What makes us look?

Inside knowledge about the human visual system can make you a more powerful designer.

by Carolyn M. Bloomer, Ph.D.

Why do some images tug insistently at our attention—while others just fade into the background? Why do certain visuals pull—almost magnetically—on our minds, while others are hard to care a whit about?

Deep-rooted forces favor the winning or losing of the attention game. Understanding the complex and interrelated principles of dynamic perception can make the difference between a message that falls on deaf eyes, so to speak, and one that rivets the attention of your audience. As a cultural anthropologist and author of a book on art and visual perception, I hope to shed some light on this subject.

So let's start at the beginning. To be effective, your design must accomplish two fundamental objectives: first, attract your viewer's attention; and second, hold that attention long enough to deliver your message. Without the first, the second can never happen.

The process of looking is not a one-step, stimulus-response situation, but an *interactive* or *relational* process in which the viewer and the viewing context are as important as the design itself. Graphic design is a dialogue, a conversation in which several exchanges, or turns, take place between the viewer and the design. In other words, design is a visual system in which the design itself is but one agent.

Our viewing responses arise from three sources. The first is the human physical body, including the eye and brain, that has evolved over tens of millions of years — our basic system "hardware."

The second is the way that basic system is programmed by the culture we're born into. From this we learn how to be in the world — the culturally prescribed interpretations, meanings, and values attached to various kinds of sensory experience, including ways of reading pictures and designs.

And third is the individual's own particular, peculiar, idiosyncratic experience, as unique as a fingerprint.

What can we take for granted?

Surprisingly, the human eye shows little evolutionary change since our first primate ancestors, the prosimians, moved into the trees about 70 million years ago.

The old ocular structures of human vision include several automatic aspects of vision that are pretty much outside our conscious control. For example, stimulating the motion-sensitive cells (rods) in the periphery of the retina causes us to automatically turn our eyes toward the source of the motion. The circuitry of the retina leads us to sense colors, and to enhance zones of contrast in light-dark patterns and organize them as "edges," which then become the basis for figure-ground relationships.

Certain sensations are caused by ways the eye/brain system processes inputs. Examples are color vibration, shimmering patterns (such as moirés), and optical illusions (spots, afterimages, and so forth). Designers often call upon these physiological responses as ways of getting attention.

Primate research has located "face-specific" visual cells in the temporal lobes of the brain, suggesting we are hardwired to distinguish and respond to faces in highly sensitive ways. Indeed, even very young infants show preferences for patterns resembling a face, and when only a few months old begin to recognize individual faces.

Other evidence shows that humans are universally attracted to configurations that suggest human infants: figures with juvenile features such as proportionately larger heads and eyes and smaller mouths and jaws. The ethnologist Konrad Lorenz argues that such features trigger innate feelings of tenderness and nurturing in human adults. He claims that we respond similarly to any configurations that mimic infant bodies and faces, including animals and even inanimate objects such as clouds or rocks.

This page, above: The trademark for Magico, a digital animation company, causes a double take by the way it seems to disappear. Craig Frazier, designer.

Left: The classic puzzle known as the "Wife and Mother-in-Law" challenges the viewer to choose between two equally valid interpretations. Which face do you see?

Right: In this cover for the *Boston Globe Magazine*, the viewer is surprised by the second face hidden in the folds of the Arab's *keffiyeh*. Lucy Bartholomay, art director; Brian Cronin, illustrator.

Opposite page, above right: A trademark for Gakusha Kenkyusha, a Japanese publishing company, creates a shimmering effect with close-set radiating lines. Sumio Hasegawa, designer.

Left: The Fresnel-Ring moiré is an interesting optical effect caused by the combination of parallel lines and concentric circles.

Right: Moirés are used to create eye-catching patterns in the illustrations for *Why Do We Laugh*, a children's book published in 1981 by Creative Education. Sandra Higashi, illustrator.
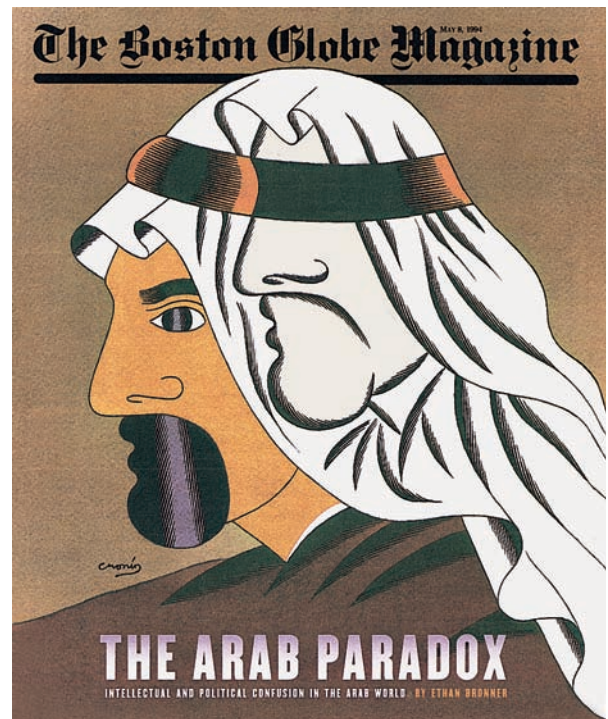
Stephen Jay Gould, historian of science at Harvard, has pointed out that since his "birth" in 1928, Mickey Mouse has undergone at least three redesigns. With each one Mickey has become progressively more juvenile, with larger head, eyes, and cranium; increased distance between nose and ears; lower pants line; shorter, pudgier legs; and so forth.

A special aspect of face perception is our extraordinary sensitivity to the gaze of others. We know immediately when someone on screen is reading from cue cards rather than looking into the lens "at us." We seek eye contact with other humans, and even with our pets. People gaze at faces in particular ways, repeatedly fixating on features that give the most information: eyes, nose, mouth, and (in the case of a profile) ears. This suggests that crucial design elements, such as text, can be linked with these features for greater effectiveness.

But the human visual system is much more complicated — which is why designers can't rely on hardwiring alone. Although the eye itself has changed little over nearly 70 million years, a great deal has been added to the *processing* of visual information.

For one thing, brains have acquired more neurons. A single human brain contains an estimated 100 billion neurons — *almost 17 times the entire population of the planet Earth.* Each of these billions of neurons has the potential to make several thousand connections with other neurons.

Increasingly complex patterns of organization have inserted much more circuitry between input (sense data) and output (behavior). This complex circuitry is sometimes called the brain's *great intermediate net* because it comprises a processing system that mediates between input and output. This neurological network makes possible complex human abilities such as memory, association, language, and imagination.

