenance ready room (or the “info shack”), where the maintenance crews look up the latest operation and troubleshooting information from a collection of hardbound books and microfiche. They copy and print out this information and bundle it together with maintenance-check forms before heading out to the waiting planes. Because airplane manufacturers constantly modify planes, these printouts include daily updates. More often than not, the mechanics end up waiting in line for their turn to print before they can hike out to the plane and begin their work. If, while working on the aircraft, they uncover a problem that requires additional information, they have to hustle back to the shack, which is usually far from where the plane is parked. It’s the maintenance manager’s responsibility to decide if a plane leaves the ground or is held back for repairs. If time is short, a malfunctioning coffee machine may go unrepaired until the next destination; critical electrical, mechanical, and hydraulic problems are, however, immediately addressed by a repair crew.

Alben+Faris worked with Apple to design a system-level interface for a device intended for situations like this. It was to be used for performance support, field automation, and just-in-time training. The device was part of the Sweetpea line of personal electronic devices, developed in Apple’s Personal Interactive Electronics division at the same time that its sibling product, the Newton, was being created. Our design team did field studies and prototype testing to scope out potential uses for the device and to discover what kind of system software, interface, and custom applications it needed.

We positioned the United Airlines maintenance workers at the center of the design process. What did we learn from them? Here are a few highlights.

We discovered that the crew needed access to enormous amounts of information while on the tarmac. Early in the process, one of them pointed to a large sheaf of papers and explained, “\textit{The check on the tires—I need to click and go right to it.}”

“\textit{Show us what you mean},” our team said.

“\textit{Well, if I’m doing a service check on the tires...}”

Hand-held CD-ROM player
Apple Computer, Inc.

Interface design team:
Apple’s Advanced Technology Group (1993):
Michael Arent, human interface manager
Richard Mander, usability engineer
Ian Small, software engineer
Lewis Knapp, hardware engineer
Bart Andre, industrial designer

Alben+Faris:
Jim Faris, graphic and interface design
Jeff Tycz, graphic and interface design

Photos courtesy of Apple Computer, Inc.
and a warning appears with a reference to the maintenance manual, I want to be able to click and go right to it."

He was referring to the need to search and jump between massive documents to find critical information quickly. His request pointed like a neon sign to an obvious interactive solution. His words became the mantra of the team.

Another telling moment came one night at San Francisco International Airport, where team members were observing a mock maintenance check in which our first hardware/software prototype was used. Two maintenance workers, Fred and Joe, took their usual places in the pilot and copilot seats. Fred began his normal check, supported by the prototype. Our team huddled behind him, listening carefully as he explained the procedure. Suddenly, a blinking red light came on.

"I've never seen that light before in my life!" Fred exclaimed. He had no way of anticipating that this would happen and, as a result, the information he needed was not in the printout he normally brought with him.

After a brief, reflective moment, Fred turned around and looked at our team, held up the prototype, and said, "If I had this thing, it would be perfect! I'd just look up this blinking light and see what the problem was." In that rewarding moment, it was clear how valuable the device could be.

Sometimes, the lessons we learned were obvious: Maintenance workers have dirty fingers. Because of this simple bit of knowledge, we decided against an off-white hardware skin and eliminated the touch screen, reworking the interface to be pen-based. And maintenance people need their hands free, so we added a neck strap in the final industrial design.

Early prototypes were intentionally rough, to encourage feedback. We used buttons labeled with masking tape. We fitted hardware into a tackle box with an electronic tether to a Macintosh. What mattered was that the software and hardware were functional enough to simulate the actual experience. This applied to the graphics, too. Sketchy graphics were perceived as a "style," so we used schematics and simple graphics in an utilitarian way as possible.

We profited from including the maintenance workers in the development process, allowing their street smarts and experience to inform the team’s design on generations of prototypes. This project helped us discover the benefits of participatory design. It changed our sense of how design takes place and fits in the world. For instance, instead of designing from a set of specs, we studied the raw, unfiltered videotapes of the maintenance crew at work, which was far more instructive.

Because we had gained a better understanding of the nitty-gritty reality of life on the tarmac, our interface design benefited from real people working in real environments, and they, in turn, benefited from design.

The second aspect of discovery means to be surprised, like a bolt from the blue or an unexpected tap on the shoulder. Either way, you become aware of something you hadn’t known before. But for it to sink in, it’s often necessary to give up your concepts—to be open, with no expectations.

“Sometimes I feel disoriented.”

Lately, I’ve been asking a lot of people, “Where do you go on the Web?” and “Why do you love the sites you love?” One of the people I spoke with was my favorite 17-year-old, Nick Arent. Nick loves rollerblading, hockey, karate, and computers.

“When you surf the Web, Nick, where do you go?” I asked.

“My friends and I like to surf together. We like to go to sites that give us information on computers, but I guess that’s probably not like most kids. We like the chats, and my friend Eitan likes the sites about road bikes. We really like the virtual-reality sites like Planet Italy.”

