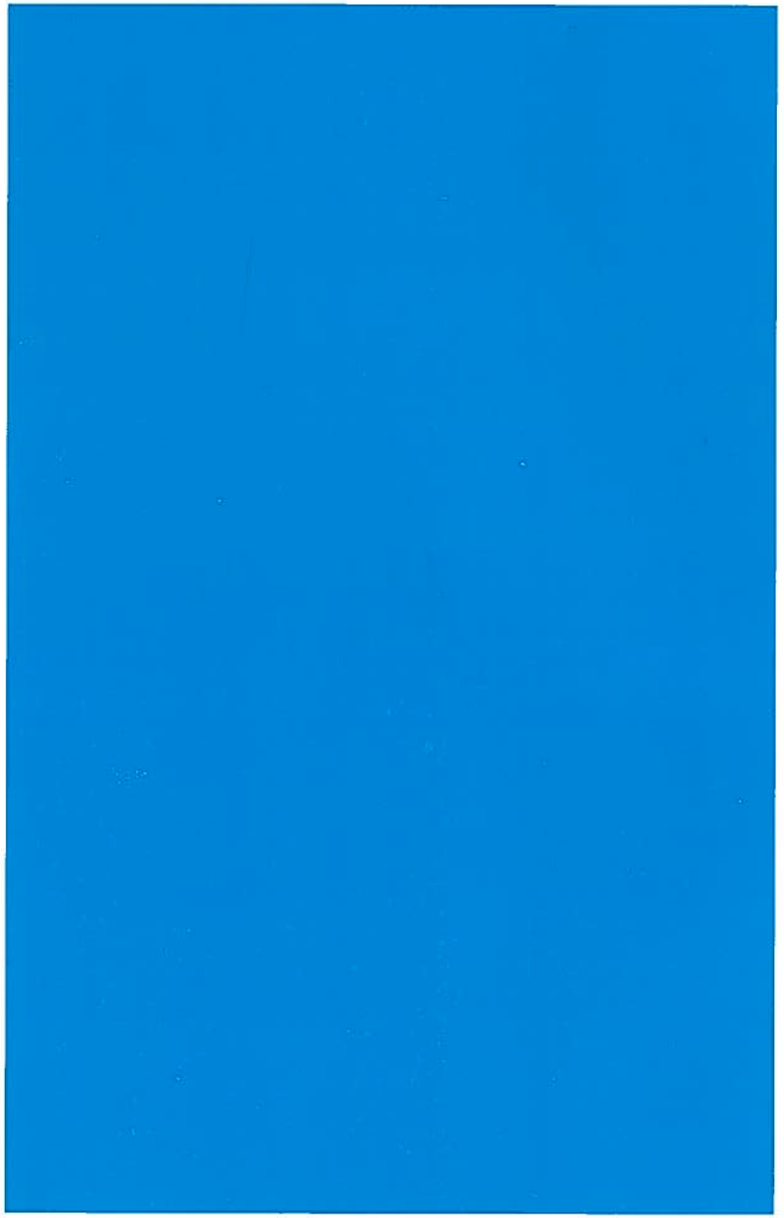

By Design

Why there are no locks
on the bathroom doors
in the Hotel Louis XIV
and other object lessons

SECOND EDITION

Ralph Caplan

FAIRCHILD PUBLICATIONS, INC.
NEW YORK

INTRODUCTION

This is a book about design—for people who couldn't care less: the design process has more to do with your life than you think. It is also a book for people who care too much—who think design is everything: the truth is, designers won't save the world; but the design process can help make it worth saving. Isn't that enough?

A writer I know decided early in his career that "a subject important enough to warrant a large book should be introduced by a small one." The notion pleased him mightily and he has devoted himself ever since to producing small books on important subjects. The large books he shrewdly left to others.

This too is a small book on a subject that deserves a large, comprehensive one. It is not a history of design, although there is some history in it; it is not a design critique, although it tries to explore the subject critically; it is not a defense of professional designers, although it is sympathetic to their frustrations; and it is not a polemic, although it deplores the volume of shoddy and mindless work.

The point of the book is that design, which is now directed largely to superficial ends, is desperately needed in, and applicable to, our most significant human activities—of which it rightly is one. It took me a long time to make the connection, but I have been interested in that aspect of the design process every since I heard the following story.

It happened in the 1940s. The only theatre in the small midwestern town had no balcony, so there was technically no "nigger heaven," although the segregated sections described that

way were common in the area then. Blacks sat in the last four rows. Not that there were enough of them to fill four rows of seats, but the house was never full anyway and the management could afford to sacrifice a few rows. The empty seats acted as a kind of buffer zone, a token separation to suggest the physical removal that a balcony would have accomplished.