To appreciate the importance of the great intermediate net, consider frogs. In a frog's visual system, input (information) and output (action) neurons are virtually connected. There's no processing in between. Information about movement in the environment is relayed directly to action neurons, and the frog jumps. The frog can't consider whether the change in light patterns might simply be wind blowing branches, or whether it might be better to just stay still, rather than spend time and energy jumping into the water, then climbing out again. It can't stop to consider whether jumping might attract or repel a potential mate, or whether it might invite praise or criticism from other frogs.

The reason frogs can't consider these things is because they have no circuitry to process them. The frog's response is an example of reflex or involuntary behavior.

As a consequence of the great intermediate net, the human situation can never be so simple as the frog's. The human brain asks:
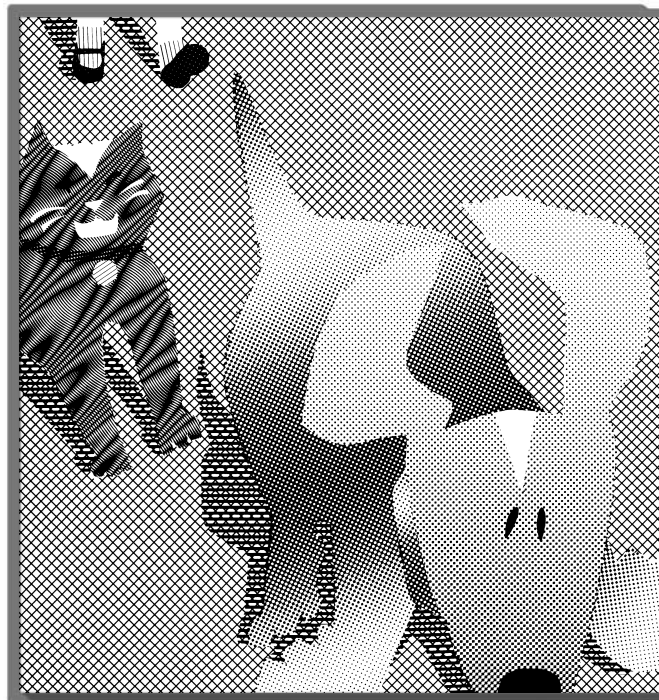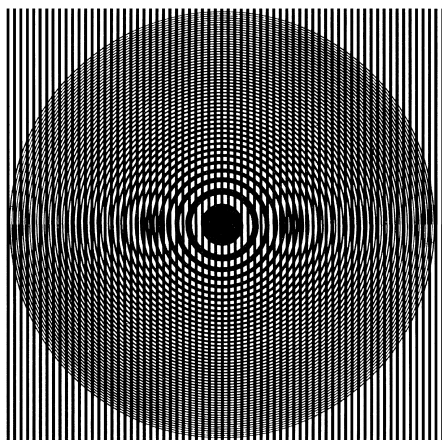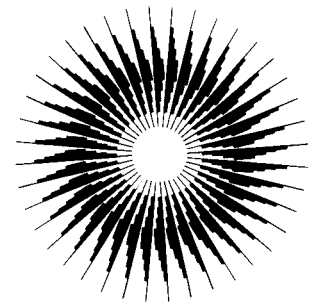
Above: The letterforms of the Öola candy store logo are rearranged into an expressive face that seems to speak its own name. Paula Scher, designer; Pentagram, design firm.

Right: Ethnologist Konrad Lorenz argues that humans feel affection for animals with juvenile features such as large eyes, bulging craniums, and retreating chins (left column). He says small-eyed, long-snouted animals (right column) do not elicit the same response.

Far right: The eye contact and body language of the "got milk?" kittens make this poster difficult to ignore and even harder to forget, especially for cat lovers. Sean Ehringer and Paul Renner, art directors; Hunter Freeman, photographer; Goodby, Silverstein & Partners, agency.

got milk?
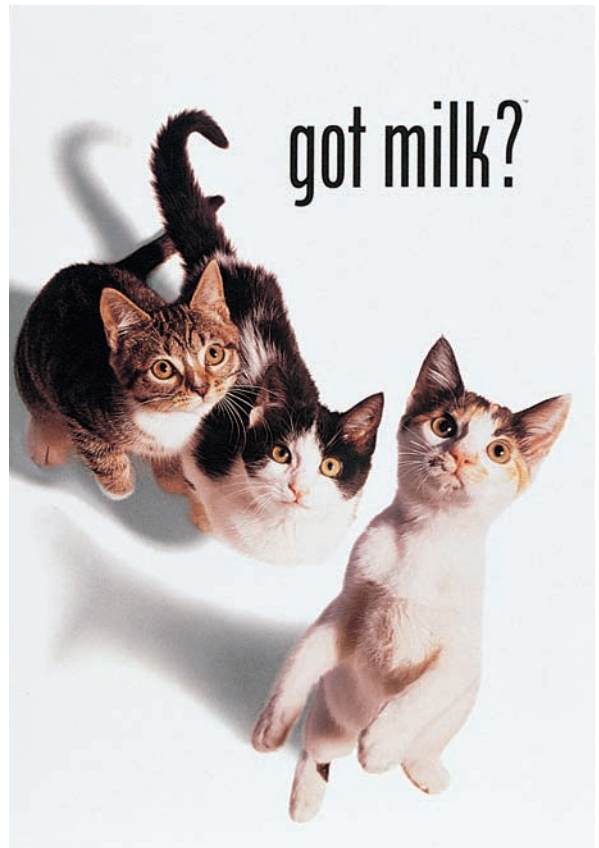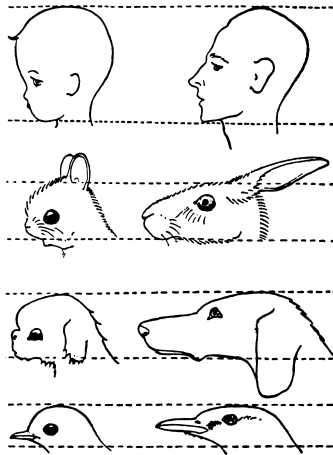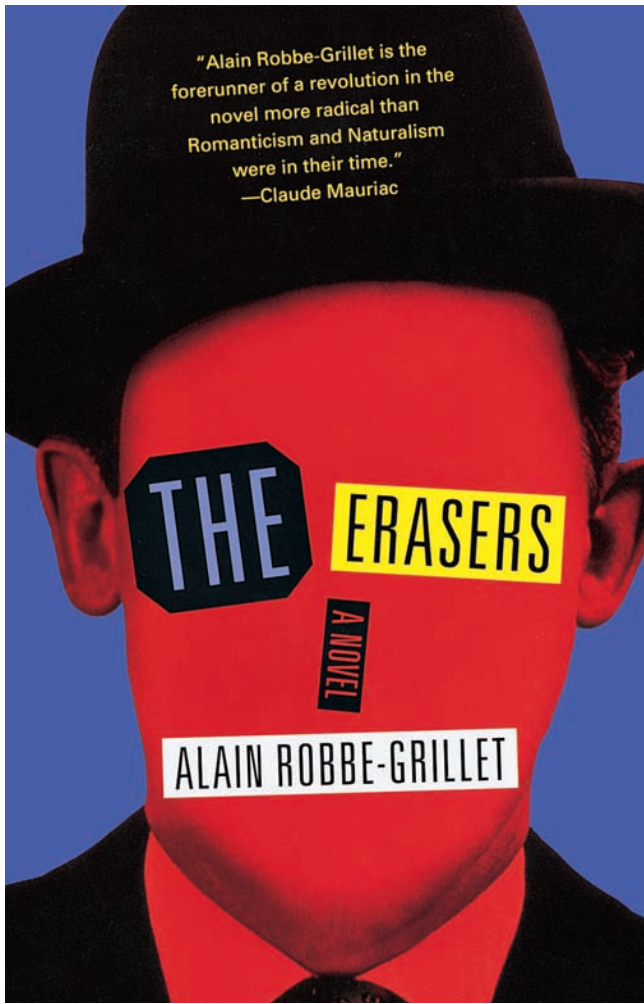
"Alain Robbe-Grillet is the forerunner of a revolution in the novel more radical than Romanticism and Naturalism were in their time."
—Claude Mauriac

