

# Emotional

# Design

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"The book pops with fresh paradigms, applying scientific rigor to our romance with the inanimate. You'll never see housewares the same again." —*WIRED*



Why we  
love  
(or hate)  
everyday  
things

By the author of *The Design of Everyday Things*

# Reflective Design

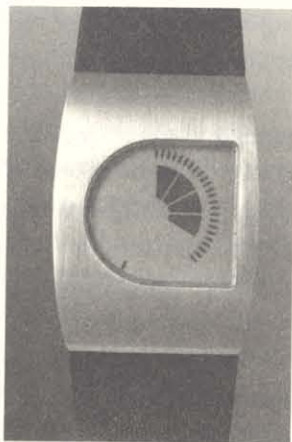
Reflective design covers a lot of territory. It is all about message, about culture, and about the meaning of a product or its use. For one,

FIGURE 3.6

**Reflective design through cleverness.**

The value of this watch comes from the clever representation of time: Quick, what time is represented? This is *Time by Design's* "Pie" watch showing the time of 4:22 and 37 seconds. The goal of the company is to invent new ways of telling time, combining "art and time telling into amusing and thought provoking clocks and watches." This watch is as much a statement about the wearer as it is a timepiece.

(Courtesy of *Time by Design*.)



it is about the meaning of things, the personal remembrances something evokes. For another, very different thing, it is about self-image and the message a product sends to others. Whenever you notice that the color of someone's socks matches the rest of his or her clothes or whether those clothes are right for the occasion, you are concerned with reflective self-image.

Whether we wish to admit it or not, all of us worry about the image we present to others—or, for that matter, about the self-image that we present to ourselves. Do you sometimes avoid a purchase "because it wouldn't be right" or buy something in order to support a cause you prefer? These are reflective decisions. In fact, even people who claim a complete lack of interest in how they are perceived—dressing in whatever is easiest or most comfortable, refraining from purchasing new items until the ones they are using completely stop working—make statements about themselves and the things they care about. These are all properties of reflective processing.

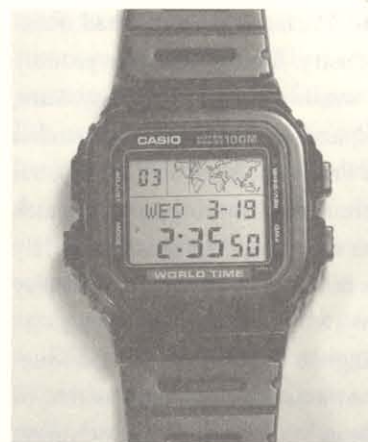
Consider two watches. The first one, by "Time by Design" (figure 3.6), exhibits reflective delight in using an unusual means to display time, one that has to be explained to be understood. The watch is also viscerally attractive, but the main appeal is its unusual display. Is the time more difficult to read than on a traditional analog or digital

FIGURE 3.7

**Pure behavioral design.**

The *Casio* "G-Shock" watch is pure behavioral design; efficient and effective, with no claims to beauty and low in such measures of reflective design as prestige and status. But consider the behavioral aspects: two time zones, a stopwatch, a countdown timer, and an alarm. Inexpensive, easy to use, and accurate.

(Author's collection.)



watch? Yes, but it has an excellent underlying conceptual model, satisfying one of my maxims of good behavioral design: it need only be explained once; from then on, it is obvious. Is it awkward to set the watch because it has but a single control? Yes, but the reflective delight in showing off the watch and explaining its operation outweighs the difficulties. I own one myself and, as my weary friends will attest, proudly explain it to anyone who shows the slightest bit of interest. The reflective value outweighs the behavioral difficulties.

Now contrast this reflective design with the practical, sensible, plastic digital watch by *Casio* (figure 3.7). This is a practical watch, one emphasizing the behavioral level of design without any attributes of visceral or reflective design. This is an engineer's watch: practical, straightforward, multiple features, and low price. It isn't particularly attractive—that isn't its selling point. Moreover, the watch has no special reflective appeal, except perhaps through the reverse logic of being proud to own such a utilitarian watch when one can afford a much more expensive one. (For the record, I own both these watches, wearing the *Time by Design* one for formal affairs, the *Casio* otherwise.)

