by Marty Neumeier

While the meaning may come from the concept,

Pagecraft

the magic comes from the craft.

Goethe said that "the highest problem of art is to cause, by appearance, the illusion of a higher reality." To continue along this line of thought, we can say that each art form is bounded by characteristics that determine its primary illusion.

The primary illusion of dance, for example, is lightness. We humans are profoundly aware that our bodies are constrained by gravity, so we experience delight when we see a dancer appearing to defy it.

The primary illusion of music is the manipulation of time. Though music can only be perceived sequentially, beat by beat, it has the ability to focus our minds entirely on the moment, as if time were eternal.

The primary illusion of painting is space. The painter creates an intriguing illusion of three-dimensional space on what the viewer knows to be a two-dimensional surface.

In writing this article, I'm relying on another primary illusion: memory. It may seem as if I'm rattling off my thoughts in real time—simply telling you what I remember. Behind the scenes, however, I've spent weeks organizing my ideas and researching my facts, and further weeks wordsmithing those ideas and facts to present the appearance of rattling them off.

Graphic design, by comparison, is not a primary art form with a single characteristic illusion, but an interactive hybrid, a descendent of painting and writing. It can be further complicated by the addition of a sequential component—the pages of a book, for example.

Yet the printed page, when crafted for an audience with exceptional skill and understanding, is barely discernible from magic. The audience knows that the page is an illusion—ink on paper, nothing more—but willingly accepts the illusion as reality.

SLEIGHT OF PAGE. Most designers will agree that execution means little without a good concept to execute: the *what* is more important than the *how*. The danger is that, without good compositional skills, the *what* quickly turns into *so what*, and the viewer moves on to greener pastures. The art of illusion can amplify the excitement of the visual experience. It can grab and hold the attention of the audience. It can dramatize a message and—in the hands of a skilled practitioner—make it seem indelible.

So, if illusion is the secret of art, what are the secrets of illusion? Are the secrets really secrets, or ordinary principles that are simply hidden, esoteric, or difficult to grasp?

In all likelihood, none of the above. The secrets of pagecraft if they are secrets, remain the property of an elite few because they happen to be visual, not verbal, and are therefore difficult to share. Yet they're not the hocus-pocus of a priesthood. They're relatively simple principles that anyone can learn. Some designers absorb them by osmosis, while others actively pursue them. For designers who practice them consciously, deliberately, and regularly, they become as automatic as breathing. At that level of mastery, when the principles of pagecraft are no longer a collection of disjointed techniques but sinew, heart, and bone, the designer's art can truly seem magical. It's a matter of informed intuition.

THE FUNDAMENTALS OF PAGECRAFT HAVE TO DO WITH ILLUSION: MAKING AN IMAGE LOOK REAL, CREATING CERTAIN KINDS OF SPACE, SETTING HIERARCHIES OF INFORMATION, DIRECTING A VIEWER'S EYES, ELICITING AN EMOTIONAL RESPONSE, DRAMATIZING A KEY POINT.

An example of informed intuition is driving a car. At first you have to think about where to put your feet, how to change gears, the feeling of steering, the operation of the dashboard, the meanings of road signs, the rules of the road, proper reactions to traffic situations, and many other fundamental skills. After you've had a few years of practice, your driving becomes more automatic. Soon you begin to experience moments when you can't remember how you got someplace, because you were busy thinking about something else. The bad drivers we complain about are usually those who haven't mastered the fundamentals. Their driving may be intuitive, but it's not informed.

The fundamentals of pagecraft have to do with illusion: making an image look real, creating certain kinds of space, setting hierarchies of information, directing a viewer's eyes, eliciting an emotional response, dramatizing a key point. Like driving a car, these fundamentals can take you places without conscious effort, leaving your mind free to concentrate on strategic issues.

There will always be those who believe that essential knowledge can't be taught, only known. There's a saying in Zen doctrine, as translated by Leonard Koren in his book *Wabi-Sabi*: "Those who know don't say; those who say don't know." The Japanese are perhaps wary of explaining artistic concepts for fear of robbing them of their mystery. We Westerners have no such trepidations. At the risk of exposing the designer as a fake, let's dump out his bag of tricks and examine each technique more closely.