THE ERASERS
A NOVEL
ALAIN ROBBE-GRILLET
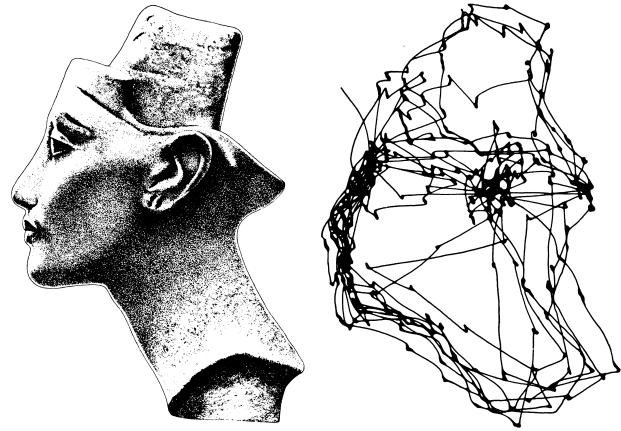
Above: Recordings of eye movements show that viewers studying this portrait head of Queen Nefertiti were interested in features: eyes, nose, mouth, and ears. (Noton and Stark, 1971)

Left: The face on the book jacket for *The Erasers* is interesting precisely because the features are missing, thereby drawing our eyes to the book's title. John Gall, art director; Grove/Atlantic, publisher.

Below: For Wild Sanctuary, specialists in nature recordings, a severely cropped owl face startles the viewer into paying attention. Kit Hinrichs, art director; Jackie Foshaug, designer; Pentagram, design firm.

Right: Familiar objects such as the hot water handle on this page in *Rolling Stone* resonate with our everyday experiences to produce a moment of recognition. The enlarged scale of the handle helps us to see the object from a fresh perspective, and perhaps delight in its vaguely human shape. Fred Woodward, art director.

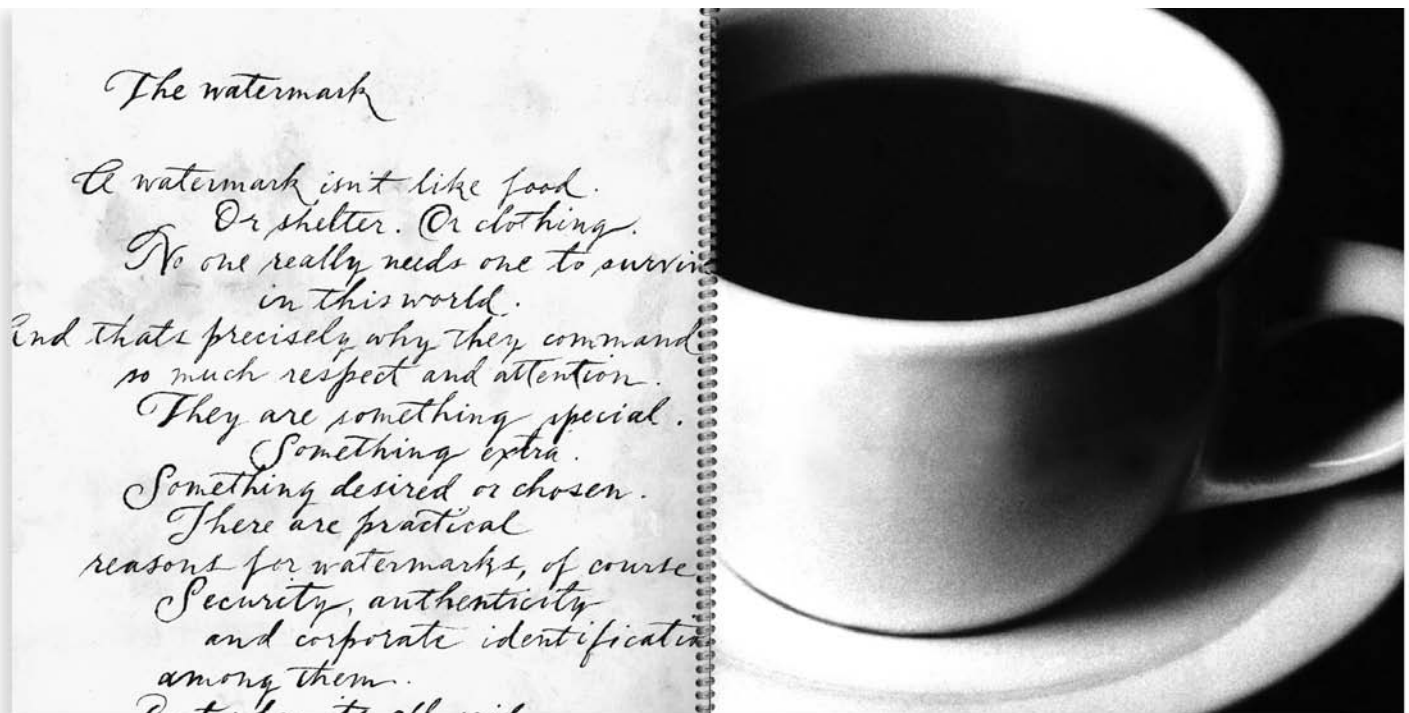Below: Photos of friendly objects are used as backup pages to make the watermarks visible in this brochure for Fox River's custom watermark technology. John Van Dyke, designer; Holly Stewart, photographer; Georgia Deaver, calligrapher.

