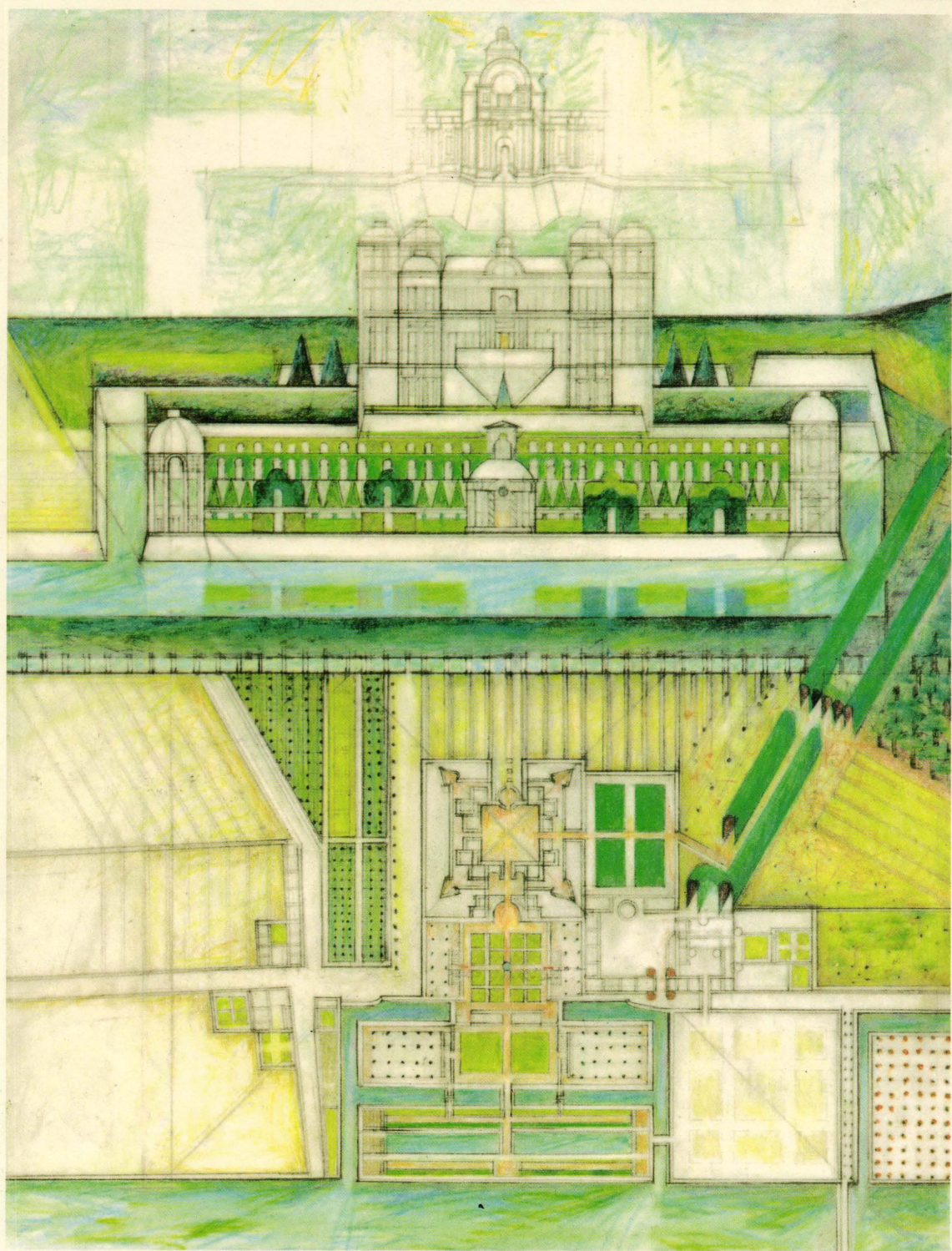


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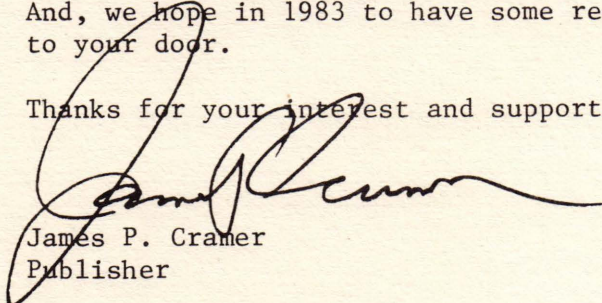
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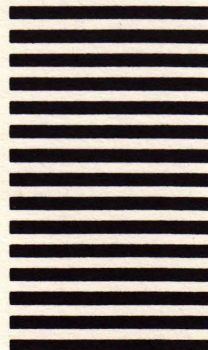
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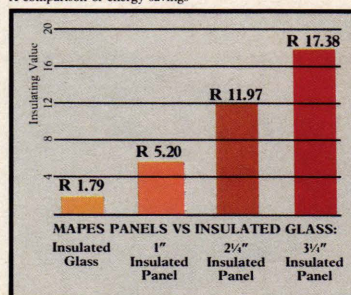


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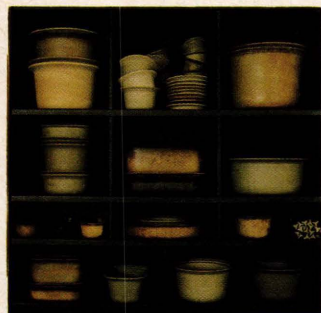
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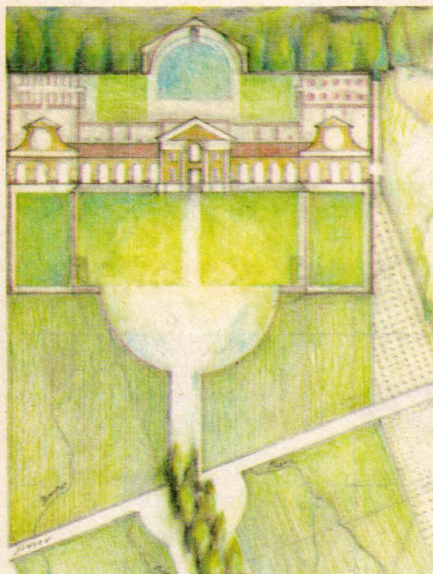
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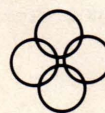