WHAT'S IN THE BAG? *Space.* The illusion of space is the primary illusion of painting. It's a captivating one, because the audience is aware that graphic design is acted on a two-dimensional stage. Yet the space we create doesn't have to be three-dimensional; it can even be resolutely two-dimensional. Often, it will combine elements of both. The skill lies not only in knowing how to create various kinds of space, but in knowing when to use each kind.

Here are some of the perceptual phenomena that allow us to create space on the page: 1) large shapes appear closer than small shapes; 2) dark colors appear closer than light colors; 3) shapes that overlap other shapes appear to be in the foreground; 4) shadows create the appearance of volume; and 5) converging lines suggest distance.

To Boston designer Nancy Skolos, who works closely with photographer-husband Tom Wedell, space is their playground of choice. "We both like architecture and three-dimensional things," she says. "I'm really interested in composition, and in finding some sort of truth in the way things hang together." Wedell's photography furnishes Skolos with images that have their own dimensional charge, which she can then twist, subvert, and generally distort to create a new kind of space. "I like to turn the picture plane inside out to see what it can become."

But why bother? Aside from the personal satisfaction of building an interesting-looking page, where does it get you? Well, for one thing, the human visual system is fascinated by realism. When an audience is shown graphics that look "real," it can't help but pay attention, at least for a moment. By distorting space, the designer can hold the audience's attention a little longer. "It is the function of art to renew our perception," said Anaïs Nin. "What we are familiar with we cease to see." Flatness, or a lack of three-dimensionality, reminds the audience that the image is nothing more than plain old ink on paper.

Contrast. Contrast—dark and light, large and small, straight and curved, new and old, horizontal and vertical, rough and smooth, and so on—may be the mother of all compositional tools. When arranged near each other, opposites tend to amplify each other's qualities. Typographer Jan Tschichold once identified contrast as "the most important element of graphic design." Paul Rand was more blunt: "Without contrast," he'd often growl, "you're dead." Why? Because contrast creates drama.

In literature, the secret of creating drama is conflict. In the visual

arts, it's contrast. Although the three most useful contrasts are large vs. small, dark vs. light, and the punctuation of space with strong accents, you can build drama from any number of contrasts, including opposites of mood, rhythm, or complexity.

New York designer Massimo Vignelli believes that most of the anemic design we see suffers from a lack of contrast. "You need the contrast of scale. When you use scale to create something out of the ordinary, to produce an unexpected emotion, you get drama. It's about passion and emotion. In Italy, of course, we have them both without even trying. They're part of our genetic information." Those who are not Italian will have to work a little harder.

London designer John Rushworth of Pentagram thinks of contrast in terms of tension between elements on a page. "Tension is the way elements interact," he says. "It has to do with white space, how a piece of type interacts with a picture, and where you place that type and that picture in your overall layout. You keep moving your elements around on the page until you get that indication in your stomach that says it's right."

In order to apply contrast effectively, a designer must develop an innate sense of balance. The layout of a page has been likened to a tightrope walker who steadies herself, not with the aid of a formula, but with a parasol. Her sense of balance—or imbalance—is essentially a matter of feeling. Yet it helps to start with a conscious knowledge of the counterweights and ballasts, or the range of contrasts, we have at our disposal.

Pacing. Space and contrast are tools we share with painters, who, like us, are trying to create rich visual experiences on a two-dimensional plane. What sets us apart from our paint-bespattered brethren is our need to sometimes tell a story sequentially, over a series of pages. Here the space becomes three-dimensional, and the contrast must be applied to the overall sequence as well as to the page. How do we keep a catalog from becoming a tedious cavalcade of facts? How do we glue the disparate viewpoints of an annual report into some semblance of narrative? How do we make readers believe that the brochure they're holding is more than page after page of printed ephemera?

How? With pacing. Pacing is the art of managing two opposites: the need for order and the need for variety. Without order, the reader is likely to become tired, frustrated, or bewildered by an overabundance of details. Yet without variety, the reader may become bored, overwhelmed, or numbed by too much repetition. By walking the tightrope between order and variety (don't forget your parasol), you can keep the reader turning pages, anxious to see what happens next.