Opposite: Everyday tools become icons for the household tasks covered in a series of single-topic, how-to books. Michael Bierut, designer; Pentagram, design firm; Redefinition Books, publisher.

THE

HOT

LIST

Popular culture operates on the principle of the eternal return, which is why we are once more confronted with *The Brady Bunch*, Abba and the Hot List. Now, a Hot List can't be all things to everybody. But this year's model does have a few simple goals: to celebrate, to educate and to irritate. We've tried to err on the side of the underdog. We've tried to be politically correct *and* politically incorrect, and if we've pissed off Tipper and Al, so be it. What else? We've tried to capture the sublime and the ridiculous. We've tried to come up with a list that won't embarrass the hell out of us in two years. In order to do all that, we've picked the brains of a few nonresident experts. So. The 1993 Hot List: Because we care enough to share. Because we do it every year. Because we can.

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The watermark

A watermark isn't like food. Or shelter. Or clothing. No one really needs one to survive in this world. And that's precisely why they command so much respect and attention. They are something special. Something extra. Something desired or chosen. There are practical reasons for watermarks, of course. Security, authenticity and corporate identification among them.

What could that be? Is this like anything I've experienced before? What did Mom say to do in this situation? What would Bill do? Should I call someone? What are my options? What are my true feelings about this? What will people think of me? Is it safe? Will I be able to live with myself? What if it rains? and so on. The frog can only jump.

Powerful hardware runs on instructions. In the case of the human brain, culture acts as a kind of software for the mind. Culture instructs our minds and bodies in how to process inputs (experience) and how to produce acceptable outputs (behaviors). Like a complex networking system, shared cultural programs let us communicate reliably and coherently with other people, other "terminals."

To appreciate the great plasticity of the human mind, we need only consider the vast array of human beliefs, languages, and cultures that exist in our world. And yet: each and every infant newly born is capable of learning and mastering any one of them. Naturally, different cultural programming can lead to different responses to the same image or design.

Why do we look?

We don't give equal meaning to everything in our world. Our human visual system is constantly scanning the environment and selecting certain stimuli to pay attention to, while acting as if others do not exist. Perception must be selective — taking in too much at once causes overload.

The window of opportunity for you, the designer, is the moment your viewer — that singular bundle of physiology, culture, and unique experience — comes within seeing distance of your design. How can you prompt your viewer to select that one image out of all the other options in the visual field? What will draw that person's eyes — and attention — to your image?

Purposeful vision. What attracts a viewer's eyes may depend more on his or her purpose than on the image itself. There

are two main modes of looking: *search* and *surf.*

Searching involves seeking a particular image, a particular product, or particular words. When we're searching, what jumps out is the *familiar,* and what gives us the "aha!" is the moment of *recognition* — when we find the thing that matches a model that's *already in our head.* Notice, for example, how the five Olympic rings seem to proclaim themselves, even in images where they are in the background. Or how in a group photograph your own face or the face of a friend seems to jump forward.

Our human visual system is constantly scanning the environment and selecting certain stimuli to pay attention to, while acting as if others do not exist.

Searchers don't *want* to be distracted, and usually work hard to tune out irrelevancies. This is a situation you can use to your advantage, by creating trademarks, signage, and packaging that are unique and easily recognizable. Supermarket shelves are full of products that play to this search mode.

Surfers, on the other hand, let their eyes meander through the visual landscape. They scan the field with rapid eye movements, jumping from one point to another,

making occasional stops (fixations) at certain places. Just as with faces, their fixations tend to be on features that promise the most visual information about the subject: angles, sharp curves, edges, points of contrast.

The classic attention-grabbing strategies — bright color, intense contrast, sensational or violent imagery — are designed to attract the attention of surfers. But when you're looking at an array of, say, detergent packages, all screaming at you with fluorescent colors, what stands out? It might be something black and white. The viewing context is an integral part of design perception.

Figure and ground. When we encounter any visual field, the most fundamental distinction our eye-brain system makes is to identify contrast. Contrast prompts our visual system to locate edges and contours, and these become the basis for "figure" and "ground" relationships (or positive and negative space).

The so-called Peter-Paul Goblet remains one of the most effective, if commonplace, illustrations of the perceptual characteristics of figure and ground. Whichever figure you concentrate on — goblet or faces — will appear to be on top, luminous and bright. Whichever is background will seem to extend behind the figure. The figure seems substantial and meaningful; the background formless and less important. What's interesting is that the physical image doesn't change. These are changes in perception that occur as we interact with the image. Graphic designers have made effective use of this

Fluxus Vivus

4 November through 4 December 1993

month-long celebration of the work of Fluxus artists from the inception of Fluxus in the early 1960s through the present.

introduced at festivals in Wiesbaden, Dusseldorf, Wuppertal, Copenhagen, and Paris in 1962, which established Fluxus as an historical movement closely allied with the traditions of twentieth-century avant-garde art. The Arts Club's Fluxus Vivus will feature original Fluxus artists in historical and contemporary programs. Photographs by Peter Moore and posters of historical Fluxus performances will be on display in The Club's gallery; photographs of Arts Club performances will be added bit by bit throughout Fluxus Vivus.

for reservations and additional information please contact
The Arts Club of Chicago
109 East Ontario Chicago IL 60611 USA
312-787-3997 (t) 312-787-8664 (f)

Hours
10:30-4:30 Mon-Frii
closed Sun

Design: Thirst
Printing and Separations: Carqueville/TCR Graphics

FLUXUS VIVUS

Flux à la Carte Performance
Laurie Anderson
Alison Knowles
Larry Miller
Ben Patterson
and Ben Vautier

Guests at Flux à la Carte performance will be seated Cabaret-style in the Salon. They will be offered a menu of titled performances when selected, will be performed at their tables.

Thursday and Friday November 4 & 5
7 p.m.
$20/15 students.

Admission includes wine, cheese, bread and fruit. Advance reservations are mandatory and are obtained by sending payment (check, money order) to The Arts Club. To secure reservations payment must be received by The Arts Club by October 28. Sorry, no cancellations.

Concert by Geoffrey Hendricks and Larry Miller Slow Food Fluxus banquet prepared by The Arts Club's own Chef Alexander Clerc
Tuesday 16 November
Dinner at 6:00 p.m.
Concert at 6:30 p.m. Dinner at 7:30 p.m.
$40/20 students

Advance reservations are mandatory and are obtained by sending payment (check, money order) to The Arts Club. To secure reservations payment must be received by November 8. Sorry, no cancellations.

Dick Higgins reading from Sonata for Prepared Paradise and other works.
Thanks and More.
composers Jackson Mac Low and Anne Tardos.