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On the cover: Drawing of 16th century chateau, Verneuil, from Barbara Stauffacher Solomon's Walker Art Center show.



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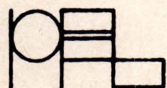
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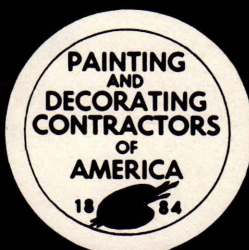
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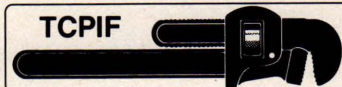


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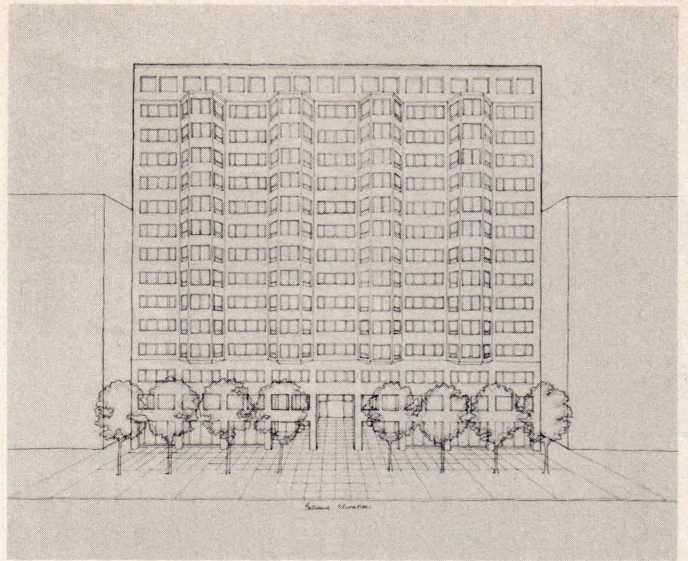