Most blacks in the audience came from the college outside of town, whose students protested against the theatre's policy. They wrote letters reminding the manager that segregation in public spaces was illegal in the state and immoral throughout the entire midwest. They argued that African-Americans were citizens and that some were even war veterans.

Protest, like the response to protest, can be spontaneous or designed. Yet even spontaneous demonstrations may be based on previously designed models. This sit-in at a Portsmouth, Virginia lunch counter in the nineteen sixties represented strategies worked out years in advance by civil rights workers.

In 2003 when anti-war protestors in New York were denied permission to march where they intended to, their response was immediate. But it was based on a matrix that had been developed and tested over decades.

None of the letters were answered.

Frustrated, a group of students called upon the manager in person. He was cordial and reasonable. When they called attention to the law, he called attention to local customs. When they talked to him about morality he advised them that morality could not be legislated. In any case, he explained, the issue was not moral but commercial: if black citizens were permitted to sit next to them, white citizens would not buy tickets. Only when one of the students mentioned a boycott or a lawsuit did the manager show anger.

"Look," he said, "personally I don't care who sits where or does what, but my customers do. Don't you threaten me."

They did not threaten him any further. One evening several months later an unusually large collection of students bought tickets in multiples, although the movie showing was hardly a major box office attraction. As soon as the doors opened, students scattered into the theatre in what looked like random clamor but in fact was a well-orchestrated seating plan. The last four rows were packed solidly with whites. The rest sat down in racially mixed combinations—two whites and a black,

two blacks and a white, never two of the same color together—dispersing themselves rapidly all over the theatre until there was no racially pure area except for the all-white four back rows. Other customers left in angry protest, but some did not. The projectionist, who happened to be a college student, started promptly, so the movie was on by the time the manager was aware of the problem.

"You people move!" the manager yelled as he ran into the auditorium.

"Move where?" the audience challenged.

"Down in front," was the indignant shout from the four back rows.

The manager tried for awhile to redistribute the audience, but there was too much confusion, too much noise, too much resistance, and anyway there were no empty seats to work with. For him it must have been like trying to work one of those spatial relationship puzzles that challenge you to slide cubes into vacancies that are not yet there. What he faced was *de facto* integration. The only way to resegregate the theatre was to cancel the show. He decided to write the night off as a moral defeat (but a financial victory, for the house was packed). Student pranks! He shook his head with almost affectionate intolerance. The next day there would be business as usual; he intended to make sure of that.

The next day, however, bundles of mail poured in from all over the country, and not just from students. These were not letters of protest but letters of praise and congratulations for the manager's heroic reversal of an unfair policy. Telegrams from public figures celebrated his civic leadership. He could not have replied to them all, even if he had known how to clear up the misunderstanding. It was all too complicated. The letters turned out to be just a beginning. The campus newspaper and the national wire services ran identical pieces headlined "Theatre Reverses Segregation Policy."

That theatre never did go back to a policy of segregation, and both the local customers and the manager adjusted, in time, to the new policy. The manager never knew what hit him.

What had hit him was design.

Design? What has any of that got to do with design? Isn't design the pattern on a carpet or a dinner plate, the shape of a lamp, the compatibility of a microwave with the kitchen it's used in, the length of a skirt, the appearance of a wheelchair, the styling of cars?

Yes, and the fabric of the carpet, the porosity and temperature resistance of the plate; the lumens of light cast by the lamp, and their intensity; the options the microwave provides; the functioning of the wheelchair; the security of the stroller; and the choices that make the car efficient or inefficient, safe or hazardous, comfortable or uncomfortable.

Design? Isn't design concerned with images—trademarks, corporate logos, facades? Isn't it cosmetic and superficial?

Much of it is. And the end product of design very often is surface treatment. So what? We live in a world we look at, so it might as well look good. Most relationships between person and object begin with appearance. Since objects cannot speak for themselves, they need to be made to look like what they are and what they do. That is even true of corporations, which, although they can speak for themselves, are usually incoherent because, in the words of a corporate designer, they are "both impersonal and multipersonal."

But aren't the products of design hair dryers, computer screens, cereal boxes, curtains, bedspreads, vacuum cleaners, kitchen appliances . . .

Sure. Also chairs and computer programs and office partitions, space capsules and tractors, restaurants and stores and cities, films and books, and government legislation and protest strategies.