Planet Italy was commissioned by Italy’s largest TV network, RAI, to create a new Italian presence on the Web. Its companion world, the cyber-plaza or Cyberspazio, features views into Italian culture,

Cyberspazio, Planet Italy Web site
www.construct.net/projects/planetitaly
Construct, Inc., San Francisco, Calif.
Screen shots courtesy of Construct, Inc.
Lloyd and Disa McPherson are dairy farmers in Stuarts Draft, a small town in the Blue Ridge Mountains of Virginia. I read about them in a Wall Street Journal article on farming the Internet. The author, Thomas Weber, wrote, “In between milking cows and tending to other chores, they visit the World Wide Web to monitor prices for the grains they feed their Holsteins and Jerseys.”

After rereading the article and studying the picture of Lloyd and Disa, smiling beside their computer and a framed picture of a cow, I decided to take a chance and call them up. Lloyd answered the phone and I introduced myself. “Oh,” he said, “You want to talk to Disa. DISA!” he boomed. I explained to Disa that I’d seen her mentioned in the Wall Street Journal and that I was looking into how people use the Web.

“You’re famous!” I noted.

“Isn’t it amazing?” Disa responded. “Here we are dairy farmers, and suddenly we’re in the papers and on TV. They’re doing a special on us, you know, on CNBC.”

“I want to hear about it. What do you use the Web for?”

“We check prices on corn, cottonseed, and hominy. I check the weather, but frankly it’s no more use than what you hear on the news, so I don’t bother with it much. I go to a newsgroup, Dairy-L, where I ask questions about disease. We share information and it helps me keep an open mind. And I like to visit realbutter.com, where I can get recipes that use good dairy products. The heck with margarine or oil! I’ll send you the URL. Oh, and I love the bookmarks. They’re real handy.”

“When do you surf?” I asked.

“After lunch. It’s the only time I can get on easily.”

Nick’s experience was a revelation to me. As a designer, I spend a lot of time devising ways to help people navigate hyperspace, with the intention of preventing them from ever knowing that frustrating feeling of being lost. To discover that some people like to be disoriented while still feeling in control, was a possibility that would never have occurred to me. At first, Nick’s values and objectives seemed contradictory to mine, but after exploring Planet Italy myself, I discovered, much to my surprise, that I enjoyed it, too.

The third aspect of discovery means to see from a vantage point other than your own—to understand another point of view. To see through their eyes and walk in their shoes.

“He’s a tractor man.”

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“When do you surf?” I asked.

“After lunch. It’s the only time I can get on easily.”

All the other farmers are on at night, after they’re done in the fields or with their chores. Generally, Mondays and Tuesdays are the best days.”

I took a look at some of the sites that farmers frequent. At Frito-Lay’s front door, I was greeted by a boisterous fanfare. Brightly colored, dancing graphics beckon toward Fun Stuff or Dream Site while a parade of product logos, from Fritos to Funyuns, appears in the middle of the screen.

At the bottom of the page in smaller type is a button: Suppliers-Vendors. Once clicked, the visitor is abruptly transported to farmer.com, an austere environment entitled Corn Marketing. Here, farmers can visit Dekalb, Pioneer, Weather Visualizer, and the Chicago Board of Trade. Or they can track their transactions with Frito-Lay. Once their account names and passwords have been entered, they can review a complete accounting of how much corn they have delivered and how much money they will receive for it. Farmers easily find this critical information, as well as other relatively obscure but timely data, on screen after screen of black text on basic white or gray backgrounds.

Frito-Lay’s former procurement manager, Scott Friedlund, explains, “We tried not to make it flashy. We wanted it to be simple to look at and understand.” The site is a time-saver for both farmers and Frito-Lay. Farmers check at off times, so they don’t have to interrupt their work, which means fewer employees at Frito-Lay are needed to field phone calls.

“Why doesn’t Lloyd surf?” I asked Disa.

“He just loses patience. He’s a tractor man.”

When Disa proclaimed her husband a tractor man, I suddenly realized what these kinds of sites are like—tractors with no chrome or frills. They are utilitarian and simple, dirt simple. They are no more and no less than a means to an end. What looked to me like a dearth of design worked well for farmers who have no use for fancy design. Looking at it from their point of view, I understood that they need their information presented in a sensible, appropriate way, which sometimes might look, to my professional eyes, like no design at all.

“What Web sites matter to you, Disa?”

“I like my Virginia Tech extension agent’s site the best ‘cause it hits home. Rick knows us. He talks about things he’s done that work.” She paused.

“There’s a book out, you know, The Farmer’s Guide to the Internet. It lists more than 1,000 sites.”