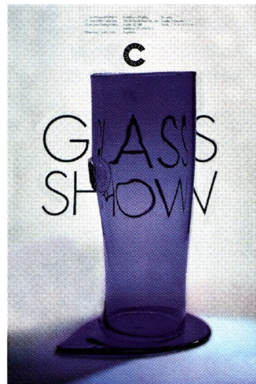
"In books, magazines, and any kind of design that has more than one page, the rhythm, the sequence, the pace is so important," says Vignelli. "You need to create surprise. You can have a series of similar pages, then put in a black spread with one little word in the middle—BOOM! Sometimes you can have three very full spreads—

Rushworth is the regular designer for *P* magazine, Polaroid's showcase for instant films. The *trompe l'œil* corrugated paper on the cover is carried through to an article on the rough-style portrait work of Andrew and Stewart Douglas. The masking tape looks so real that one can't help trying to peel it off. Pentagram, design firm.

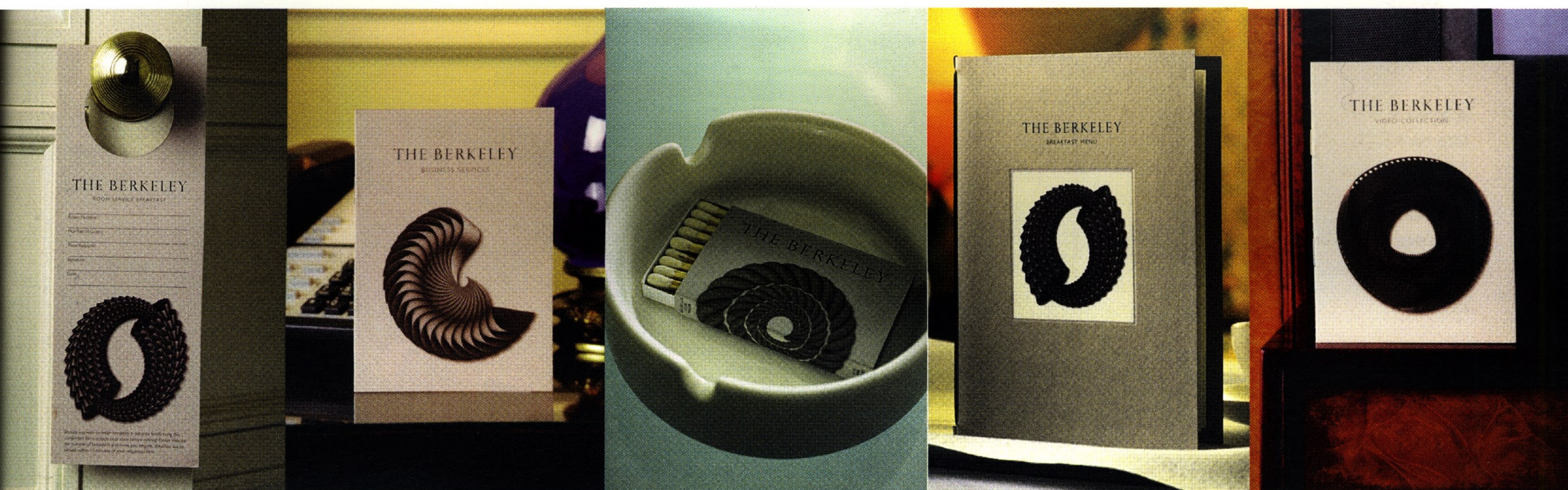
The identity system for The Berkeley, a London hotel, is marked by a series of circular emblems. While the emblems themselves are quiet and reserved, their three-dimensional rendering makes them jump off the page. John Rushworth, designer; Pentagram, design firm.

The title, screenwriter, and leading actor for *Danny, The Champion of the World* are presented center stage. Though Rushworth's layout breaks some of the rules of movie posters, it follows a principal rule of page-craft: contrast of scale. John Rushworth, designer; Pentagram, design firm.

JOHN RUSHWORTH



The beautiful imperfections of handmade glass are the focus of this poster for the Crafts Council Gallery. John Rushworth, designer; Pentagram, design firm.