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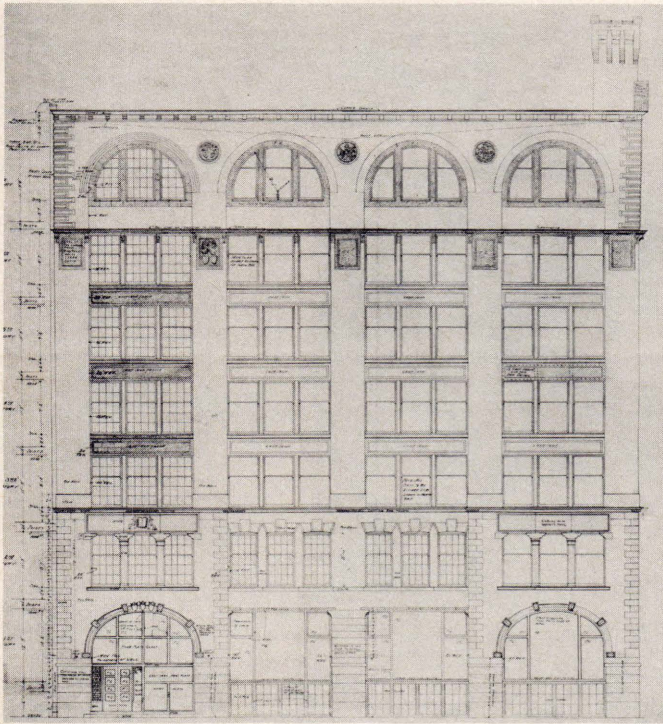
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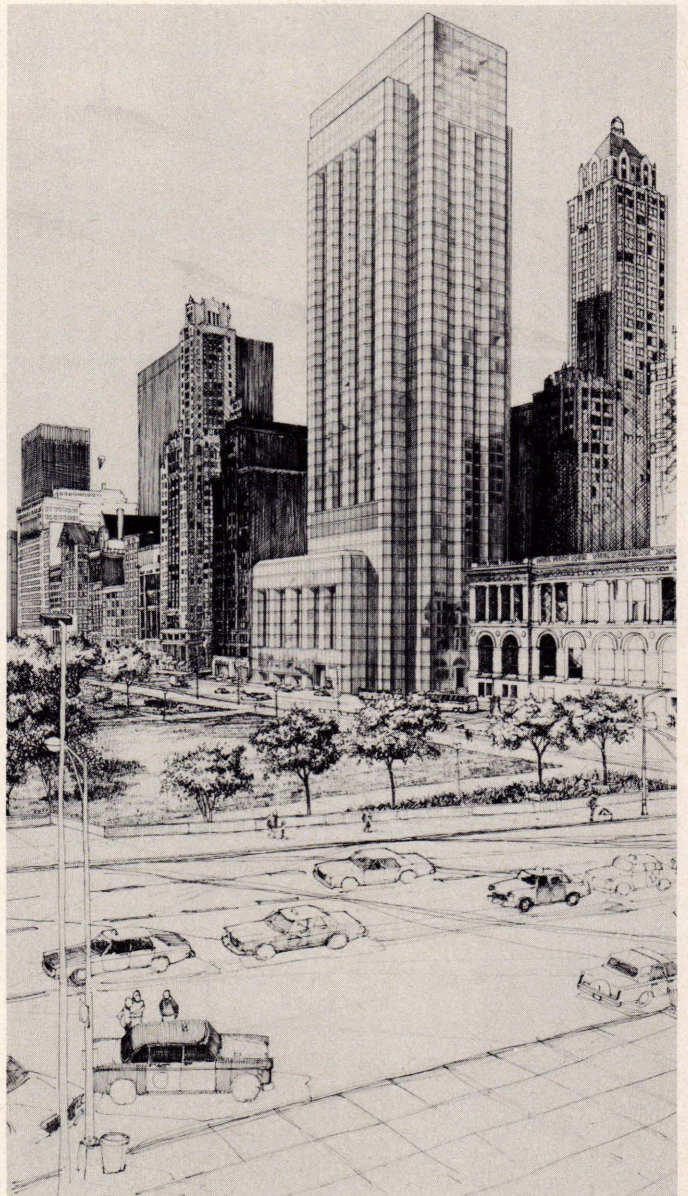
Here is a sampling from a new collection of superb drawings executed by Chicago architects over the past 120 years. Titled *Chicago Architects Design*, this book is a publishing event of major importance to architects and buffs alike. (For an assessment by archivist Alan Lathrop, see page 11.)