For design is a process for making things right, for shaping what people need. We all live with designed objects that we love, hate, use, break, and don't know how to fix (in many cases, are warned by the manufacturer not to even *try* fixing). We need better ones. But we need more than manufactured objects, more than crisp and clever graphics, more than friendly kitchens and friendlier computers. We need . . . well, you know what we need. We can get it by design.

By Design

7

The Design of Possibilities

On Problems

Our choicest plans
        have fallen through,
our airiest castles
        tumbled over,
because of lines
        we neatly drew
and later neatly
        stumbled over

Piet Hein

If nothing is so powerful as an idea whose time has come, nothing is so enervating as an idea that's been sitting around for years like money not earning any interest. That is precisely the situation of "situation design," the concept of moving from the design of *things* to the design of the circumstances in which things are used.

As far as I know, the notion that situations might be designed by professional designers was first mentioned in the early 1960s by Edgar Kaufmann, Jr. The phrase *design of situations* has surfaced periodically ever since, unsupported by much explanation of what it might reasonably mean. Examples that *have* been given are invariably anticlimactic: to describe as situation design the arrangement of a room in which an important meeting is going to take place is not inaccurate, but it hardly suggests a radical shift in design significance.

Yet situation design was being heralded as significant. Designers were at last on to something new and serious, if there were only some way of pinning down what it was. If designers couldn't tell us, maybe fellow travelers could.

Richard Farson is a psychologist with an interest in design, particularly in the paradox that the more design we have, the more problems we face. (*He* thinks this is a paradox; some of us find it perfectly natural.) In a 1966 paper dealing with social implications of the human potential movement, Farson argued that professional designers were needed in the design of human situations. "What will be the situational designs that will help to make us really healthy?" he asked rhetorically. No one knew. In the meantime, though, Farson observed, environmental design was already controlling situations in ways we had come to take for granted. "Nobody smokes in church," he reported, with an enthusiasm ordinarily reserved for the discovery of new planets.

That revelation might seem dazzlingly irrelevant to anyone

but a priest or a firefighter, but Farson had a point: the church designs the behavior of the churchgoer. The church also designs the behavior of the minister, and astute clerics have always understood the importance of church design. Traditionally they have understood it much better than playwrights have understood the importance of theatre design. This has changed in our time, and more flexibility in theatre design on the one hand and the reemergence of street theatre on the other have combined to create object lessons, not always exemplary ones, in situation design. Church architecture has undergone changes equally dramatic, adapting to congregations, many of whose members do not leave their cars or their living rooms.

The Ford Foundation once sponsored a program to bring designers together with playwrights and other theatre people to talk about concepts for the "ideal theatre." One of the designers, architect Pietro Belluschi, concluded that "theatre houses impose severe physical and artistic limitations on all types of performing arts by the inadequacy of their design."

The Ford project consisted of eight design concepts for the "ideal theatre." The difficulty with such a project is inherent in the statement of it, for there is no ideal theatre. More important, there is no prospect of designing one, except "conceptually," for such a project is free of the constraints that make design possible. Some top-flight architects and theatre designers worked on the Ford venture, and presented their concepts. The most interesting design commentary, however, came from playwright Arthur Miller, who said, "I have no doubt that plays are not being written just because of the limitations of New York's theatres. . . . You can't write for those 'shoeboxes' with the same ideas, with the same emotional scope, as you would for a [more adaptable] theatre. . . . You can't hope to make one theatre which is absolutely perfect for all kinds of plays."

Similarly you can't design one type of environment for all situations, which is why situation design has to be constantly

called into play. When churches prohibited smoking, restaurants supported it by selling cigarettes and providing ashtrays. Now that smoking is banned in many restaurants, and in sections of others, smokers must exercise their habit outside, where they are exposed to the elements, and where they congregate, make noise, leave litter. Their removal also creates new problems in situation design inside: for example, if they are drinkers, not diners, does the bartender save their seats?

Environmental design can direct human behavior, but it isn't easy. At the United States Conference on Human Settlements, held in the summer of 1976, the Greek and Iranian delegations proposed resolutions on design, urging that housing be sensitive to "human scale" and to regional lifestyles and building traditions. The Greeks went further, calling for "the creation of chances for human encounters and the elimination of urban concepts promoting human isolation."

It seems unlikely that such changes can be effected by, or even affected by, resolutions and declarations and conferences. Sure, some urban concepts promote human isolation, but not because an international forum has failed to warn planners to get with it.