In the way I originally looked at it, the thought of farmers surfing the Web seemed incongruous. Yet the way Disa sees it, it’s easy and even necessary to balance cows and computers. It suits her just fine.
I was curious about the fuss over OXO’s top-selling, $6 potato peeler. Everywhere I looked, I found articles and references to this humble kitchen gadget. Not only that, but Good Grips, the company’s line of kitchen and garden tools, had received a host of design awards and proved to be a financial success, as well. Most intriguing was the continuous stream of fervent thank-you letters that OXO receives from customers (“What a joy your Good Grips products are!”). What was behind all this attention and success? I had the growing suspicion that it had little to do with design theory, breakthrough technology, or marketing savvy, and a lot to do with common sense.

I bought one of the peelers. I pared a carrot with it. I actually enjoyed using it. I knew that the peeler had been designed, in part, to fit the needs of older people and those with arthritis. So I took it over to my husband’s parents, Jim and Paula, to try out. “Well, it’s very comfortable,” they said, right off the bat. “This big black handle is easy to hold. You don’t have to squeeze it so hard.” They took turns peeling a potato. “It doesn’t seem to slip if your hands are wet. It’s very sharp. Works if you peel toward yourself or away. Let’s try hanging it up. Yep, that works too.” They pulled out their old metal peeler and held the two side by side, then threw the old one in the trash.

I called Davin Stowell, the president of Smart Design, the designers of Good Grips. “Do you think common sense has any role in design?” I asked him.

“Common sense?” A pause. “That’s all good design is—plain old common sense,” he replied thoughtfully. “When we started to design the potato peeler, we used a lot of common sense. We looked at tools like axes. The design of ax handles has survived through the ages for a reason. They are always oval, wider at the end, so they don’t slip out of your hand.

“Look at hammers,” Davin continued. “You’ll never find one with a dowel-shaped handle. Screwdrivers are really well figured out. And then there are bike handles with their flexible rubber grips.” OXO’s potato peeler, I realized, is full of common-sense features borrowed from other places and leveraged to create something new.

With common sense and intuition working hand in hand, Smart Design created more than 100 early variations of the peeler. They tried out the models on all sorts of people: cooks, people with arthritis, older people, kids. They took them home to their own kitchens. Committed to the idea of universal design, Davin’s team designed for the extremes, not the average person. In this case, the potato peeler was developed with aging in mind and for those with manual disabilities, limited mobility, or declining strength. Things designed for people with disabilities often serve everyone else equally well. Davin said, “No one wants to be singled out as having special needs. The peeler was designed to have universal appeal. Those without special needs get an added bonus.”

Davin continued, “We use design to communicate, to give people a better understanding. Sam Farber, OXO’s founder, always insisted that it was not enough to just make something work better. The customer needs to understand it right away.”

Which is what the fins are all about. When people pick up the peeler, as my in-laws did, their fingers go right to the fins. As they squeeze the flexible soft spots, they begin to understand their
purpose: to provide a better grip. Shortly after noticing the fins, people tend to remark on the wide black handle, which is oversized to improve leverage and spread squeezing pressure over the entire palm. This is especially welcome for people whose fingers cramp easily or who find it nearly impossible to grip something pencil-thin. The handle is made of a warm, pliable, nonslip material that insulates against hot and cold. It features a hanging hole with a funnel shape that helps guide it onto a hook, an added boon for those with unsteady hands or poor eyesight. A lot of importance was also placed on the design of the peeler’s “business end,” made of a high-quality steel chosen for its sharpness and efficiency, which in turn reduces the amount of force needed and the risk of slipping. A width of 1.2mm was specified, which removed just the right amount of surface without losing too much of the food.

But what inspired all this fine-tuned and thoughtful design? I soon discovered that the story really began with Sam Farber’s common sense. One day in his kitchen, he watched his wife Betsey, who suffers from arthritis, struggling with a potato peeler. He asked himself a simple question, “Why do kitchen utensils have to hurt your hands?” He thought about the rusty, dull blades on the hard, skinny peelers, the can openers that didn’t open cans, and all those other “functional disasters” in the kitchen. It made sense to make ordinary kitchen tools that were comfortable and easy to use.

Dan Formosa, a key member of the design team, says, “Kitchen gadgets are funny little things. They are part of the daily ritual, the ceremony around food and eating. When people can experience relief from frustration and pain, when we give them the ability to do standard, everyday things, we contribute to their quality of life by allowing them to participate more fully.”