James Nagle, architect
Office building, Chicago (1982)



Treat and Shaw, architects
Lakeside Press Building, Chicago (1896)



Dirk Lohan, architect
Proposed office building, Chicago (1981)

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John Zukowsky, Pauline Saliga, and Rebecca Rubin. Chicago Architects Design: A Century of Architectural Drawings from the Art Institute of Chicago. New York: The Art Institute of Chicago and Rizzoli International Publications, Inc., 1982. 174 pp. \$25.00 paper

Reviewed by Alan Lathrop

Chicago Architects Design is a catalogue of three exhibitions held at the Art Institute of Chicago in 1979, 1981, and 1982. These exhibitions concentrated exclusively on drawings by Chicago architects held by the Institute's Burnham Library, which collects renderings and presentation drawings for their artistic and architectural merit. The book's subtitle, "A Century of Architectural Drawings from the Art Institute of Chicago," is a bit misleading for, in actuality, the drawings depicted span more than 120 years.

Chicago Architects Design is a handsome publication. It contains 138 black and white illustrations and nine color illustrations of architectural drawings. All of the drawings are beautifully reproduced, typical of the fine quality of many Rizzoli publications. Each drawing is accompanied by a brief biography of the architect and, on occasion, some background commentary on the project depicted. This should be especially interesting to Minnesota readers, for several of the architects designed buildings in this area (none of which are shown).

There is a somewhat mystifying arrangement to the drawings in the book: it seems to follow a very rough chronological progression by birthdate of each architect, although the order is by no means strict. Happily, an alphabetical index is included by architects' last names, so specific individuals can be located quickly.

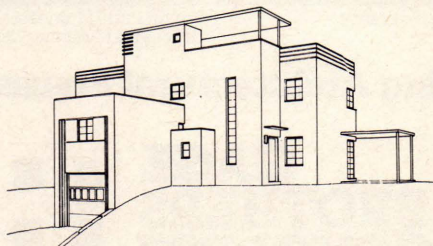
The great surprise and delight in *Chicago Architects Design* lie in the astonishing diversity and overall excellent quality of the contemporary architects' drawings. Lest anyone think that today's architects may lack entirely the ability to draw, one need only leaf through the last 50 illustrations in the book, all of which are post-1960. Although stylistically they are as far removed from those of a century ago as they are in time, their quality is top-notch. It is perhaps most interesting to note that some computer-generated "renderings" are among these, displaying a quality equal to that of anything that might have been painstakingly executed in ink or watercolor. These probably form the most noteworthy body of material in the book.

In addition, the book contains three informative, illustrated essays written

for general readers. The first, "The History of Architectural Drawings at the Art Institute of Chicago," by John Zukowsky, the archivist in charge of the Department of Architecture, traces the history of the Burnham Library's efforts to collect architectural drawings. The second is entitled "The Types and Styles of Architectural Drawings," by Pauline Saliga, and sketches in layman's terms how a building is designed, identifying the various kinds of documents that are produced in each stage of the design process.

Architects probably will not learn a great deal from this essay, but it should provide the general reader a glimpse into the working world, past and present, of the architect's office. The third essay, "The Conservation of Architectural Drawings: An Introduction," by Rebecca Rubin, is written from the viewpoint of a professional conservator. It briefly notes the problems inherent in any attempt to repair and restore damaged drawings in a variety of media and concludes with a few recommendations for preventing deterioration of drawings in long-term storage. This is perhaps the only essay of the group specifically aimed at architects and would have benefited from a bibliography. Despite the author's claim that there are few, if any, sources available that may be consulted, there are, on the contrary, some valuable, non-technical ones, including this reviewer's own summary of the provenance and preservation of architectural records which appeared in *The American Archivist*, Summer 1980.

Readers of *AM* can appreciate this book on several levels. It presents a panoramic study in artistic styles and techniques since the Civil War, which certainly ought to be of interest to artists and architects. It also can serve as a sourcebook to the architectural drawings collection of the Burnham Library. Researchers will undoubtedly benefit from that knowledge as well as the biographical material presented on each architect. Finally, it provides a well-documented look at the changing tastes in American midwestern architecture and how architects responded to shifting trends.