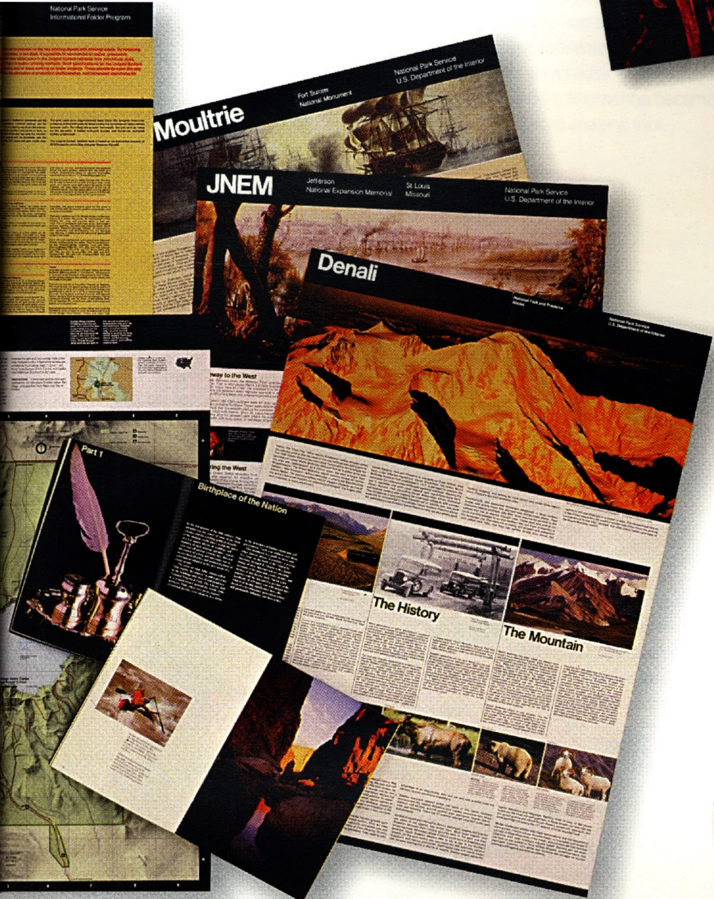
The cover of an exhibition booklet mixes the clarity of a contemporary typeface with the run-together format of ancient texts. The new and the old, the legible and the illegible, form interesting counterpoints in this discussion of handlettering in the age of the computer. John Rushworth, designer; Pentagram, design firm; Crafts Council, publisher.

A series of brochures unfold to poster size, each panel revealing a different part of the message. The bright fluorescent papers give the impression of full color while sticking to the client's two-color budget. Massimo Vignelli and Rebecca Rose, designers; American Center (Paris), client.

The United States National Park Service hands out millions of site maps to visitors each year. In 1977 Vignelli developed a prototype for the maps, with a flexible grid and a limited range of typestyles; a team of designers, writers, and photographers executed the variations. He also designed similar formats for the National Park Service's books and exhibits.

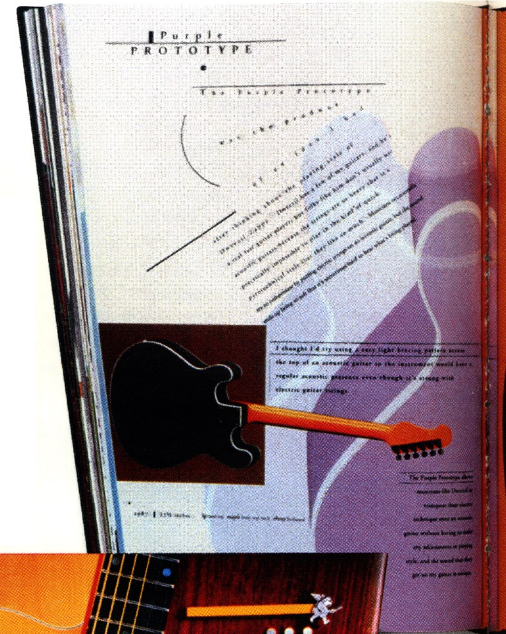
Who needs color when you've got contrast? With only white against black and big against small, the shopping bags, tissue, and wrapping paper for a Spanish department store achieve maximum impact. Massimo and Lella Vignelli, designers; Galerias Preciados, client.