Everything about the design of OXO’s Good Grips is grounded in common sense. From Smart Design’s research to find which designs already worked, like ax handles and bicycle grips, to OXO’s belief in design that works for everybody (from ages 4 to 95 at last count), to the initial plain sense observation of Sam Farber’s that it just didn’t make any sense to keep using potato peelers that rusted and dulled and peeled your fingers along with the potato. In the end, if the hundreds of grateful letters are any indication, it makes good sense to do good.
“In ordering our world we order ourselves…”

If you happened to visit Chicago’s Washington Square Park, known as Bughouse Square, last year, you very likely would have wandered into an interactive sound installation by multimedia artist Mirosław Rogala. If you stepped inside the modernist gazebo and moved in front of the loudspeakers, you would have triggered recorded voices, some from the past, like Clarence Darrow or Chicago’s first Mayor Daley; some from the present, like Laurie Anderson. As other people entered the installation, you would have become aware of an increasingly provocative and complex soundscape. Carl Sandburg, for instance, quotes Abraham Lincoln in his famous house-divided speech in 1858: “If we could first know where we are and whither we are tending, we could better judge what to do and how to do it.” Or Studs Terkel: “The funny thing about the manner in which we live today in this society, in this country, is the depth of self-deception.” Commissioned by Sculpture Chicago’s Public Art Project, Mirosław’s Electronic Garden/NatuRealization used four body-heat sensors, custom sound technology, and computers to create a “debate that spans time and space.”

The installation has its electronic companion on the Web, eGarden, where people can contribute their own views to a global conversation in a quieter, more private space that allows for reflection. “I call it a garden because I’m taking history and making it grow in the new soil of hyperspace,” says Mirosław.

The sound installation was inspired by Bughouse Square itself, which evolved in the 1930s and ’40s into a place like London’s Hyde Park Corner, a place where free-thinkers, orators, and evangelists would speak their minds. Today, it is an officially designated free-speech zone. Mirosław explains, “I created it to remind Americans how important free speech is. Free speech means people have to interact.” This is a particularly compelling issue for Polish-born Mirosław, who grew up behind the Iron Curtain. Washington Square Park is surrounded by old row houses, new high-rises, the dignified Newberry Library, and the majestic New England Congregational Church. How the people in the surrounding community came to embrace or reject Mirosław’s invitation to participate is an interesting tale in itself. Mirosław’s installation ended up

**Electronic Garden/NatuRealization**

www.mcs.net/~rogala/egarden

Mirosław Rogala, Chicago, Ill.

Photos courtesy of Mirosław Rogala
fostering loud praise on one side and loud outcry on the other.

Those who came every day to play chess and checkers began to take an interest in watching people interact with the installation. School groups and art tours visited, along with people out walking their dogs, pushing baby strollers, or pausing on their way to and from work. Joggers, bikers, and kids passing through stopped and listened. One local woman who fed the birds and squirrels became an unofficial greeter, a hostess who encouraged people to move around in the sculpture and search for different voices. A police car patrolled several times a day, watching the interactions. The honks of traffic and bird songs mixed with voices both real and electronic, creating a sound collage of past and present.

For some, like Barbara Iverson, on the media faculty at Chicago’s Columbia College, the sculpture was a humbling place of reckoning: “When I visited the sculpture (which I loved)... memories flooded over me of other sunny days, when things in Chicago were not so settled... Miroslaw had really gotten under the skin of Chicago further than I had credited him with, and while he caught our sense of humor, he exposed our rage and shame for all the world to hear.”

When I visited the sound installation with a friend one blustery and overcast day in November, we came on a group of boys rollerblading, weaving in and around the metal posts, whizzing on and off the cement base.

“Is this the sculpture by Miroslaw Rogala?” we asked.

“We don’t think it’s a sculpture,” one boy answered. “We hate it. We didn’t want it here.” The boys began to gather around us.

“Yeah! It says weird things,” an African-American child said. Startled, I looked carefully in his eyes and recognized a flicker of fear. “It talks about the Ku Klux Klan and the Nazis,” he said angrily. “We don’t want it here!” another boy yelled, suddenly throwing his basketball at the speakers. Again and again he threw it, as if with pure force he could remove this unwanted intrusion into his park, his life.

Days later, I was still bothered by this meeting. I called Miroslaw to talk to him about it.

“Basketballs? They were throwing basketballs? I spent a lot of time figuring out how to keep the sculpture from being vandalized. I put the speakers 12-feet high so they would be out of reach.”

“The sculpture was very painful for the kids,” I said. “Was it painful for you too?”

“Yes, it was a difficult project. From the moment I had the idea and went to the city for permits and power, it was difficult. The city wanted to know what the recordings would say before they would let me continue. I thought to myself, ‘This is America! Is this free speech?’”

“What about the community? How did you approach them? Did you include them?”

“I met with people every Saturday for over four months. I lectured on new media. I explained what interactive meant. I recorded the locals. Four speeches from local people were included, and more would have been, but funds were not available to change the speeches I had already selected. My original idea was to build a modular design, so that when the installation was relocated to another country or another community, it would allow for different languages and texts.

“How has this experience changed your work?” I asked Miroslaw.

“I had to regroup. I had to rethink my approach to the creative process. I no longer create only closed-circuit works. Now I create open structures in which the viewer becomes co-creator and delivers the final meaning. The result is not predictable by me. It’s important to give people a way to realize that they can create meaningful experiences in their lives. It’s all in the way we see ourselves.”