Henry Dubin, architect
Battledeck House
Highland Park, Ill. (1929-30)

Notes on architectural collecting

For the past several years, there has been a growing awareness among archivists, librarians, and museum curators of the significance of architectural records. This interest has arisen as more and more institutions have recognized that they were overlooking a vital collecting area and have moved to fill the gap by setting up architectural records programs. In part, such interest has been prompted by increasing demands from historians and restorationists for original records. The result has been increasing numbers of repositories concerned with collecting and preserving such records as resource material for research and for their artistic value, and more public exhibitions of architects' drawings. Two incidental corollaries have been the sudden new surges of interest among architects in preserving their drawings and among private collectors in acquiring them as art objects.

The earliest institutional collectors of architectural records in the United States were libraries, most frequently those attached to either museums or prestigious schools of architecture. Two of these were the Avery Architectural Library at Columbia University and the Burnham Library of Architecture at the Art Institute of Chicago. The latter opened in 1919 and acquired its first item, a scrapbook kept by Peter Wight, that same year. In 1977, the library established a full-fledged archival program headed by an architectural archivist and charged with the task of acquiring and preserving drawings of Chicago architects.

Acting in cooperation with the recently-created Chicago Architectural Archive at the Chicago Historical Society, the Department of Architecture in the Burnham Library is carrying out a systematic acquisitions program for perhaps the first time in its existence. The Burnham Library is mainly interested in renderings and presentation drawings, which are collected for their artistic value and merit and for the architectural ideas represented in a project. Left to the Chicago Architectural Archive is the responsibility for acquiring all other types of records—working drawings, correspondence, contract files, and specifications—which are usually the most commonly demanded by researchers since they carry most of the information about how a particular building was designed and constructed.

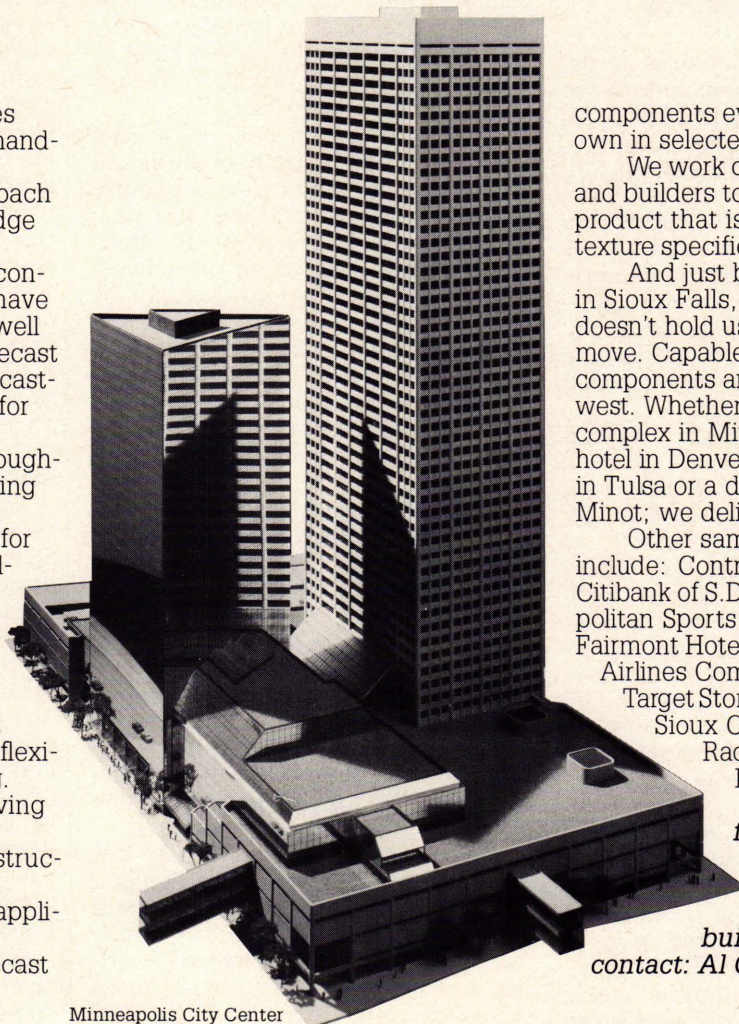
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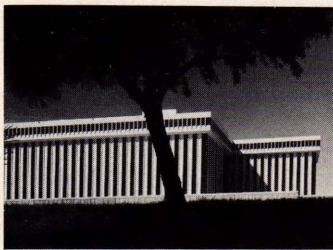
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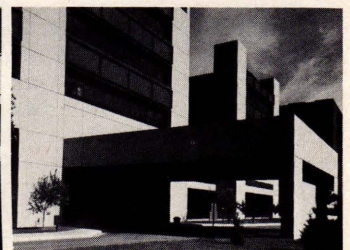
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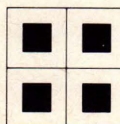
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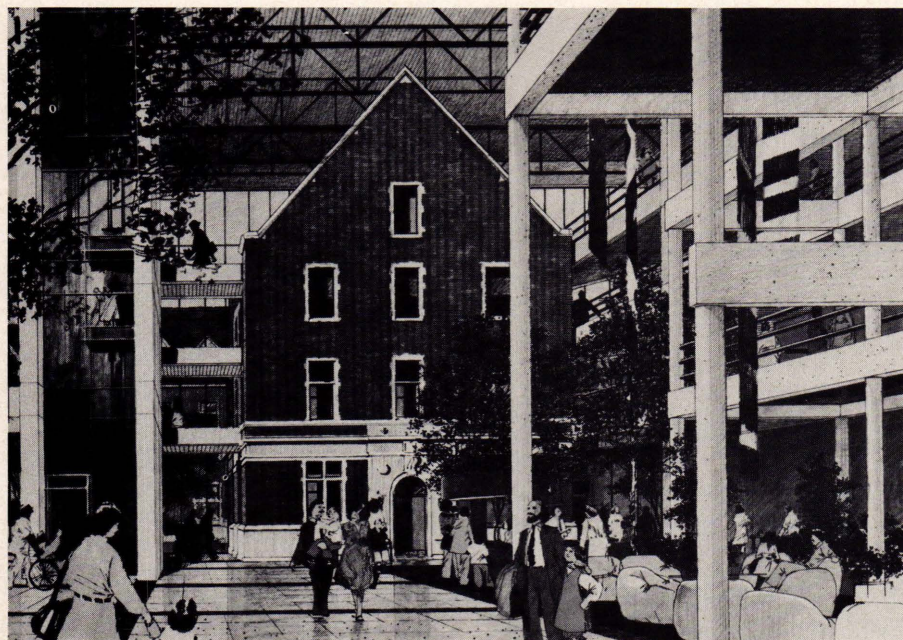
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news, notes & opinions