Saturday 20 November
1 p.m. $10
Reservations recommended.

Fire and Water, A Concert of Early Fluxus Works
Conceived and Performed by Yasunao Tone and Geoffrey Hendricks
Thursday 2 December at 6 p.m.
Concert at 7 p.m.
$20 per person
Reservations recommended.

Flux Concert
Chicago Sky Line, Geoffrey Hendricks and Musica Iconologos and Yasunao Tone
Friday 3 December
Cash bar at 6 p.m.
Concert at 7 p.m.
$20 per person
Reservations recommended.

This fall, four prominent Chicago art institutions salute the thirtieth anniversary of Fluxus—an art form that challenged the conventions of artistic media, the role of art and the artist, and the relationships between action and object, object and museum, and art and life. The participants in "Fluxus festival Chicago 1993" include The Arts Club of Chicago, Museum of Contemporary Art, Mary and Leigh Block Gallery at Northwestern University, and Gallery 400 at The University of Illinois at Chicago.

Fluxus Festival Chicago 1993 Flux Bus Guided Tour with Alison Knowles' Bagged Identical Lunch. Guided tour of exhibitions of The Arts Club of Chicago Gallery 400 at University of Illinois at Chicago, Mary and Leigh Block Gallery at Northwestern University, and Museum of Contemporary Art.

Saturday 4 December
Meet at 10:30 a.m. at The Arts Club of Chicago. Tour will last four hours, and will end at Museum of Contemporary Art. $20 includes Alison Knowles' Bagged Identical Lunch, which consists of "a tunafish sandwich on wholewheat toast with lettuce and butter and with a cup of soup or a glass of buttermilk." Advance reservations are mandatory and are obtained by sending payment (check, money order) to The Arts Club. To secure reservations payment must be received by November 27. Sorry, no cancellations.

Automobile—Club de Suisse

protégez l'enfant !

Facing: The violent typography on this large-scale poster assaults our senses, repelling some viewers while attracting—ideally—the avant-garde followers of the Fluxus art movement. Rick Valicenti and Mark Rattin, designers; Thirst, design firm.

Left: A 1955 poster for the Automobile Club of Switzerland creates a vision of impending doom by virtue of the extreme contrast in scale between the speeding motorcycle and the small boy. "Protect the child!" it screams. Josef Muller-Brockman, designer.

Below: Is that blood? Black humor can intrigue the reader, as in this two-page ad for Gametek's Quarantine, a software driving game. Markham Cronin, art director. Crispin & Porter Advertising, agency.

QUARANTINE
The delightfully violent driving game.

interactive quality in many engaging ways.

Come closer. Once our eyes have fixated on an image, we can be motivated to move physically closer to it. This happens when different distances offer different readings, different experiences, different meanings — what you see from one distance is not what you see from another.

The design of the Vietnam War Memorial in Washington, D.C., is a robust example. From a distance, the black marble panels are barely visible. Somewhat closer they form an architectural "V." At a distance too far to read them, the list of names is awesome in length and number. When you get near enough to read the names, you see your own ghostly reflection in the marble's polished surface, a plane simultaneously displaying the moving, ephemeral images of the living and the permanent, disembodied names of the dead.

Images that *dissolve or resolve* upon approach often intrigue us. We sometimes persist in trying to identify the precise point at which the image loses or gains identity. Artist Chuck Close made a hallmark of the dissolving/resolving characteristics of his mural-size paintings.

Older conventions of graininess evolved from blow-up photography and halftone printing. Now, however, the pixilations, zooms, and transformations of digital technology have contributed to a more frequent appearance of dissolving/resolving images. Although such images are graphically fascinating — especially to the designers who explore them — one should reflect upon the implications of encouraging a viewer to move away from a design in order to see it better.

Fill in the blanks. Where visual information is missing, the mind tends to fill it in. Getting the viewer to mentally complete an image is an effective way to elicit "audience participation."

One category of such images is *subjective contours*. Where an edge is not physically present in the design, the eye-brain system "sees" it anyway —

as in high-contrast photography. Such images can be challenging, such as in the posterized photo of a Dalmation walking through dappled sunlight. Or the head and shoulders of a bearded Jesus, said to be recognizable only to true believers. One of the interesting aspects of this kind of image is that once you've seen it, you can never again *not* see it.

When we encounter any visual field, the most fundamental distinction our eye-brain system makes is to identify contrast.


The amount of visual information that can be absent is astonishing. I once posed the following question to a design class: How much information can you remove from a picture and still retain a recognizable image? By experimenting we discovered that fully 50% of the visual information could be removed without significantly harming recognition. However — we also found that it mattered which 50% was taken out. Least detrimental was "interrupting" the image in a periodic or regular fashion,

as if looking through a mini-blind or screen.

Color. Most of us are taught that color (along with line, shape) is one of the basic elements of design. However: our perception of any color is heavily influenced by the colors surrounding it, and, further, the changeable properties of ambient light can cause the same swatch of color to look brilliant or dull. For these reasons, responses can be difficult to test and predict. In most instances, color actually conveys little *essential* information — witness the effectiveness of black-and-white photography.