Through his Electronic Garden, Miroslaw unflinchingly tells the truth that he believes: that our freedom of speech is in danger. When the words of different times mesh or clash, heard in the context of today’s world, when Abe Lincoln’s speech slams
up against terrifying words promoting White Power, we gain a new perspective and sense of urgency. As our emotions well up, we feel compelled to use our own voices, as I have done in writing this. Miroslaw provokes and inspires us to examine whether things are as they appear, how we may be deceiving ourselves and where our responsibility begins and ends. He says, “I wanted to break the barrier between passive and active. I wanted people to listen and participate because otherwise my art does not exist.”

I respect Miroslaw’s struggle to combine art and technology in meaningful ways that engage us and prompt strong emotional experiences. As an interaction designer, I share this aspiration. Seeing the response to this installation leads me to conclude that the challenge of having the general public interact with a difficult subject might be far greater than designing the interaction of a product for specialized use. In product design, we tend to put a heavy emphasis on user satisfaction. But isn’t there value in experiencing things we don’t necessarily enjoy but that nourish and inform us and spur us on in our own search for the truth?

I keep coming back to the negative reactions of some of the local people who lived with the sculpture. Miroslaw responds, “Some people love it—they understand it. They come back to experience and re-experience the work. Some people hate it. Perhaps they don’t want to be engaged. We cannot be passive; we have to be involved in creating and interacting with our worlds. Sometimes, we are forced to take a stand. Sometimes, people don’t want to do it. A lot of people don’t want to do it. And that’s what this installation is all about.”

I think the boys I met in the park did take a stand—against the sculpture—which may portend the beginnings of a stand against the issues that frightened them: racism and the threat to their well-being and freedom. If so, that would fulfill Miroslaw’s greatest hopes.

Miroslaw is willing to accept the consequences of his work. By allowing different truths to be heard, he knows that people will disagree, giving rise to anger and discord. But he embraces all responses, because he knows that to be open to the truth is to allow possibilities that may otherwise be shut out. Over the six months that his sound installation was in Bughouse Square, Miroslaw came to find a new possibility for his next work. Rather than editing and presenting his version of the truth, he will allow the people who interact with his art to express their own truths, in their own ways.

As I ponder what may come of this, I am for a moment, back in Bughouse Square, hearing the voice of poet Joe McGregory:

“in ordering our world we order ourselves
in ordering ourselves we order a world
alone and together
we mirror ourselves into the world to find ourselves there
our personal space is the site of our selfhood
our bodies the intimacy of desire, need and fear
the world shaped by and shaping
what we were
who we are
what we will be.”
“Be Awake!”

Tucked away inside the Marin General Hospital’s Cancer Center is a tranquil healing garden. The first time I heard about this sanctuary, I was profoundly moved, but what it was that affected me so I could not place. Designed by landscape architect Topher Delaney, of Delaney Cochran & Castillo, the garden is separated by a glass-curtain wall from a waiting room where people bide their time until it’s their turn for radiation treatment. “You do a lot of waiting in hospitals and doctors’ offices,” Topher explained to me. “I think of my gardens as a chance for people to realign themselves and to focus on their healing in a nurturing, positive way.” The door to the garden is often left open, so the soothing sounds of cascading water wash into the waiting room. Sometimes, people meditate in the garden. Some bring their families and children. Nurses, doctors, and support staff find refuge and solace there, too. It is a place of renewal and reflection. A pile of smooth river stones nestle in a rock; offered for the taking, they disappear over time.

Many of the plants in the garden are used in the treatment of cancer. In a corner grows a pacific yew, the source of the pharmaceutical taxol, which is used in chemotherapy. Horsetail rushes stand staunchly, their green, striped stems rich in silica, an effective agent against bone cancer. Madagascar periwinkle blankets the ground, a source of the cancer drug vincristine. Each patient is given a guide that identifies the plants and their uses. The garden is a metaphor made visible, a tangible, positive link to their future health.

Because treatments typically take place over a long period of time, patients can watch the seasons change in the garden: Cherry buds appear and burst into flower, to give way later to aging ochre leaves scattered over the slate stepping stones. Trailing vines of Boston ivy wend their way across the curved cement arch; delicate green fingers trace across the fountain’s noble backdrop. The sweet smell of earth permeates the atrium, countered by the perfume of creeping mint, a refreshing balm to those who are suffering physically and emotionally. Occasionally, birds wing into the garden, stirring the morning glories, passion flowers, and forget-me-nots.

I sat there one spring afternoon and talked with Dr. Dick Evans about the Cancer Center. He spoke with sincerity and pride. “We have a close community here. We bring living into a space that is thought of as having to do with dying. In the main..."
area of the Center, we have musicians and art openings. For the holidays, we have a Christmas tree and a menorah for Hanukkah.