The Canadian architect Irving Grossman told of designing a housing project for the elderly. Compassionate and conscientious, Grossman was determined to give every resident a view of the green park enclosed by the project. And he managed to do that with most apartments. At last, though, he admitted that, to stay within the budget, some apartments—as few as possible—were going to have to look directly out on the superhighway that ran by the complex. Defeated, Grossman shared his despair with the contractor, who said, "Don't worry about it. Those apartments will be the first ones to go."

When they began to rent the space, the contractor turned out to be right, for he knew what Grossman hadn't known: the elderly tenants felt isolated enough already; they didn't want a peaceful green nothing to look out on (with other elderly people sitting in it). They wanted to be, at least visually, where the action was.

Designers, who have always welcomed support from any quarter, were pleased to be perceived as moving from the design of things to the design of situations, whatever it meant. By the 1960s, designers generally had become as bored with products as educators had with teaching (a survey of products from the period will show how bored they were) and were beginning to describe themselves as planners, consulting generalists, conceptualizers—always in language that kept its distance from the world of objects. "The product is dead," a Chicago designer told me as we sat in his Alfa Romeo. He intended to devote the rest of his life to pure process. "I have styled my last hoo-ha," said another. Others, acknowledging that they could not so easily break free from the bondage of goods, began speaking of "total design," implying that the object was at least kept in its place—a place usually subordinate to marketing.

Situation design, then, was an appealing concept rhetorically. It was dignified, sounded significant, and required no special professional training, but only the amorphous, comprehensive array of talents that all designers were presumed to have. Yet if you asked people, "Designed any good situations lately?" you waited a long time for an answer.

In point of fact designers do not often design situations professionally. Then who *does*? Novelists do. Comedians do. Playwrights and directors, marriage brokers, football and basketball coaches, group therapists, lawyers, politicians, political activists . . . Situations are being designed all the time, but since they are not designed by professional *designers,* no design credit attaches to them. So there really is nothing new about the design of situations as such; what is new is the idea of approaching them with professional design skills.

Some situations are important and complex enough to

demand whatever insight and expertness we can find. The response to an unexplained plane crash used to be an investigation of what was wrong with the plane; thus we discovered metal fatigue. Aircraft design defects and excessive material stress are still possibilities, but today we mean something quite different by "What went wrong?" We are beginning to look at the design of the situation—communications practices, certification procedures for aircraft, traffic control procedures, physical and psychological profiles of pilots, landing strip configurations, lighting systems, etc.

Actually we refer continually to situation design in our everyday lives, but think of it as just a figure of speech. Following Egyptian President Anwar Sadat's assassination in 1981, the Israeli ambassador said, of Sadat and Israeli Prime Minister Menachim Begin, "These two major architects of the peace process intended to create a situation that would outlast them." This language surprises nobody; nevertheless, we do not really think of this as design. I turn on the television set Sunday morning and find myself watching a religious drama broadcast by the Paulist Fathers: a probation officer is trying to console a depressed prostitute. "You build life like a building," he tells her, "day by day." The metaphor is sound enough, but it is more than a metaphor. That *is* how you build your life; and lives, like buildings, have to be designed or they won't stand up.

When actor and director Robert Redford set up the interdisciplinary Sundance Film Institute on his ranch in Utah, he called on professional designers and planners to help, for his aim was to design a situation in which actors, writers, and directors could develop sensitivity to each other's crafts.

In recent years, for reasons that included a faltering economy, corporate scandals, mergers and takeovers, dozens of corporations have announced in the business press that they were redesigning companies, work processes, health and pension plans. Their spokesmen were not speaking figuratively. Redesign is precisely what they did.

The traditional design of situations lets us examine some aspects of design process in the absence of design agonies. Take comedy for example. When I was a child we had a device in our living room that brought in the world's best entertainers for nothing but the cost of exposure to a few commercials. It was called radio. I used to listen to Fred Allen, Jack Benny, Doc Rockwell, Fibber McGee and Molly without realizing what made them so unfailingly interesting week after week, until one day my father said, "Did you ever notice that the best comedians never tell jokes? They create funny situations."

My father didn't know he had uncovered a design principle, but he had: telling jokes is the styling of comedy—relatively easy to master, accessible to the less talented, likely to follow trends and fads. Polish jokes, moron jokes, elephant jokes, lightbulb jokes—these were the equivalent of tail fins and safari suits and corporate logos full of arrows. The one-liner is always sharply limited in range, no matter how marvelous the execution. There is a sense in which Bob Hope was the Raymond Loewy of comedy. Hope was funny, but his comedy did not enhance our understanding; there was nothing for us to *do* about Bob Hope. In one-liner comedy the consumer is passive and uninvolved. But Charlie Chaplin showed us something of what it means to be a person.