Certain color effects depend on activating the viewer's perception, and therefore are naturally interesting to look at. These include phenomena such as *simultaneous contrast* (identical colors or values look different on different backgrounds), *vibration* (bright colors of equal intensity seem to shimmer along the edges where they meet), and *transparency* (the color of a common area of "overlapping" shapes appears to be a mixture of the other colors). The artist Josef Albers developed a whole series of color exercises designed to teach perceptual color skills. You can find the full series of prints that accompany his text *The Interaction of Color* at most good art libraries.
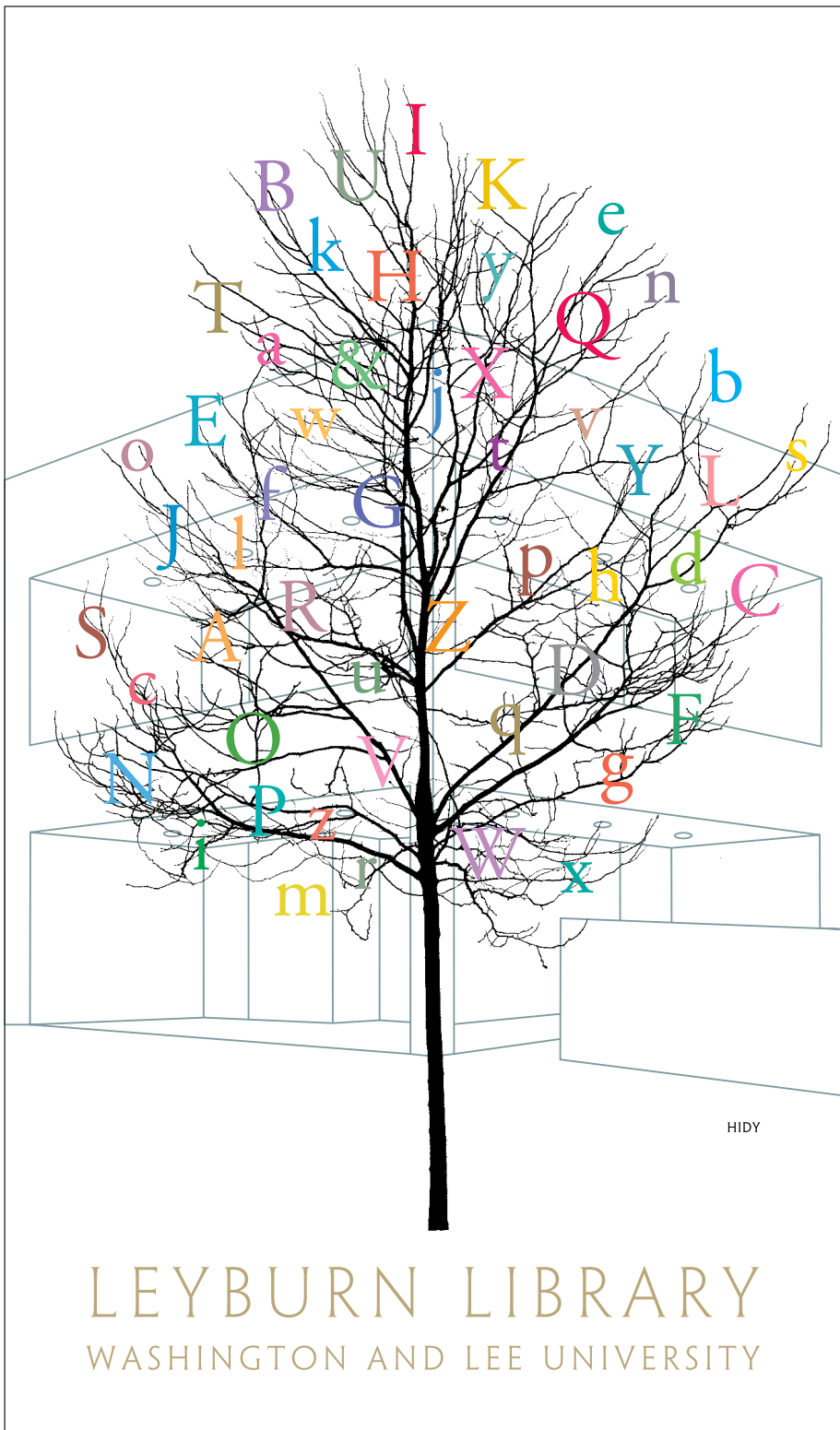
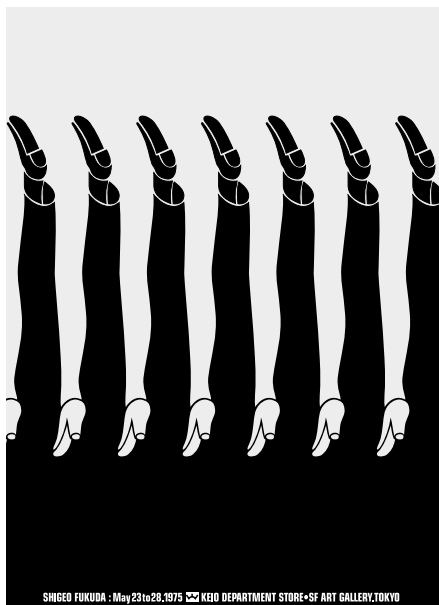From a distance, small areas of color tend
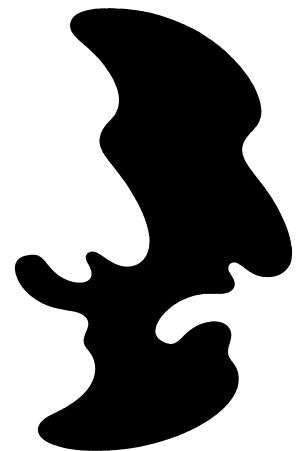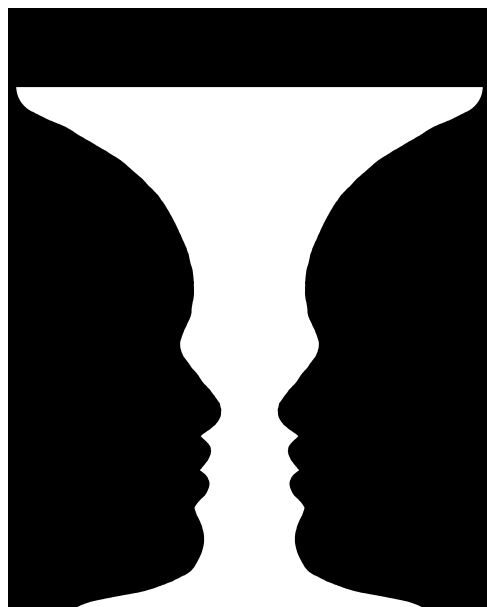
Opposite left: The Peter-Paul Goblet is the familiar example of reversible figure-ground relationships. Most people see the goblet, and only notice the two faces once they've been asked to look for them.

Opposite right: The two faces in a proposed logo for Britain's National Theatre can be read almost simultaneously. The white mask is inextricably connected to the black mask, just as comedy is often linked with tragedy. Pentagram, design firm.

Below: A 1975 poster for a design exhibition uses reversible figure-ground relationships to invite the participation of the viewer. Shigeo Fukuda, designer.

Right: Our eyes are attracted by this poster's delicately rendered tree, but as we draw closer we delight in the discovery of the letters. Finally we notice the architectural lines of the library itself. Lance Hidy, designer.

SHIGEO FUKUDA : May 23 to 28,1975 ▧ KEIO DEPARTMENT STORE • SF ART GALLERY,TOKYO

HIDY

LEYBURN LIBRARY
WASHINGTON AND LEE UNIVERSITY

Right: In this symbol for the 1968 Olympic Games in Grenoble, the image of the skier can be read only from a distance. Up close, the skier disappears and we are left with only curving lines—the "feeling" of skiing. Roger Excoffon, designer.
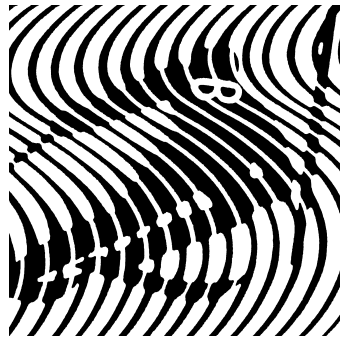
Right, below: The iconic imagery of a theatre poster delivers the initial punch, followed by the dizzying effects of overlapping half-tone dots which have been enlarged and printed out of register. Paula Scher, designer; Pentagram, design firm.