A book on Federico Fellini's costumes alternates full-bleed scenes from his films with large-type spreads that suggest the black-on-white of movie titles. The book was the companion piece for an exhibit, also designed by the Vignelli studio. Massimo Vignelli and Michele Nason, designers; Charta (Milan), publisher.

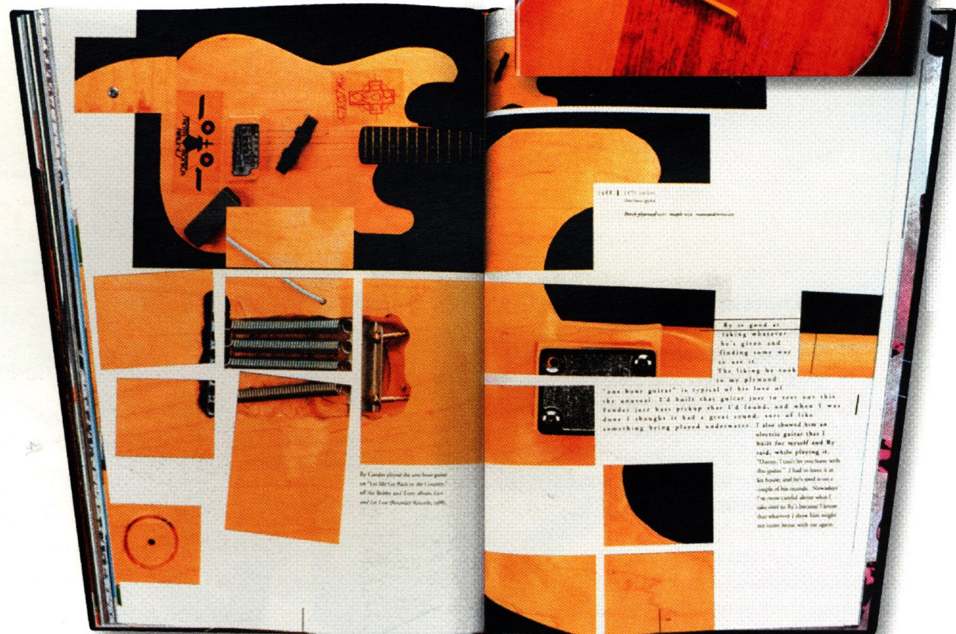


Brochures announcing a series of trade fairs start out small and unfold to poster size. The outside panel of each brochure gives the title and date, then opens to a larger information panel, and finally to a poster. The brochures were part of a complete graphics program. Massimo Vignelli and Dani Piderman, designers; Cosmit, client.

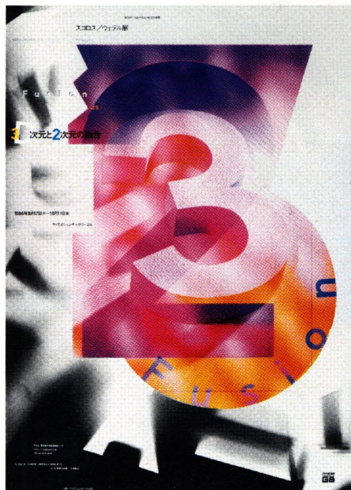
NANCY SKOLOS



Poster for "Documenting Marcel," an exhibit of brochures and other materials collected from all 84 of Marcel Duchamp's shows. Duchamp was obsessed with chess, providing Skolos with a metaphor for "retracing his steps." The chess image is a double exposure made with two cameras. Tom Wedell, photographer; Reinhold Brown Gallery, client.



Although Skolos appears to work extensively in Photoshop, many of her posters, such as this one for an exhibit called "2d–3d Fusion," depend mostly on the original photography for their attention-getting effects. Tom Wedell, photographer.