Although the design of television comedy today is geared more to the competition for ratings than to anything else, the best of it, from the original Saturday Night Live to Seinfeld, is still faithful to the principle. In the hands of a designing comedian, if a joke is used it is generally recast as a situation. Comics don't say, "I am reminded of a story . . ." or "Did you hear the one about? . . ." Rotarians do. Comics say, "A funny thing happened to me on the way. . . ."

Nor do true comics say, "But seriously folks." That's another clue to styling: the shift in character, the abrupt break when the joking stops and the pitch for the March of Dimes begins. True comedy never has to step aside for the serious. It *is* serious. That's why it's so funny. Design can be funny too—deliberately, as in the Olivetti typewriter case that becomes a wastebasket, or unintentionally, as in the "Transition" caskets made by the Aurora Casket Company with snap-in decorative panels to give the user a choice of pastels or in the streamlining of a pencil sharpener or a tea kettle, although neither benefits from lowered wind resistance. The Bauhaus didn't take humor into account and the postmodernists threatened to take nothing else into account. It is fallacious to think that everything has to be either funny *or* serious.

Every basic change in structure requires a corresponding change in behavior. That makes situation design necessary. What makes situation design possible is that the structural problems of any given client are not as special as the client thinks they are.

This is illustrated dramatically in every design project that has to do with communications. If you are designing an exhibition or a film, or any piece of corporate literature more intellectually complex than a sales brochure, people in the company keep saying, "I don't envy you." What they mean is that the particular problems of their own industry or company are so difficult and special that no one outside the organization could possibly understand them. If you do understand them, or appear to, they are amazed. Of course *you* know that your grasp of their problems is based not on your astuteness but on your experience with other problems very much like theirs. If you tell them this, they are either incredulous or hurt.

It is the commonality of human problems that makes feasible the practice of fortune telling, medicine, and every kind of outside consulting, including design. An experience of George

Bernard Shaw's illustrates this:

> The first time I had my hands examined by a palmist he amazed me by telling me the history of my life, or as much of it as he had time for. Apparently he knew about things I had never told to anyone. A few days later I mentioned in conversation with a friend . . . that I had been dabbling in palmistry. He immediately put out his hand and challenged me to tell him anything in his life that I didn't know from my acquaintance with him. I told him about himself exactly what the palmist had told me about myself.
>
> He too was amazed, just as I had been. We had believed our experiences to be unique, whereas they were ninety-nine-point-nine percent the same; and of the point-one percent the palmist had said nothing.

To an anatomist, Shaw concluded, monkeys are all skeletally alike, with the exception of a bone or two. This tends to be true not only of monkeys and of people, but of organizations, both commercial and nonprofit. (Of course, much of the excitement in design comes from dealing with the unique bone.)

No matter how much they are alike, however, situations are difficult to design. A situation is thought to be static, something you're caught in—a pickle, a jam, a state of affairs. But a situation is static only for descriptive purposes, just as posture seems to describe a fixed position but is rarely encountered in the absence of movement. (An exception is the military posture of standing-at-attention, which is both barbaric and physically harmful.) A football coach may describe a situation symbolically on a blackboard, but usually he is expressing motion as well as position, so he relates the sketches to the video of last week's game. Situations are dynamic, like the design process itself, in which fixed focus can be crippling. I

knew a very successful and very good industrial designer who became obsessed with the problem of writer's cramp, which he was convinced was caused by the improper design of pens and pencils. A serious student of human factors, he spent years studying the muscles of the hand to determine the basis for a new kind of writing device that would permit long periods of writing without strain. Although hardly of epic scale, the problem was serious enough, and there was no disputing the designer's diligence and responsibility. If ever there was a right way to go about designing a product, this surely was it.

But when the Japanese introduced the felt-tip pen, soon followed by American imitations that were superior to the original, the problem shifted radically. There is now so little friction in writing that writer's cramp has been virtually eliminated, even though our pens and pencils may be as hard to grip as ever. The problem was soon replaced by mouse cramp, with the attendant carpal tunnel syndrome.

Perhaps the most valid model for the designer of situations is the scientist, because of the open-endedness of scientific experiments. The experiment itself is designed, but the working rules require that the designer not manipulate the process. The scientist sets up a situation on the basis of reasonable prediction, but in fact he does not know what will happen. Neither does the designer.