A number of years ago I visited Biel, Switzerland. I was part of a small product team for an American high-technology company, there

to talk with the folks at Swatch, the watch company that had transformed the Swiss watchmaking industry. Swatch, we were proudly told, was not a watch company; it was an emotions company. Sure, they made the precision watches and movements used in most watches around the world (regardless of the brand displayed on the case), but what they had really done was to transform the purpose of a watch from timekeeping to emotion. Their expertise, their president boldly proclaimed, was human emotion, as he rolled up his sleeves to display the many watches on his arm.

Swatch is famous for transforming the watch into a fashion statement, arguing that people should own as many watches as ties, or shoes, or even shirts. You should change your watch, they proclaimed, to match mood, activity, or even the time of day. The executive team of Swatch patiently tried to explain this to us: Yes, the watch mechanism had to be inexpensive, yet of high quality and reliable (and we were very impressed by our tour of their completely automated manufacturing facilities), but the real opportunities lay in exploiting the face and body of the watch. Their web site puts it like this:

**Swatch Is Design.** *The form of a Swatch watch is always the same.*

The tiny space it offers for creative design exerts an irresistible power of attraction on artists. Why? Because the watch face and strap can take on the wildest imaginative concepts, the most unusual ideas, brilliant colors, rousing messages, art and comics, dreams for today and tomorrow, and much, much more. And that's exactly what makes each Swatch model so fascinating: it is design that incorporates a message, handwriting that bears witness to a personality.

At the time of my visit, we were impressed, but puzzled. We were technologists. The concept that a piece of advanced technology should really be thought of as a vehicle for emotions rather than for function was a bit difficult for us engineers to fathom. Our group could never get its act together enough to work in such a creative way, so nothing ever came of that venture—except for the long-lasting impression it

made on me. I learned that products can be more than the sum of the functions they perform. Their real value can be in fulfilling people's emotional needs, and one of the most important needs of all is to establish one's self-image and one's place in the world. In his important book about the role of industrial design, *Watches Tell More than Time*, the designer Del Coates explains that "it is impossible, in fact, to design a watch that tells *only* time. Knowing nothing more, the design of a watch alone—or of any product—can suggest assumptions about the age, gender, and outlook of the person who wears it."

Did you ever consider buying an expensive, hand-crafted watch? Expensive jewelry? Single malt scotch or a prestige vodka? Can you really distinguish among the brands? Blind-tasting of many whiskeys, where the taster has no idea which glass contains which drink, reveals that you probably can't taste the difference. Why is an expensive original painting superior to a high-quality reproduction? Which would you prefer to have? If the painting is about aesthetics, then a good reproduction should suffice. But, obviously, paintings are more than aesthetics: they are about the reflective value of owning—or viewing—the original.

These questions are all cultural. There is nothing practical, nothing biological, about the answers. The answers are conventions, learned in whatever society you inhabit. For some of you, the answers will be obvious; for others, the questions will not even make sense. That is the essence of reflective design: it is all in the mind of the beholder.

Attractiveness is a visceral-level phenomenon—the response is entirely to the surface look of an object. Beauty comes from the reflective level. Beauty looks below the surface. Beauty comes from conscious reflection and experience. It is influenced by knowledge, learning, and culture. Objects that are unattractive on the surface can give pleasure. Discordant music, for example, can be beautiful. Ugly art can be beautiful.

Advertising can work at either the visceral or the reflective level. Pretty products—sexy automobiles, powerful-looking trucks, seductive bottles for drinks and perfume—play with the visceral level.

Prestige, perceived rarity, and exclusiveness work at the reflective level. Raise the price of Scotch, and increase the sales. Make it difficult to get reservations to a restaurant or entrance to a club, and increase their desirability. These are reflective-level ploys.

Reflective-level operations often determine a person's overall impression of a product. Here, you think back about the product, reflecting upon its total appeal and the experience of using it. Here is where many factors come into play and where the deficiencies of one aspect can be outweighed by the strengths of another. Minor difficulties might very well be overlooked in the overall assessment—or enhanced, blown all out of proportion.

The overall impact of a product comes through reflection—in retrospective memory and reassessment. Do you fondly show your possessions to friends and colleagues, or do you hide them and, if you talk at all, is it only to complain? Things that an owner is proud of will be displayed prominently, or, at the least, shown to people.