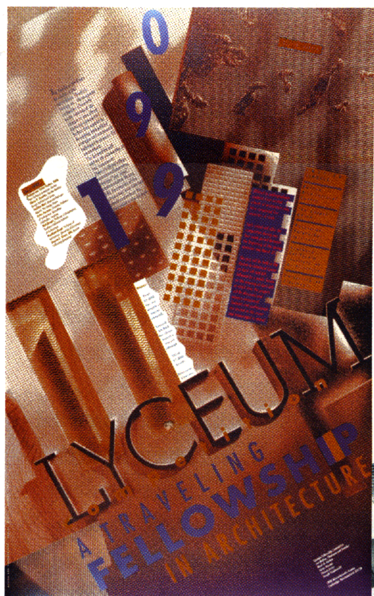
A book on Ferrington guitars gives the appearance of a musical instrument factory: fingerboards, faces, necks, backs, braces, and bridges lying everywhere. For the spread below left, which tells the story of Ry Cooder's "one-hour guitar," Skolos tried to complete the design in the same amount of time. She and her photographer-husband Tom Wedell polished the images on a Kodak Premiere System, years before Photoshop became the standard imaging tool.

BAM! BAM! BAM!—until it becomes obsessive. Suddenly you calm it down with a white page."

Rushworth agrees, but cautions that it takes more than variety to create pacing. "You have to orchestrate it," he says. "You might have a lot of text for four pages, then you hit the reader with a big photo. Or you alternate a mixture of full-bleed images or double-page spreads and lots of text with small pictures. Big against small, black and white against color, a huge letter against a tiny picture. Contrast is what it comes down to. But the key to orchestration is this: the variety, the contrast, must be appropriate to the content."

The orchestration of long or complicated texts is well-trod territory for writers, and we can borrow from their wisdom. "Develop an appropriate structure and keep to it," wrote Will Strunk in *The Elements of Style*. "Express coordinate ideas in similar form. This principle, that of parallel construction, requires that expressions similar in content and function be outwardly similar. The likeness in form enables the reader to recognize more readily the likeness of content and function."

Structure. In graphic design, the structure of a multi-page document often manifests itself as a grid system. The grid has existed for centuries in the design of books, but the conceptual possibilities were dramatized by Le Corbusier as he expanded on the innovations of the *de Stijl* movement. His "Modulor," a system of dividing up space based on the proportions of the human figure, became an orderly method of designing asymmetrical page layouts. In sensitive hands, it produced beautiful books, brochures, and magazines. In the hands of unimaginative designers, it became an excuse for a bureaucratic dullness. For this reason Le Corbusier reserved the right to doubt any solution provided by the Modulor, and to keep his freedom intact. Said Paul Rand of grids: "People mistake a system for something that has to be adhered to. Even Le Corbusier said, 'If you don't want it, to hell with it.'"



For 13 years Skolos has designed the posters for Lyceum, an annual competition for architecture students from invited schools. Each year the students solve a different architectural problem: in 1990 (left), the design of a water treatment plant in Boston harbor; in 1992 (below), a map room to celebrate the 500th anniversary of Columbus's voyage to America.

Swiss designers like Josef Muller-Brockman helped to popularize the grid among a generation of designers in the mid-20th century, demonstrating that grids make it possible to bring all the elements of design—typography, photography, and drawings—into harmony with each other.

The search for harmony in design can be traced back at least as far as the Renaissance, when artists like Leonardo da Vinci drew parallels between art and the mathematics of music: "The painter measures the distance of things as they recede from the eye by degrees, just as the musician measures the intervals of voices heard by the ear." Even earlier, Leone Battista Alberti recommended the use of musical proportions in architecture: "The numbers through which the consensus of voices appeal most agreeably to the ears of men are the very same which also fill men's eyes and soul with marvelous pleasure."

"Design is a lot like music," agrees Vignelli, "in the way you get from one emotion to another." A vocal proponent of grids, Vignelli

maintains that a system of design need not be a straitjacket. "You don't think of the staff when you hear the notes. It's the same with good design. You shouldn't be able to see the grid," he says. "Music, dance, architecture—these parallels have been discussed many times. But it's amazing how useful—and truthful—they can be when they become part of your own language. Scale, tone, depth—these principles are all transferable to graphics."

Nancy Skolos is another one who thinks about design in terms of music. "I want my work to be like a performance in which I play some parts loud and some parts soft. Lately I've been trying to let viewers experience an image more gently, rather than shoving it in their faces." As in music, a finite number of principles can yield an infinite number of forms. Just as *La Traviata* sung by Maria Callas sounds quite different than the same opera sung by Joan Sutherland, a design piece will come out differently in the hands of different designers. It's a question of style.