The assumption that designers *control* situations leads to self-delusion and also to the delusion of clients. Manhattan's office building plazas—populated by bums, prostitutes, and ambulatory psychotics—are built from architects' models made credible with the aid of nicely dressed figures sitting still, admiring the fountain and generally making the scale of the building look tolerable. The trouble is that people don't behave like the cardboard people in architects' models, because what the cardboard people don't do is behave. Where real people choose to sit, stand, and congregate is not always anticipated, or even considered, in the

design and location of the benches and plazas provided. The point is vividly made in a series of film studies of behavior in public places made in the 1970s by William Hyde Whyte.

Do we need better instruments for modeling behavior? Perhaps. But the problems are social, not technical, and we need social designs to address them effectively. The most elegant design solution of the 1950s was not the molded plywood chair or the Olivetti Lettera 22 or the chapel at Ronchamp. It was the sit-in. Achieved with a stunning economy of means, and a complete understanding of the function intended and the resources available, it is a form beautifully suited to its urgent task. The form did not pop into existence with someone's spontaneous refusal to sit in the back of the bus. It was the conscious creation of strategists like Bayard Rustin and, years later, Martin Luther King, Jr., who adapted Gandhian protest techniques to Western problems.

It was also ideally suited to the college campus. A student body is, among other things, a collection of young people artificially segregated and confined. In the distant past the animal spirit not taken care of by sex and spectator sports erupted in the form of riots, panty raids, goldfish eating, and pranks. For generations faculty and staff nervously endured student pranks, hoping it wouldn't be *their* car that was painted with red stripes and moved to a no-parking zone, and devoutly wishing all that energy could be put to constructive use.

Suddenly it was. The demonstrations and confrontations that came to a head in the late 1960s were student pranks raised knowingly to the level of social responsibility. However cruel, the practical joke has always been a way of designing situations. And what defeated political adversaries was the same undergraduate design ingenuity that had defeated deans and dormitory house mothers and building custodians.

So the theatre manager described in the Introduction to this book was perfectly correct in accusing the demonstrators of

carrying out a prank. In planning the sit-in, the students were advised and aided by experienced, dedicated professionals who were instantly dismissed as "outside agitators." (Not always unfairly; that is what designers sometimes are.) They had raised such basic design questions as: What do you want to accomplish? What are the materials you have to work with? Who are the people involved? What do they need and want? If this is a problem, what might a solution look like? What forms might it take? What form can you give it?

The forms they designed appropriately addressed the needs of all concerned. Blacks needed equal access to the theatre; students needed to experience their rights and powers; the town needed to confront the issue; the theatre manager needed an out—a dramatic demonstration that his hands were tied and thus an excuse for complying with the law. For, as it happened, he *was* personally indifferent to who sat where.

Physical protest had been tried before at that theatre and at restaurants throughout the area, but the simple refusal to move had accomplished nothing more than temporary disruption. There had to be a *strategic* refusal to move, with the odds arranged in favor of the designers. (As with most design, there was some risk: people could have been injured or arrested. In other civil disobedience designs, arrest is itself a strategic device. "Fill the jails," admonished that master architect Gandhi, and the tactic has been used across the world ever since.) Buying the tickets in advance assured surprise and control. The carefully planned takeover of the theatre, with each student knowing where to go and with whom, consolidated the advantage. And the press release and letters, prepared weeks in advance, locked the manager into a course of action. By removing the affair from the sphere of negotiations, the designers had made him an offer he actually couldn't refuse, for there was no place to lodge a refusal.

Some situations can be redesigned only through objects and vice versa. Time was when men wore jackets in hot weather not because they were embarrassed to be found in shirtsleeves, but because jacket pockets were the repository of such appurtenances as eyeglasses, comb, keys, checkbook, appointment book, pens, address book, business cards, and photographs of children.

Clearly what every man needed was a purse, just as every woman needed interior jacket pockets. Both were forbidden fashions. The solution to male purse envy came initially not from designers (who are often the last to perceive that there is a problem) but from photographers, who discovered that a camera case would hold, in addition to film and extra lenses, such items as dental floss and what airlines called "smoking materials." Soon camera buffs began loading their cases with personal property not manufactured or even dreamed of by Kodak. Many men took up photography solely in order to have a place to carry small purchases without having to overdress. Finally someone discovered that he could buy a camera

case without buying an instrument to carry in it. As long as nobody looked inside—and nobody ever did—the user could carry accessories on his shoulder, and ride with them in his lap, without having his masculinity questioned.