For a new children's hospital—Disney-like ambience

A major medical facilities designer, the Ellerbe Associates, Bloomington, MN, reports it has changed its basic hospital design philosophy with its planning for a major new project—the James Whitcomb Riley Hospital for Children at the University of Indiana.

According to Wayne Bishop, a concept designer for Riley Hospital, all aspects of the design are oriented around the quality of the patient/family environment. He characterized the firm's past approach as "designing the most efficient nursing station for a particular kind of patient care area and shaping the rest accordingly."

The Riley Hospital for Children is a referral hospital, treating only the most seriously ill. When completed in 1986, the new 235,000 square foot wing will contain 146 patient beds, major critical care facilities including the neo-natal intensive care unit, the pediatric intensive care unit, surgical suites, and the major medical ancillary services. The original hospital, except for a 1960s addition, will become an outpatient clinic.

A five-story atrium entrance will become the focal point for the entire

complex. Connecting the original Riley Hospital and the 1960s addition with the new wing, the atrium is intended to be a light-filled lobby full of activity. "We wanted to excite rather than depress a child coming into the hospital with a fun, Disney-like environment," says Bishop. The atrium incorporates one end of an 1890s building which serves as a stage set-like backdrop to the lobby and a mask for the corridors cutting through it.

In addition to the lobby, special places where parents and children can interact will extend throughout the hospital, from exterior courtyards at ground and roof levels to "induction rooms" where parents may remain with their children during anesthesia.

(AM will cover the James Whitcomb Riley Hospital for Children in greater detail in an upcoming issue.)

Coming soon—district heating in St. Paul

The largest district heating project in the nation is now being built in St. Paul after five years of planning, legislating and funding both by private and public bodies. On September 30, the last two hurdles were jumped: the customer commitment goal was not

only reached but surpassed; and Gilbert/Commonwealth of Reading, Pennsylvania submitted its final report stating the project is financially feasible and should proceed.