WHAT IS STYLE? Style is probably one of the most misunderstood concepts in graphic design. The confusion stems from our use of the same word to mean three different things. For example, we might say, "What style is that in?" Or, "That annual report looks really stylish." Or, "Her work has style." But the meanings of the three are quite different.

PERSONAL STYLE IS THE SUM TOTAL OF A DESIGNER'S EXPERIENCE, VALUES, HABITS, AND TASTE—BOTH GOOD AND BAD. IN FACT, A LACK OF ABILITY IN ANY AREA CAN SHAPE A STYLE AS EFFECTIVELY AS AN ABUNDANCE OF IT.

When we ask what style something is, we're referring to its genre, or its type. For example, a design might be classified as Art Deco, Modernist, Postmodernist, New Wave, Retro, Techno, or some other catchword. We're asking about an "ism," a category in which to place it. Inexperienced designers often regard style in this way, as a sort of garnish, a decorative treatment by which a boring dish is made presentable. "Now that I have a concept," they wonder, "what style should I use?"

When we remark that something is stylish, however, we mean that it's fashionable, or "in style." It fits a template of trendiness, or takes part in a cultural conversation. In the past, the style *du jour* was usually the result of technological advances. The style of pop music in the late sixties, for example, was the result of stereo LP records, plus the advent of stereo FM radio stations. FM stations were cheaper to run than their monaural AM siblings, so not only could FM stations broadcast in stereo, they could survive with fewer ads, and indulge in non-hit music. The sound of the Beatles was the sound of this business-technology system pushed to its commercial limits.

Today we're living through the first era with no characteristic artistic style. Our new digital tools allow us to cut and paste from any era, so what's "in" can change from day to day or from culture to culture, often on a whim. With stylish design, attitude takes precedence over content. The drawback is only this: graphic design that relies on stylishness, as opposed to style, has cachet for a certain moment and a certain audience. When the moment has passed and the stylishness has faded, the audience moves on. "Style that shows is only decorating, not style," warns movie director Sidney Lumet. Still, in a world grown thick with media noise, a well-aimed piece of stylishness can cut with surgical precision.

Yet there's a definition of style that goes beyond fashion. And it goes far beyond selecting a treatment to dress up a concept. Let's call it personal style. When we say a designer's work "has style," we mean that the work is an authentic expression of that individual's creative force. Personal style is the sum total of a designer's experience, values, habits, and taste—both good and bad. In fact, a lack of ability in any area can shape a style as effectively as an abundance of it. With some designers, style not only reveals the spirit of the individual, but reveals his or her identity as surely as would a fingerprint.

Who can say with certainty what ignites a particular combination of words and images, causing them to explode in the mind? Who knows why certain notes and rhythms are able to rock the emotions, while others evaporate harmlessly into the air? There's no concrete definition of personal style, yet we all know it when we see it. It has a humanness that separates it from the merely stylish. While we can't achieve personal style overnight, we can set the conditions that will let it emerge.

HOW DOES STYLE DEVELOP? If you remark on a designer's unusual style, the designer will often appear surprised: "But I have no style. I'm just trying to solve communication problems." How refreshing it would be if, just once, a designer would reply instead: "Thanks, I've been consciously trying to make my work look different from yours." The truth is, between style and substance, we would all rather be known for substance—even if we have to lie about it. But no one can have it both ways. Substance is noteworthy for its lack of pretense, whereas style, or rather stylishness, looks contrived right down to its little black roots.

The young designer may ask, "But how can I find my style if I don't try out different looks? What if this *is* my style? What if I'm really *different*?" Then be different, but keep in mind that claiming to be different may be a brave-sounding excuse for avoiding a more difficult sort of work. Mies van der Rohe said, "Being good is more important than being original." Ironically, when we simply try to do a good job, unencumbered by preconceptions of style, the byproduct may well be originality.