Below, top: Our eye-brain system has little trouble deciphering the contours of a logo for a 1966 die-casting convention for the Zinc Development Association. The interest lies in the contrast between the embossed and debossed sixes. Pentagram, design firm.

Below, bottom: An example of subjective contours, this high-contrast photograph of a bearded man is said to be recognizable as Jesus—but only to true believers. The devilish thing is that once you've seen it, you can never *not* see it.

Opposite: The violently drawn visage of Richard III causes us to "feel" the pen strokes, almost as if we were creating this poster ourselves. James Victore, designer; The Shakespeare Project, client.

to lose their identities, and are perceived as blends, rather than as separate hues. We use this effect *(optical mixture)* all the time in color printing, and recognize its painterly effects in impressionist art. Because people's perceptions of colors change with their distance from them, you can use this aspect of color as a means to invite viewers to "come closer."

In most instances, color conveys little essential information—witness the effectiveness of black-and-white photography.

Motion. Motion is a natural attention grabber, but graphic designs don't usually move. Instead, you must settle for techniques that create an illusion of motion—or, more accurately, a *reference* to motion.

Imprecise or blurred edges suggest movement, because when actual objects move, their contours cannot be clearly seen. Stroboscopic and multiple-exposure effects integrate various phases of an action into a single, simultaneous image. This technique is associated with photographers such as Harold Edgerton, and the Futurist painters Giacomo Balla and Marcel Duchamp—whose *Nude Descending a Staircase* (1912) was notorious in its day. Both blurred contours and stroboscopic images require your viewer's active perception.

Another way to incorporate motion is to design an image that allows the viewer to vicariously reconstruct the movements involved in creating it. This "visible process" approach is characteristic of Oriental brush calligraphy, as it was the stylistic hallmark of the Abstract Expressionist painters. The use of vigorously hand-drawn images or words in graphic design can evoke a powerful kinesthetic resonance in your viewer—it moves the perception beyond the eye-mind system and into the body.

Depth. Like motion, depth is not usually an actual component in graphic designs. Nonetheless, you can get viewers to "fill in" or imagine a third dimension that is not actually there. Such perceptions can be quite compelling.

Joseph Binder's U.S. Air Force poster is a classic example. A formation of airplanes appears to be flying far below the wing, using a dramatic size contrast to suggest deep space. The assumed viewpoint is from above and to the front of the wing—almost as if the viewer were in the pilot's seat. To "fill in" the edge of the wing tip, the viewer must allow it to perceptually burst beyond the borders of the frame. The strong diagonal and the bold figure-and-ground relationships add to the dynamism of this image.

The commonplace technique of placing type "on top" of an image can be the basis of playing with depth. The type appears to float in front, as if on a sheet of glass, thus encouraging the illusion of space. This perceptual distance between type and what's "behind" it can be greatly enhanced by adding elements of light and shadow that suggest specific planes. Sometimes the smallest area of "overlapping" is all that's needed to flip an image into three-dimensional space.

What does it mean?
So far, we've considered mostly form, and not much in respect to content. But—once you've captured your looker's visual attention—content is the major determinant of whether you keep that person's attention long enough to get your meaning across.

Familiarity. Familiar images can provide an instant pathway to large conglomerates of meaning that already reside in our minds. The familiar can be newly fascinating when combined with elements of humor, double meanings, or distortion.

Take, for example, Smirnoff's packaging for Citrus Twist, where familiar bottles and boxes are distorted into surprising "twisted" shapes. The power of these images depends on our familiarity with

their normal, unaltered shapes.

Another technique for making the familiar new is to present it in such a way that we're forced to see previously unnoticed properties. A well-known poster for the Chicago Public Library presents the letter "a" at such a large scale that we notice the interplay of its positive and negative shapes. We are suddenly made aware of the "beauty" of reading.

Familiar images combined in fresh and surprising ways can also provoke new associations of meaning. For a New York City Opera poster, surrealism in the manner of Magritte was used to jar viewers into paying attention. We see Lucia di Lammermoor's long hair gripping the crown of her head and framing a single tear, and we find it compelling and mysterious.

In a recent British Airways print campaign, a photograph of a person's head is superimposed on another scene, creating a simple metaphor. For example, one scene depicts a white dove in a marble birdbath, wings spread, splashing water made luminous by sunlight. Replacing the dove's head is the head of a man luxuriating in the spray of a shower.

It's easy to create shock value or strange-

Facing: Using only type and arrows, a 1948 Monza poster captures the speed, noise, and excitement of auto racing. Max Huber, designer.

Right: Readers can almost hear Rosie as she completes the spelling of her name. The characters appear to hover just above her face. Gary Rogers, designer; Newsday, publisher.

Below: The scale difference between a single airplane wing and a distant squadron creates the illusion of deep space on this 1941 war poster. Joseph Binder, designer.

Below right: A shimmering effect called vibration is used to good effect on a direct-mail piece for Springhill Opaque. The intense colors grab our attention while demonstrating the paper's printing capabilities. Bret Terwilleger, designer; Oden & Associates, design firm.

FARE
FAN

NEW YORK NEWSDAY'S
WEEKLY REPORT ON
ENTERTAINMENT & LIVING
SUNDAY, MAY 8, 1994

STREETS OF FIRE

CHAPTER 36:
Francesca's Ex-Husband Suddenly Reappears

TV
A Stephen King Apocalypse

BOOKS
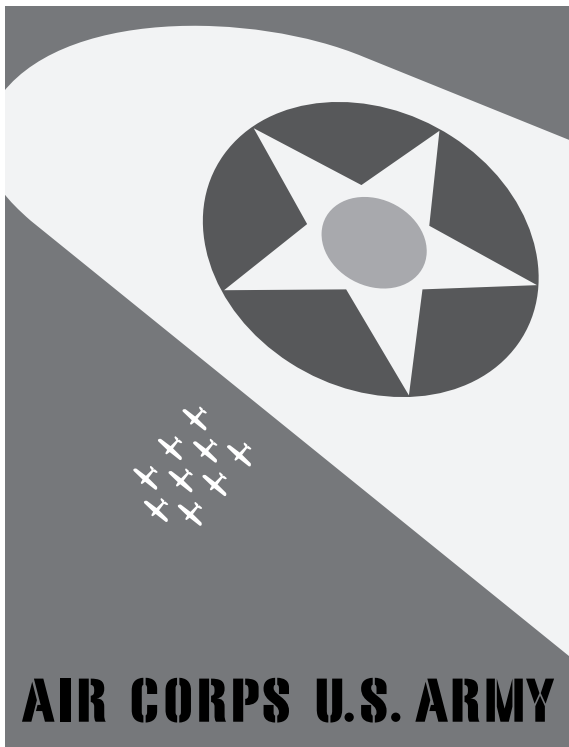Leonard Bernstein's Other Life

PULLOUT SECTION

TRAVEL
Honeymoon Adventures

ROSIE

Hilary de Vries talks to that O'Donnell character

AIR CORPS U.S. ARMY

All the things that matter most about opaque papers, you can count on one hand. NEW Springhill Opaque now has a grip on every one.