“The garden is an important part of this effort. You can’t separate the garden from the staff or the building. I believe that the things we surround ourselves with, either by choice or happenstance, have a tremendous influence on us. Everything relates and influences the other. We want the center to be a place where people feel they are cared for and cared about. We want to give them a holistic, positive, healing experience that comes from the environment and the staff.”

I thought of a conversation I’d had weeks before with Topher. I had asked her if she had relied heavily on her intuition and experience in designing the garden.

“Because gardens like this are not typically found in hospitals, there was no reference to go from. But historically, small, walled gardens were experienced as safe spaces. Usually they had running water. Healing gardens should not be bright and sunny. They need to be shady.”

“Topher,” I hesitated, “it’s true, the sun is too bright—it hurts your eyes—when you’re ill. But to know that means you’ve experienced it yourself…”

“You’re right,” she said evenly. “Seven years ago, I had breast cancer. In fact, I am the only one from my support group who is still alive. It’s OK. You can talk about it. It’s important for people to know. Getting breast cancer was a gift from God. It opened my heart and made me understand that I have a gift. I am still alive, I believe, because my work is not done. Having cancer completely changed me.

“I have become very passionate about two things: being of service—and being awake to life.

“One day,” Topher continued, “I visited the garden and a frail, thin, older woman in her late sixties shuffled by me. She was wearing a hospital gown and holding a cup. I thought that she was suffering from dementia, heading mistakenly out to the garden instead of to the drinking fountain. I tried to gently turn her around. ‘No, no,’ she said, ‘I’m going to the fountain out here.’ She made her way over to it and filled her cup. Turning toward me, she explained, ‘This is going to help me heal.’

“This garden has become a sacred place,” Topher said.

At one point, I thought that the profound something I was looking for lay in the garden’s exquisite design and the medicinal plants or in the compassionate staff and their holistic philosophy or perhaps in a combination of all these things. But it turned out to be Topher Delaney, a designer who knows full well the value of investing herself personally in her work. How else could such a place have come to be? Her passion to serve others by creating healing sanctuaries is only surpassed by her passion to stay alive. The way that she expresses her vitality helps others to heal, spiritually, as well as physically.
As I walked through the sunlit garden of the Alzheimer’s Senior Access Center, I heard the carefree laughter of young children in the daycare center next door. Their singsong calls to one another made a curious harmony with the birds’ trills and squawks. As I looked through the trumpet vine on the fence, their colorful forms appeared and disappeared as they cavorted about playing games of tag and duck-duck-goose.

In the garden, Joe stood intently looking at the little green lemons growing on a tree in one of the wooden planters painted light shades of pink, yellow, and green. He held the ripening fruit in his hand, then gently let it hang down again. Carefully, he looked through the leaves, smiling as he spied more lemons.

Inside the Center, I watched a sedate but respectable attempt at the macarena. The airy room was filled with white-haired men and women sitting in chairs arranged in a semicircle around an energetic leader. Then a break and the house specialty, peanut butter and crackers, was served. In the background, “Bye, Bye Blackbird” was playing. After a while, the morning exercises continued, this time to a rousing chorus of “Row, row, row your boat.” As I looked around, I saw just about everyone leaning forward in the chairs and then back, rowing merrily, I imagined, on the rivers of their memories.

As Alzheimer’s progresses, the memory eventually fragments and fades away. Living turns into a series of disconnected bits and pieces, like a stitched quilt unraveling. Current realities are often replaced by childhood memories. Providing ways to connect, through songs or old photographs, can prompt memories that are reassuringly familiar. Another way is through a garden.

At the center, Topher Delaney unearthed, from an 800-square-foot patch of asphalt, a little garden that creates big miracles every day. “It’s a humble place, with a humble program that does wonderful work,” I remembered Topher saying of the daycare center that revolves around 30 “participants” and the staff.

I asked Topher, “How did you learn about the ways people would use the garden? How did you research Alzheimer’s?”

“I talked to the staff of several different facilities,” she said. “I cross-referenced the information they gave me. I looked for repetitive patterns. I asked, ‘How do people who have Alzheimer’s move?’ I was told that they paced, back and forth, back and forth, back and forth. Sometimes they jump. So we built a textured, brick path through the garden that encourages an interesting passage for them.”

Later I wandered through the garden with staff member Ingebritt Fong. She explained, “The first couple of times we bring people out in the garden and invite them to walk through it, they stop at the beginning of the brick path, because it’s a different pattern to the one they’ve been walking on. Any transition, like linoleum to carpet, will cause them to stop. Some people stoop down and touch the bricks. Others try to pick them up. After a while,
they venture onto it. I guess it’s kind of like prompting them to follow the yellow brick road in the Wizard of Oz. Which it is! It leads them into this garden, where the rosemary smells wonderful and the lavender and roses are in bloom.”