For John Rushworth, style comes from being objective rather

AN INVENTORY OF CONTRASTS

The most often-used contrasts are light vs. dark and large vs. small, but others can yield equally dramatic results. Try one or more of the following contrasts on your next job:

LIGHT	DARK
LARGE	SMALL
SHINY	DULL
SHARP	SOFT
STRAIGHT	CURVED
HEAVY	THIN
SMOOTH	ROUGH
GEOMETRIC	FREEFORM
STABLE	UNSTABLE
HORIZONTAL	VERTICAL
SIMPLE	COMPLEX
REFINED	CRUDE
COMFORTING	UNSETTLING
MANMADE	NATURAL
FORMAL	INFORMAL
NEW	OLD

than subjective. "I believe in the classical reductivist process," he says. "I try to understand the reasons why I choose things. My style, whatever it seems to the world at large, results from honesty, because I'm actually trying to do a job, to make my design work harder." The reductivist process, which calls for eliminating all unnecessary elements from a design, can clear the way for personal style to emerge. Here there is no fancy armor, no shield, not even a fig leaf to hide behind. What the audience sees is the pure, naked, unvarnished you.

"Style begins to emerge," explains Massimo Vignelli, "when you try to express yourself clearly. For example, long ago I began hanging type from bars as a device to separate one band of information from another. To me it was like taking notes: you scribble, then you draw a line, scribble some more, then draw another line. The bars perform two services: they convey strength to the page, and they distinguish one item from another. Now the bars are just part of my handwriting. But I don't use devices like these to be stylish, but to communicate a concept."

Another technique Vignelli has found useful is to severely limit the number of colors on the page. "I'll often use only red and black on a white background. White stands for light, black stands for dark, and red stands for blood, for life. From a practical standpoint, the red is simply a way to differentiate itself from black. Why red instead of yellow? Because yellow doesn't read as well. Why red instead of blue or green? Because blue and green have meanings which are too specific." Interestingly, these same limited colors happen to be the ones used by primitive cultures to express color concepts. If a language has only two color words, they are for black and white; if it has three, they are for black, white, and red.

Rushworth believes that the march of personal style was interrupted by the advent of the computer. "Whenever there's a new technology, people stop producing with the hand, the eye, the heart, the soul. Their work begins to look the same, mechanical. Today more designers are trying to look 'bespoke.' They're finding personal ways to express concepts. In the end that's the way it should be—personally resonant solutions that come directly from the projects themselves."

Graphic design, like popular culture, is a perpetually shifting thing. It's like a stream that twists and turns with unpredictable currents. It mingles and separates, feeds on dozens of tributaries, loses old forms and swells with new ones. In graphic design, no technique is taboo, no approach unlawful. But to paraphrase E.B. White, there's simply a better chance of doing well if the designer holds a steady course, enters the stream of design quietly, and doesn't thrash about. "The beginner should approach style," said White, "by turning resolutely away from all devices that are popularly believed to indicate style—all mannerisms, tricks, adornments. The approach to style is by way of plainness, simplicity, orderliness, sincerity."

THE JOY OF MAKING. A love of craft is what unifies both the beginner and the master. Whether your hands never leave the keyboard or never touch it; whether your pages appear as ink and paper or phosphor and glass; the joy of making is the reason we become designers.

Many years ago, when Wassily Kandinsky was a boy of about 13, he bought a box of oil paints with pennies slowly and painfully saved. "To this very day," he later recalled, "I can still see these colors coming out of the tubes. One press of my fingers and jubilantly, festively, or grave and dreamy, or turned thoughtfully within themselves, the colors came forth. Or wild with sportiveness, with a deep sigh of liberation, with the deep tone of sorrow, with splendid strength and fortitude, with yielding softness and resignation, with stubborn self-mastery, with a delicate uncertainty of mood—out they came, these curious, lovely things that are called colors."

Says Nancy Skolos, "To me, there's nothing more fun than the pure problem of structuring a blank rectangle of paper. I once dreamt that everything in my life was going wrong. In my dream, a lot of my relatives were dying—and I don't have that many to begin with. Just as I started to feel sorry for myself, I looked over and saw a sheet of tabloid-size paper sitting in a chair. Its edges were glowing, alive. It began to speak: 'Have you forgotten me?' it said. 'I'm your best friend. I know you think everything in your life is being destroyed, but it's only changing.' I felt better when I woke up. Sometimes, when you work really hard at your craft, you wonder if you're missing out on more important things. My dream reminded me how much I enjoy the work: the simple problem of structuring a blank sheet of paper." ❁