Springhill

a

is the first letter of the alphabet
there are twenty-five more
the chicago public library has all of them
in some very interesting combinations

ness with distortions or odd juxtapositions of familiar elements — any 10-year-old can do it, and almost any random combination will result in some sort of weirdness. Whether that image is effective, however, is another question entirely, and the answer lies in the specific meaning conveyed to the viewer. Technique is no substitute for ideas.

Playing with negative meaning. Violence, fear, anxiety, and abnormality are without a doubt attention grabbers. In a Nike Australia ad, an agitated hand-scrawled headline declares: "I'm not saying I'd DIE for my team, but I'd be willing to go into an extended COMA." The ad resonates with the extreme frenzy of fans and players, and offers relief only in the familiar and straightforward handling of the Nike logo and product photo. Those of us unfamiliar with — or unsympathetic to — rugby's cultural ambience are apt to remain unstirred.

Black humor runs the risk of making an image too memorable, and turning off viewers in a big way — for example, joyously morphing human babies into skewered broiling chickens, or showing a chef with a baby in a stew pot, or posing a plump minority woman with a noose around her neck. Images of cooking babies and hanging women seriously offend many people. No matter how witty the text, such images remain extremely disturbing, and a bit too reminiscent of Jeffrey Dahmer. They may cause viewers to actively avoid buying from the sponsoring companies.

Sex and nudity. There is no denying that images of unclothed bodies carry sexually charged meanings. We Americans tend to assume that sex and nudity speak to some universal urge, and therefore are sure-fire attention getters. But the meaning of nudity is not universal — it's culturally specific.

Sex in the mainstream media is a relatively recent trend. Indeed, Philip Meggs's standard, *A History of Graphic Design,* contains virtually no such images in its discussion of design in the twentieth century. The effectiveness of sexual images derives from their topical meanings in popular culture — and not from hardwired perceptual responses.

Visual syllogisms. Other images constitute a visual form of the classic logical formula: If A = B, and B = C, then A = C. For Pirelli, Italy's Armando Testa substituted a tire for the head and trunk of a forward-moving elephant. The syllogism is instantiated thusly: If Pirelli tire = elephant, and elephant = rugged, then Pirelli tire = rugged. The power of such images lies in their coherent unity: all the essential information is mnemonically *encoded in* a single dynamic image.

Naturally, following codified guidelines such as these will not guarantee great design. Experience, skill, and intuition are needed to transform this basic knowledge — what make us look — into powerful visual communication.

Highly effective graphic design is an interactive process that takes advantage of 70 million years of hardwiring and our propensity to "converse" with images in relatively predictable ways. Try building your images on these primary physical and cultural truths — you may find your work imbued with a power unmatched by designers who simply follow fashion. ✳

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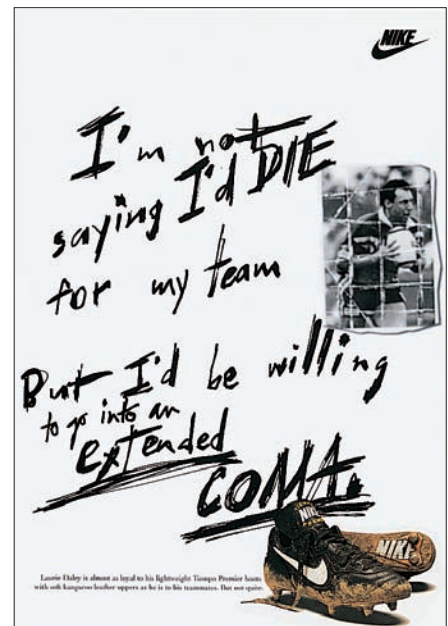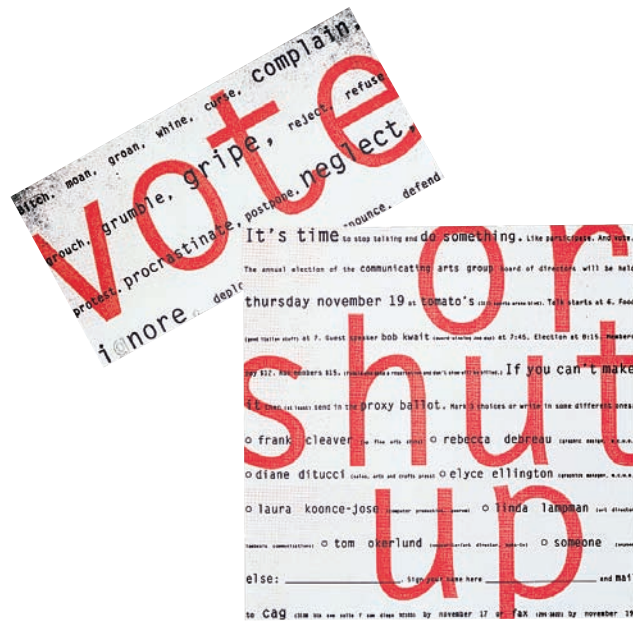
Opposite: Consumers did a double take when they encountered the twisted bottle and gift carton for Citrus Twist. Barney Hughes, designer.

Opposite, below: Most people read without noticing the letters themselves. Here the letter "a" is taken out of context and presented poster size, enabling the viewer to see the "beauty" of reading. John Massey and John Riebeu, designers; Container Corporation of America, sponsor.

Opposite, below right: The violent humor of this Nike ad targets do-or-die sports enthusiasts by flattering a self-image of gutsiness and team loyalty. The uninitiated are horrified by the message, of course. Dan Wieden, creative director; Wieden and Kennedy, agency.

This page, top: The designer knows his hostile-looking message for the San Diego Communicating Arts Group will meet with approval and not rejection. A general audience would probably not find the ultimatum as appealing. John Ball, designer; David Quattrociocchi, illustrator; Mires Design, design firm.

Left: Our curiosity finds it hard to resist this cunning combination of hair and hands. Why is Lucia holding her head? Why is she crying? Should I go to the play and find out? Rafal Olbinski, illustrator.

Below: The rugged longevity of Pirelli tires is symbolized by an elephant on a 1954 poster. The image is a good example of a visual syllogism. Armando Testa, designer.