Customer relationships play a major role at the reflective level, so much so that a good relationship can completely reverse an otherwise negative experience with the product. Thus, a company that goes out of its way to assist and help disgruntled customers can often turn them into its most loyal fans. Indeed, the person who buys a product and has nothing but pleasant experiences with it may be less satisfied than the one who has an unhappy experience, but is well treated by the company as it fixes the problem. This is an expensive way to win customer loyalty, but it shows the power of the reflective level. Reflective design is really about long-term customer experience. It is about service, about providing a personal touch and a warm interaction. When a customer reflects on the product in order to decide what next to purchase or to advise friends, a pleasant reflective memory can overcome any prior negative experiences.

Amusement park rides are a good example of the interplay between reflection and reaction. The ride appeals both to those who value the feelings that accompany high arousal and fear for its own sake and to those for whom the ride is all about the reflective power afterward. At

the visceral level, the whole point is to thrill riders, scaring them in the process. But this has to be done in a reassuring way. While the visceral system is operating at full force, the reflective system is a calming influence. This is a safe ride, it is telling the rest of the body. It only appears to be dangerous. It is okay. During the ride, the visceral system probably wins. But in retrospect, when memory has dimmed, the reflective system wins. Now, it is a badge of honor to have experienced the ride. It provides stories to tell other people. Here an effective amusement park enhances the interaction by selling photographs of the rider at the peak of the experience. They sell photographs and souvenirs, so the riders can brag to friends.

Would you go on a ride if the amusement park was old and shabby, with clearly broken components, rusty railings, and a general air of incompetence? Obviously not. The rational reassurance will not be nearly as effective. Once the reflective system fails, then the appeal is apt to collapse as well.

## A Case Study: The National Football League Headset

“You know what the hardest part of this design was?” Walter Herbst, of the design firm Herbst LaZar Bell, asked, proudly showing me the Motorola headset (figure 3.8).

“Reliability?” I answered, hesitantly, thinking that it looked so big and strong, it must be reliable.

“Nope,” he answered, “it was the coaches—making the coaches feel good about wearing it.”

Motorola had asked Herbst LaZar Bell to design the headset to be used by the coaches of the National Football League. Mind you, these couldn't be just any headset. They had to be highly functional, delivering intelligible messages between coaches and their staff scattered about the stadium. The microphone boom had to be movable so that it could be placed on either side of the head for left-handed and right-

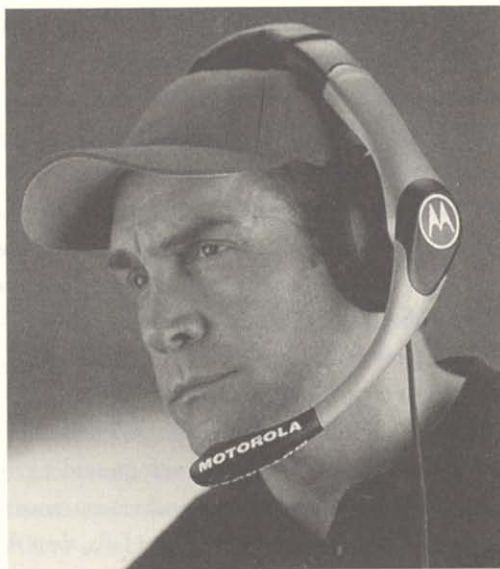


FIGURE 3.8

**Motorola's headset for the coaching staff of the National Football League.**

The headset was designed by the industrial design firm Herbst LaZar Bell, which won a Gold Prize from both *Business Week's* Industrial Design Excellence Awards and the Industrial Design Society of America (IDSA) for their achievement. IDSA described the reasons this way: "It's a rare moment when a design team realizes that it has been given the green light to create an icon—one that will be seen by millions around the world. The Motorola NFL Headset represents the marriage of sophisticated communications technology and great design with the blood, sweat and tears on the field of play. In addition, it enhances awareness of a company committed to delivering on the demanding requirements of professional users in every arena." (Courtesy of Herbst LaZar Bell and Motorola, Inc.)

handed coaches. The environment is a difficult one. It is noisy. Football games are played in temperature extremes, from high heat, to rain, to extreme cold. And headsets get abused: angry coaches take out their frustration on whatever happens to be around, sometimes grabbing hold of the microphone boom and throwing the headset to the ground. The signals have to be private so opposing teams cannot

eavesdrop. The headset is also an important advertising symbol, exposing the Motorola name to television viewers, so the brand name has to be visible regardless of camera angle. And finally, the coaches have to be satisfied. They have to want to use it. So not only does the headset have to stand up to the rigors of the game, it has to be comfortable to wear for hours at a time.