Operated by the District Heating Development Company (DHDC), a private, non-profit firm, the district heating system will pipe hot water heated at a central source to downtown buildings to meet their space heating, domestic hot water and processing needs. DHDC has begun to retrofit its main heat source, a coal-fired steam plant formerly owned by Northern States Power Company. Excavations for the piping system will begin in March and by next fall, hot water will begin to flow through the system. In 1986, one year after full construction has been completed, the system is expected to save enough energy to heat 10,000 homes annually.

By 1990, target district heating prices will approximate 72 percent of natural gas prices, according to Monica Krautbauer of DHDC. She says that this was the key to convincing many building owners to undertake the cost necessary to convert their buildings for the district heating system.

The St. Paul system was conceived as part of a Twin Cities District Heating Plan which eventually would connect much of the metropolitan area. Starting from downtown St. Paul, the system is expected to expand to adjacent areas as soon as it is economically possible.

"E" symbol's sculptor wins \$25,000 NEA grant

Neon artist Cork Marcheschi, creator of the neon sculpture of the energy symbol for the national American Institute of Architect's convention held in Minneapolis in 1981, has been awarded a Visual Arts Fellowship by the National Endowment for the Arts. He will receive a \$25,000 grant for 1983–84 to further his work in the visual arts.

Marcheschi is a faculty member of the Minneapolis College of Art and Design. His neon work has been exhibited in Europe, Japan and South America, as well as in New York, San Francisco and Chicago.

Continued on page 56

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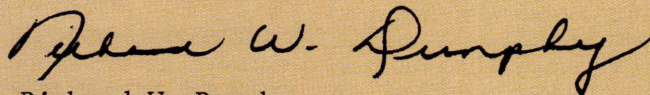
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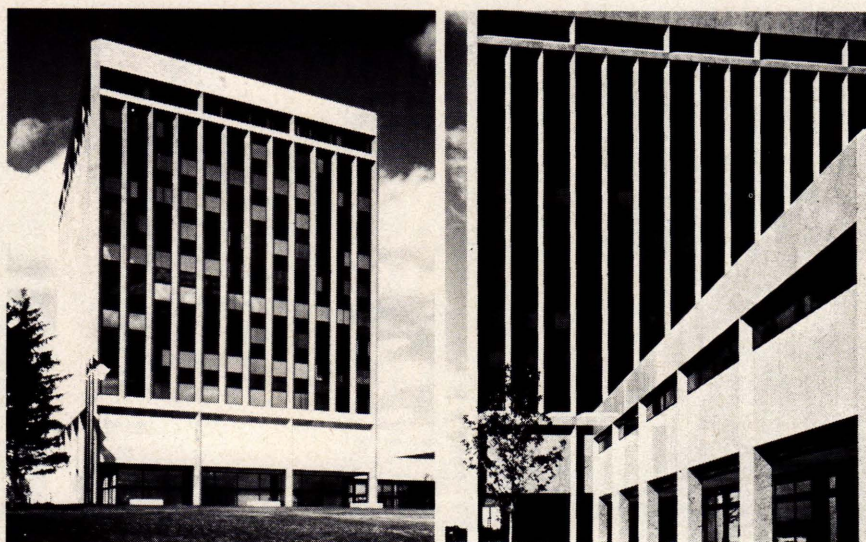
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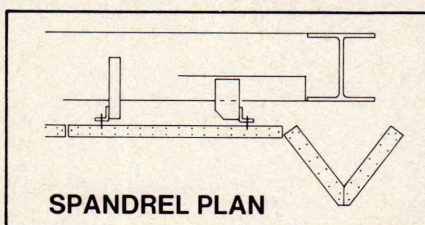
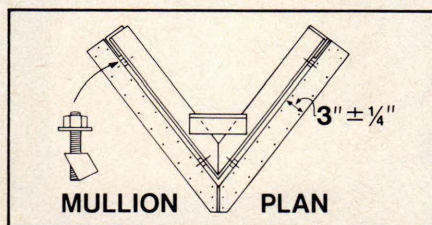
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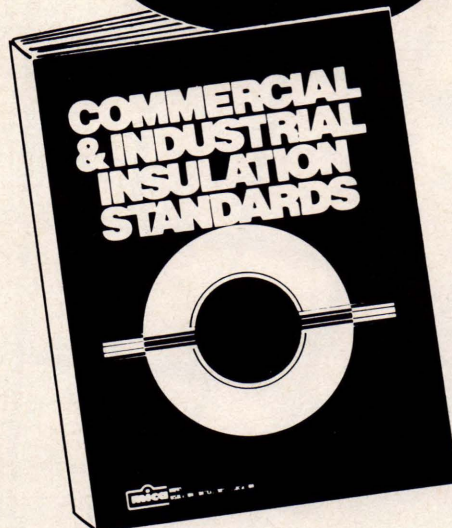