In the late 1960s Bill Blass designed for the Wings Company a canvas "shoulder attaché." It held legal pads, manila folders, and books and had an outside pocket for a newspaper or magazine. The first men to use these were, predictably, greeted with sarcasm ("Don't forget your purse, Mike"), followed by a guarded acceptance ("I can see where that might come in handy at times"). Final acceptance came when totebag-bearing men were stopped in the streets and asked bluntly where to buy them and for how much.

The Blass bag was sold mostly in department stores and cost around $30. Totebags today are sold almost anywhere except banks (where they are given away) and they cost from $30 to more than $1,000. Some of the best of them are made by manufacturers that previously made bags for messengers and masons. You can get them in microfibre, several grades of leather, canvas, fur, and even wood. The variety is dazzling, although I have seen none that surpasses in utility the Blass original, which unfortunately has been unavailable for years.

Once a verb, *tote* has gone on to become a noun, meaning a bag with which toting is done. Totebags cut across all levels of American society. Clerks carry their lunch in them. The dapper and macho president of a West Coast advertising agency for years carried the firm's most important papers to and from meetings in a Danish school bag which he replaced every few years in New York at a shop for children. The chairman of the board of a large furniture company in the Midwest appeared at his board of directors meetings carrying a khaki totebag from Eddie Bauer, a sporting goods store. Game bags sold by Abercrombie & Fitch and L.L.Bean have been pressed into executive service. An artist in New York never leaves his loft with-

Although schoolchildren have fewer books to read, they have more books, or at least more stuff, to carry.

out his musette, a piece of army gear that turns out to be a totebag in a plain olive drab wrapper. Hunting World, a New York safari boutique, for years advertised a jungle-derived totebag for people who have no intention of going on safari or even reading Hemingway.

Has the proliferation of totebags demolished the men's jacket industry? As a matter of fact, it has not. For, as the totebag phenomenon has grown, so has the paraphernalia men are obliged to carry. Standard equipment has been enlarged to include pocket calculators, laptops, Palm Pilots, and the latest variations of Swiss Army knives. So, even though fewer business and social situations require jackets, men still need pockets for such appurtenances as eyeglasses, comb, keys, checkbook, appointment book, pens, address book, business cards, and photographs of children. And children, with multiplying possessions of their own, need backpacks.

Take mass transit for example. Probably no single system had as much going for it, in a design, engineering, and economic sense, as San Francisco's BART, which had behind it the technology of the aerospace industry, a $790 million bond issue, a platoon of reputable designers, and a cluster of worthwhile motives. Its backers were motivated to solve the environmental crises, prevent the "Los Angelezation" of San Francisco, make job locations accessible to carless minority members, and serve as a model of how military technology could be pressed into humane service.

What went wrong? Everything. But, apart from the technical problems that kept the trains from running or from running on time, BART seemed in its first years to have been superbly designed to serve the needs of some people who live in some other place in some other way.

People who *do* live in some other place in some other way can be found in New York City, waiting for buses. When, after a long wait, one finally comes, it is (1) jammed, and (2) followed closely by three empty buses. No other bus will come until the next pack of four.

A city bus driver, writing in *The New York Times* under an assumed name, explains that these situations are just as frustrating for drivers as for passengers. If he were driving bus number three, he points out, "the best step for me to take from the point of view of service would be simply to pull out of line, run down ten or fifteen blocks and begin picking up passengers there." Why doesn't he do it? Because Transit Authority rules do not permit him to pass waiting passengers at a bus stop or to run ahead of schedule.

The design of the buses themselves is notoriously inadequate, which is blamed in part on inadequate budgets

(although designers must have something to do with it). But the system is as badly designed as the vehicles, and there is no budgetary reason for that.

Transportation is loaded with difficult situations, most of them having to do with human contact. Sealed off from other drivers, as other drivers are from them, drivers on a freeway signal by waving, honking, displaying bumper stickers, and gesturing to indicate road rage. The driving itself—the quality of movement from lane to lane—is as much message as medium.

But *public* transportation forces an uneasy human contact that the user has to adjust to with very little help from designers. The experience of riding in a subway or elevator calls to mind Bertrand Russell's remark that much of modern anxiety stems from the time we spend in unnatural proximity to strangers without the preliminary sniffing that is instinctive in animals, including us.

Codes appear quickly in the absence of a workable design. The New York subway code is simple in theory but very difficult for strangers to learn. It says simply that no passenger may intentionally catch the eye of another passenger; if it happens inadvertently the offender must turn his gaze away instantly, careful not to let it land on still another passenger. What makes this difficult is that most subway cars are designed with the seats facing each other. So passengers have developed various strategies for dealing with the situation. Hiding behind a newspaper works well if there is enough room to open the paper. (Skinny tabloids are best.) Some passengers close their eyes to feign sleep, but the Transit Authority discourages this as an invitation to muggings. In the service of advertisers, designers have directed passenger's eyes upward to panels displaying advertisements for beer, hemorrhoid medications, and bunion removal, and public service messages about safe subway behavior and safe sex.