The headset design was a challenge. Small, lightweight headsets, though more comfortable, are not strong enough. More importantly, though, coaches rejected them. The coaches are the leaders of a large, active team. Football players are among the largest, most muscular players in team sports. The headset had to reinforce this image: it had to be muscular itself to convey the image of a coach in charge of things.

So, yes, the design had to have visceral appeal; and, yes, it had to meet the behavioral objectives. The biggest challenge, however, was to do all this while satisfying the coaches, projecting the heroic, manly self-image of strong, disciplined leaders who managed the world's toughest players, and who were always in control. In short: reflective design.

Accomplishing all this took a lot of work. This was not a design to be scribbled on the side of a napkin (although a lot of trial designs were, in fact, done on napkins). Sophisticated computer-aided drawing tools that allowed the designers to visualize just how the headset looked from all angles before anything had been built, optimizing the interaction of ear cups and microphone, headband adjustment, and even the placement of the logos (maximizing their visibility to the TV audience while simultaneously minimizing it to the coaches, to avoid distraction).

"The main goal in designing the Coaches Headset," said Steve Remy, project manager for Herbst LaZar Bell, "was to create a cool new look for the product that is often overlooked as a background item, and turn it into an image-building product that attracts the viewer's attention even in the high energy, action-packed context of the professional football game." It worked. The result is a "cool" product—one that not only functions well, but also serves as an effective

advertising tool for Motorola and enhances the self-image of the coaches. This is an excellent example of how the three different aspects of design can work well with one another.

## The Devious Side of Design

To the uninitiated, walking into the Diesel jeans store on Union Square West feels a lot like stumbling into a rave. Techno music pounds at a mind-rattling level. A television plays a videotape of a Japanese boxing match, inexplicably. There are no helpful signs pointing to men's or women's departments, and no obvious staff members in sight.

While large clothing retailers like Banana Republic and Gap have standardized and simplified the layout of their stores in an effort to put customers at ease, Diesel's approach is based on the unconventional premise that the best customer is a disoriented one.

"We're conscious of the fact that, outwardly, we have an intimidating environment," said Niall Maher, Diesel's director of retail operations. "We didn't design our stores to be user-friendly because we want you to interact with our people. You can't understand Diesel without talking to someone."

Indeed, it is at just the moment when a potential Diesel customer reaches a kind of shopping vertigo that members of the company's intimidatingly with-it staff make their move. Acting as salesmen-in-shining-armor, they rescue—or prey upon, depending on one's point of view—wayward shoppers.

—Warren St. John, *New York Times*

To the practitioner of human-centered design, serving customers means relieving them of frustration, of confusion, of a sense of helplessness. Make them feel in control and empowered. To the clever salesperson, just the reverse is true. If people don't really know what they want, then what is the best way to satisfy their needs? In the case

of human-centered design, it is to provide them with the tools to explore by themselves, to try this and that, to empower themselves to success. To the sales staff, this is an opportunity to present themselves as rescuers "in-shining-armor," ready to offer assistance, to provide just the answer customers will be led to believe they had been seeking.

In the world of fashion—which encompasses everything from clothes to restaurants, automobiles to furniture—who is to say which approach is right, which wrong? The solution through confusion is a pure play on emotions, selling you, the customer, the idea that the proposed item will precisely serve your needs and, more important, advertise to the rest of the world what a superior, tasteful, "with it" person you are. And, if you believe it, it will probably come to pass, for strong emotional attachment provides the mechanism for self-fulfilling prophecy.

So, again, which approach is right: that of the Gap and Banana Republic, which "have standardized and simplified the layout of their stores in an effort to put customers at ease"; or Diesel, which deliberately confuses and intimidates, the better to prepare the customer to welcome the helpful, reassuring salesperson? I know my preferences; I'll go with Gap and Banana Republic any day, but the very success of Diesel shows that not everyone shares this view. In the end, the stores serve different needs. The first two stores are more utilitarian (although they would shudder to be called that); the second pure fashion, where the whole goal is caring about what others think.