All the plants are edible, removing the worry of accidental or intentional ingestion. Young gingko trees flourish, placed in the garden because they have been found effective in treating failing memory, dementia, and Alzheimer’s disease. There are no water fountains, because the sound of running water activates the urinary tract. All the elements in the garden are small and recognizable, because people with Alzheimer’s tend to be afraid of large forms. They can also bolt over five-foot walls, so the surrounding fences are six-feet tall and cloaked in ivy to emphasize the feeling of being in a small, safe space.

“Oh, it’s a nice place for them to wander if they’re restless. Or if they’re having a bad day and need to be with us one-on-one. It calms me, too,” said Ingebritt. “Sometimes, we have singalongs out here. Carmella plays the autoharp and we sing all sorts of songs, old marching tunes and songs from movies. Cole Porter, Frank Sinatra... they love it.”

All the plants and garden ornaments are ones that were popular in the ’40s and ’50s, evoking a familiar environment. The colors are bright: yellow yarrow, red and pink geraniums, white roses. “They cut the flowers and we bring them inside. I make bouquets as gifts for them,” Barbara Nobel, the director of the Center, told me as she replenished some soil. “One woman was still a little nervous on her second day, so I made her a beautiful bouquet of rosemary, lavender, and mint. It smelled so lovely. She took it home with her that evening.”

When we’d had our fill of the garden, Ingebritt asked my husband and me, “Would you like to meet some of the people who enjoy the garden?” We nodded and she led us inside to Mary, who was seated on the outskirts of the semicircle. “Mary is the woman I told you about, who loves the garden. She goes out every day and picks up little leaves and twigs. They are her treasures. They are very significant to her. Sometimes, she uses them as markers when we play Bingo.”

Mary? she said, kneeling down, “We have some lovely visitors today. They’ve come to see our garden.” Mary looked at me curiously and smiled, offering her hand. I could not make out what seemed to be disjointed phrases, but I took her hand and held it in mine for a minute.

In her other hand, Mary held a dried green leaf. Bits of it had crumpled and broken off, sprinkled across her lap. “Here, Mary, you’ve lost some of your leaf,” Ingebritt noted, picking up the pieces and placing them back in Mary’s hand.

“Thank you, dear.” Mary said, her fingers worrying over them.

Later on, I asked Ingebritt, “What do people say when they see the garden for the first time?”

“Oh, often they’ll say something wistful like ‘I used to have a garden like this.’” We were silent for a moment. I heard a song playing faintly, someone crooning, “It’s been so long since you were here....”

Ingebritt continued thoughtfully, “I don’t know what we’d do without this garden. It means so much to all of us.”

In designing this garden, Topher and those who worked with her acted out of empathy for the people who enjoy it, giving them a place to reminisce and find refuge. It was also an act of courage. “This project was really tough,” Topher said. “It was hard to see the culture and spirit of these people being eviscerated; eventually only their bodies remain. Some don’t remember from one minute to the next that today is Tuesday or that the daffodils are blooming or even their own names. All I could think as we were working on this garden was, ‘There, but for the grace of God, go I.’” Witnessing the fragility and immeasurable loss suffered by those who have Alzheimer’s, and meeting their families, brought Topher to tears more than once. In emotionally challenging situations like this, I understand how difficult it can be to design. But I also know that if we are willing to open our hearts, our designs will be stronger. And so will we.

My own eyes were wet as I remembered my Grandma Larie, who had succumbed to Alzheimer’s. I wished she’d had a garden like this to enjoy. When I confided this to Topher, this is how she comforted me. “When you’re ill, you are vulnerable. You don’t want a big field. You want a small space. You want comfort. You need the arms of something to hold you together; the arms of a space, the arms of a caregiver, the arms of someone who loves you.”
Designing the Experience of Being Alive

After all is said and done, I realize that what I was looking for was something I’ve known all along. We are human beings first and designers second. No amount of professionalism can substitute for our being personally involved. Our deep-rooted human qualities are what brings the greatest vitality and relevance to our work.

For me, these stories illuminate who we are and how we are designing our world. They show how we shape the things around us and how the things around us shape our experience. They reveal what it takes to design the experience of being alive.

It takes heart to summon up courage, empathy, and love, to be willing to look up from our desks and step outside our offices and embrace the people we are designing for—to bring it home.

It takes passion to fire us up and move us forward, to express ourselves and by so doing enable others to express themselves, to stay awake to life and the power of our work.

It takes truth to recognize the people who are really there and to call them by name—not reducing people to abstract labels, such as “consumers,” “users,” “visitors,” and “the audience.”

It takes common sense to source our designs from the people who will use them in the end.

It takes a sense of discovery to be willing to give up being experts and put aside our professional knowledge and experience, to step into other people’s lives and see from their points of view and understand what they have to teach us.

It takes vision to imagine experiences that engage our minds, our senses, and our spirits, and to see the profound possibilities available to us.