Situation designed by the Metropolitan Transit Authority in New York.

The problem is even more intense in elevators. An elevator ride is an exercise in keeping one's distance without having any distance to keep it in. Here, passengers are permitted, almost required, to look at each other upon entering; but only for an instant. The elevator journey proceeds on the premise that passengers will all face the same way, like lemmings or television viewers. When that contract is violated, the effect is unnerving. If you want to see grown men cry, try facing the rear of an elevator and looking into the eyes of your co-travelers. Few people do that, but it has become common for riders to assume ambivalent positions along the side walls, facing right or left, exposing their profiles and the nerves of other passengers.

Still the question persists: Why should people who happen to be good at sketching, handling materials, creating physical forms, anticipating and exploiting new markets and new technologies, have any particular contribution to make to human situations? I suspect it is chiefly because design is a problem-solving process that begins with a human being.

That human being is not the constituent of the politician, or the consumer aimed at by marketing people, or the subject studied by social scientists, or the enemy of the general, or the character of the playwright, or the plaintiff or defendant of the lawyer, or the football coach's opposing coach. For a designer, the human being is himself or herself! The assertion is heretical, for it suggests "self-expression," which is contemptuously

dismissed as irresponsible. The truth, however, is more comlpex, for in design, the awareness of self is the beginning of responsibility.

But only the beginning. The next step is to take into account the needs of other people. For this purpose, the kind of research that designers can do, and have always done, has come back into fashion. The 1973 Nobel Prize in Medicine was awarded to Lorenz, Tinbergen, and Von Frisch, all of whom take an ethological approach to medicine. That is, they watch how an organism behaves in relation to its environment. Designers have always done this, if only because they didn't know how to do anything else. The kind of research that consists of looking around and putting yourself in someone else's shoes is not as superficial as it may sound. Putting yourself in someone else's shoes implies knowing a lot about yourself (and a fair amount about shoes too, for that matter).

The design of possibilities is initiatory rather than reactionary, a departure from the mode of operation in which the client shapes the problem because it is his problem. There are no existing clients for possibilities, at least no clients who already know they want them. Designers normally pretend to work like private eyes, waiting for the client to stagger through the door with a new case. It is romantic to view the consultant designer as a kind of Sleeping Beauty, doomed to inactivity until some corporate Prince Charming arrives with a wake-up kiss; but design isn't like that anymore and never was. The beauty of a design solution can never lie in wait; it requires active involvement all the way: initiating design and taking responsibility for it in all the messy situations of distribution and use that can never be recorded in the visual presentations that designers show to clients and to each other.

Surely it is necessary to redesign the situation of design itself. In the meantime there is no reason designers cannot initiate projects of their own and find sponsorship for them if

necessary. A number of designers already do this. Benjamin Thompson, the architect responsible for snatching Boston's Quincy Market from the jaws first of defeat, then of literal restoration by the book, did not act as his own developer, but he did the next best thing. He found the developer, James Rouse. The project was architectural, but the design depends more on buying, selling, meeting, eating, playing and listening to music than on a series of harmonious facades.

Throughout this volume I have claimed that design solves problems. It often does. But when we call designers problem solvers, the connotations are very grand. An infusion of humility is useful. It helps if we remember that, to a person hungry for scrambled eggs, a short-order cook is a problem solver. It also helps to remember philosopher Abraham Kaplan's observation that we talk about problems when we mean predicaments or dilemmas, which cannot be solved and must be faced, lived through, or otherwise dealt with. One reason for believing that designers could professionally address social issues is that their primary competence lies not in the technicalities of a craft but in the mastery of a process that can help us solve problems or deal with predicaments.

That process consists generally of seizing on a purpose; defining the situation or problem; identifying constraints and organizing materials, people, and events in a way that can be modeled and visualized in advance. More important than the sequence of steps, however, is the rooting of the process in needs and aspirations that are at once personal and public. Some of those needs and aspirations are downright prosaic, as are some of the designs that help satisfy them. But we ought not to disparage the means just because it is useful in achieving ends that are not lofty. The same process that shapes our useful objects—cameras, buildings, furniture, computers, bicycles, knives, and forks—can be a tool for shaping how we live with them and with each other.