"When you're wearing a thousand-dollar suit," super salesman Mort Spivas told the media critic Douglass Rushkoff, "you project a different aura. And then people treat you differently. You exude confidence. And if you can feel confident, you'll *act* confident." If salespeople believe that wearing an expensive suit makes them different, then it does make them different. For fashion, emotions are key. Stores that manipulate emotions are simply playing the game consumers have invited themselves into. Now, the fashion world may have inappropriately brainwashed the eager public into believing that the game counts, but that is the belief, nonetheless.

To disconcert shoppers as a selling tool is hardly news. Supermarkets long ago learned to put the most frequently desired items at the rear of the store, forcing buyers to pass by isles of tempting impulse purchases. Moreover, related items can be placed nearby. Do people rush to the store to buy milk? Put the milk at the rear of the store, and put cookies nearby. Do they rush in to buy beer? Put the beer next to snacks. Similarly, at the checkout counter, display the small, last-minute items people might be tempted to buy while waiting in line. Creating these “point of purchase” displays has become a big business. I can even imagine stores deliberately slowing up the check-out procedure to give customers more time to make those last-minute, impulse purchases.

Once a customer has learned the shop or shelf layout, it is time to redo it, goes this marketing philosophy. Otherwise, a shopper wanting a can of soup will simply go directly to the soup and not notice any of the other enticing items. Rearranging the store forces the shopper to explore previously unvisited aisles. Similarly, rearranging how the soups are stored prevents the shopper from buying the same type of soup each time without ever trying any other variety. So shelves get rearranged, and related items are put nearby. Stores get restructured, and the most popular items are placed at the furthest ends of the store, with impulse items placed either adjacent or at the “end caps,” the ends of the aisles where they are most visible. There is a perverse set of usability principles at play here: make it difficult to buy the most desired items, and extremely easy for the impulse items.

When these tricks are used, it is critically important that the shopper not notice. Make the store layout appear normal. Indeed, make the disorientation part of the fun. Diesel gets away with their confusion because they are famous for it, because their clothes are very popular, and because wandering through the store is part of the experience. The same philosophy would not work for a hardware store. In the supermarket, the fact that milk or beer is at the farthest end of the store doesn't appear deliberate, it seems natural. After all, the coolers

are there at the back, which is where these items are kept. Of course, no one ever asks the real question, Why are the coolers located there?

Once shoppers realize that they are being manipulated in these ways, a backlash may occur whereby shoppers desert the manipulative stores and visit the ones that make their experiences more pleasant. Stores that try to profit through confusion often enjoy a meteoric rise in sales and popularity, but suffer a similar meteoric fall as well. The staid, conventional, helpful store is more stable, with neither the great ups nor the great downs in popularity. Yes, shopping can be a sensual, emotional experience, but it can also be a negative, traumatic one. But when stores do things correctly, when they understand “The Science of Shopping,” to use the subtitle of Paco Underhill's book, then the experience can be both a positive emotional one for the shopper and a profitable one for the seller.

Just as the scary rides of an amusement park pit the anxiety and fear of the visceral level against the calm reassurance of the intellect, the Diesel store pits the initial confusion and anxiety at both the behavioral and reflective levels against the relief and welcome of the rescuing sales person. In both cases, the initial negative affect is necessary to set up the relief and delight at the end. In the park, the ride is now safely over, and the rider can reflect upon all the positive experiences of having successfully mastered the adventure. In the store, the relieved customer reflects back upon the calm guidance and reassurance offered by the salesperson. In the store, the customer is apt to bond with the salesperson, not unlike the “Stockholm syndrome,” in which kidnap victims develop such a positive emotional bond with their captors that, after they are freed and the captors in custody, they plead for mercy for the kidnappers. (The name comes from a bank robbery in the early 1970s in Stockholm, Sweden, where a hostage developed a romantic attachment to one of her captors.) But there is a real difference between these two cases. In the amusement park, the fear and excitement is the draw. It is public, advertised. In the Diesel store, it is artificial, manipulative. One is natural, the other not. Guess which will last over time.