When we bring these human qualities to bear, design lives up to its true potential: contributing to the quality of our lives. It is an opportunity to design not only quality experiences but our own humanity.

In gratitude

I am deeply honored to receive the first Muriel Cooper Prize. I would like to thank the Design Management Institute for initiating this award: an award whose purpose, in part, is to keep alive the legacy of a person I have long admired.

I am grateful to Muriel Cooper. Even though I never met her, I feel as if I had, through talking to some of her colleagues, her students, her friends, and those who loved her. I am inspired by the passion that fired Muriel’s vision and her work and by the courage she exhibited while charting new territories as a woman, a designer, and a teacher. I am enlivened by her clarion call. In the last interview she gave before her death, Muriel, noting the passage of time, said to herself: “You damn well better get going. Because you don’t know what’s going to happen… There’s a lot to be accomplished.”

My heartfelt thanks to those who have entrusted me with their stories: Michael Arent, Nick Arent, Pat Coleman, Topher Delaney, Dick Evans, Sam Farber, Ingebritt Fong, Dan Formosa, Alex Lee, Disa McPherson, Barbara Nobel, Jim Palmer, Ly Pham, Miroslaw Rogala, and Davin Stowell.

I’d also like to share this moment of acknowledgment with all those I have been privileged to work with over the past 12 years. I am grateful to all our staff (past and present, including Rick Lostutter and Jeff Tycz), to our clients, and to the friends and colleagues who have taught me a lot and, in turn, allowed me to contribute to them.

I would also like to acknowledge Jim Faris, my husband and partner, who has traveled by my side for the past 20 years, supporting me and challenging me in equal measure. In truth, he shares the Muriel Cooper Prize with me.

Equally important to mention is our son Benjamin, who shows us constantly how precious being alive really is.

And finally, I dedicate this work to my parents, Don and Donna Alben, who showed me how rewarding and inspiring it can be to reach out to people and experience who they really are, deep down inside.

Suggested Readings


(Reprint #9783ALB09)
Lauralee Alben is the first recipient of the Muriel Cooper Prize, established in 1997 by the Design Management Institute (DMI). It is awarded to those who show original thinking, future promise, and exemplify a spirit of exploration in the digital environment. The prize includes the honor of giving the Muriel Cooper Memorial Lecture and appointment as a Muriel Cooper Fellow. Lauralee delivered the lecture, “At the heart of interaction design,” on May 7, 1997 in Minneapolis at DMI’s second annual conference on design management in the digital environment. The lecture appeared in print as the keynote article in the Summer 1997 issue of the Design Management Journal, Volume 8, Number 3, and in an interactive version.

Muriel Cooper was a key early member of the Board of Directors of DMI. The prize created in her name by Design Management Institute President Earl Powell, pays tribute to Muriel as co-founder and late director of MIT Media Lab’s Visible Language Workshop, and honors an individual who, like Muriel herself, challenges our understanding and experience of interactive digital communication. In addition to Lauralee Alben (1997), Muriel Cooper Fellows include Dan Boyarski (1999), John Maeda (2001), Masamichi Udagawa (2006), and Ben Fry and Casey Reas (2008).

Lauralee Alben is Founder and CEO of the Sea Change Design Institute®, a nexus of change agents committed to evolving a creative, integrated, and compassionate world by engaging in individual, organizational, and global challenges. Regarded as a thought leader, Lauralee gives keynotes to corporations, professional conferences, and academia including the Women’s Forum for the Economy and Society in France, TED, Intel, SUN, Stanford, and Carnegie Mellon.

Lauralee has advised many of the world’s most innovative companies using the Sea Change Design Process™. Her clients include Apple Computer, where she helped define personalized computing; Procter & Gamble, where she led a culture change within a research and development group that shifted inertia into a sustainable innovation capability; and Intel, where she devised a global marketing strategy for the Itanium Solutions Alliance. Lauralee also consults on global issues, from inspiring ocean conservation for the Environmental Defense Fund and the Monterey Bay Aquarium, to searching for new ways to protect human rights in Uzbekistan.

Lauralee is one of I.D. Magazine's I.D. Forty, “the most influential people in design.” She is also an AIGA Fellow. Her articles have appeared in many business, design and computer publications and her work has been shown at SIGGRAPH and CHI and in Communications Arts, HOW, and interactions magazines. When Lauralee received the Muriel Cooper Prize, she was a principal of Alben+Faris Inc., a firm that specialized in the design of interactive experiences.

Design Management Institute
101 Tremont Street, Suite 300
Boston, MA 02108 USA
T: 617.338.6380
F: 617.338.6570
dmistaff@DMI.org
www.DMI.org

Sea Change Design Institute
317 Arroyo Seco
Santa Cruz CA 95060 USA
T: 831.426.8026
hello@seachangedesign.com
www.seachangedesign.com

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