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General Contractor: George Grant
Construction
Dimensions: 9' x 220'
Location: Endicott Building, St. Paul

scanning the media

Being a collection of hard facts and appealing notions gleaned from the pages of periodicals you'd read if you had the time

Is the Big Apple overripe?

NEW YORK'S ROMANCE WITH CONGESTION SHOULD END. So argues critic Paul Goldberger in "The Limits of Urban Growth," November 14 New York Times Magazine. The new building wave threatens to topple an already overbuilt city. Now traffic averages five miles an hour, when it moves. Sidewalk congestion is crushing. Noise levels and air pollution in the ever-rising canyons make the notion of urban quality a sad joke. And the city continues to grow up not out, as ever-larger buildings shoe-horn into the poshest spots on Manhattan's Monopoly board.

Land costs mean maximum density must be squeezed from each site. The light and air provided by a St. Bartholomew's Church or a Lever House become unaffordable. City zoning incentives have also increased density, says Goldberger. "Smaller buildings might have been the best amenity of all." One solution he offers: city control of air rights to be distributed for good not greed.

Capitalizing campus land

FACED WITH HIGH OPERATING COSTS, DECLINING ENROLLMENTS AND LESS PUBLIC SUPPORT, MANY UNIVERSITIES ARE EMBARKING ON REAL ESTATE DEVELOPMENT VENTURES TO BOOST REVENUES. Working with private developers, universities are taking a fresh look at their property holdings. "By far the strongest interest in universities," writes Douglas Porter, director of growth and policy research for the Urban Land Institute, in *Urban Land* (August), "is in the establishment of research parks which will attract research activities of interest to faculty and students." The model they most often seek to emulate is Stanford University, according to Porter. Over 80 organizations, many of which are research-oriented, occupy the 660 acre Stanford Industrial Park. Begun in 1953, it helped spawn the development of nearby Silicon Valley. Stanford also developed a highly successful shopping center on its land.

Porter points out that universities

have always had responsibilities for property management. But they have guarded their land, often conserving it intact against the day when university expansion would require it. To develop it, Porter recommends that potential campus capitalists resolve two issues which typically arise: setting up a management structure free of potential conflicts of interest; and, for public institutions, keeping the legislature's cotton-picking hands off the revenues.

Imagery for corporate image

ART COLLECTIONS FORM AN INCREASINGLY IMPORTANT ELEMENT OF THE CORPORATE IMAGE. *Corporate Design* reports that one-third of the largest U.S. corporations have major collections, mostly of contemporary American art. Corporations collect for a variety of motives: to support artists, enhance employee environment, and build corporate image. While some buy purely decorative art, many employ special advisors to choose the highest quality. One major reason for the growing collections: the stark modern style of corporate architecture demands decoration.

What price graffiti?

INCREASING VANDALISM IS FORCING PLANNERS TO RE-EVALUATE THE DESIGN OF PUBLIC PLACES. It has been estimated that between two-thirds and three-fourths of all vandalism is aided by the physical characteristics of the setting in which it occurs. Reporting in *Psychology Today* (Sept. '82), human-factors psychologist James Wise says that most vandalism occurs as a part of the normal use pattern of an area, and is therefore "controllable, to some extent, by the designer's pencil and eraser." Wise believes the cost of repairs (estimated between \$250 million and \$500 million annually in the U.S.) could be substantially cut by using an approach he calls "de-opportunizing design." By directing the user's perceptions and ac-

tions elsewhere, the likelihood of vandalism occurring is greatly reduced. "De-opportunizing a setting," says Wise, "means designing *out* the ways and means by which it can be damaged as a part of ongoing activities and designing *in* the props and cues that encourage non-destructive use."

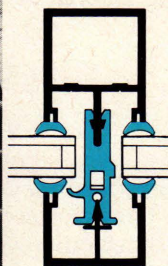
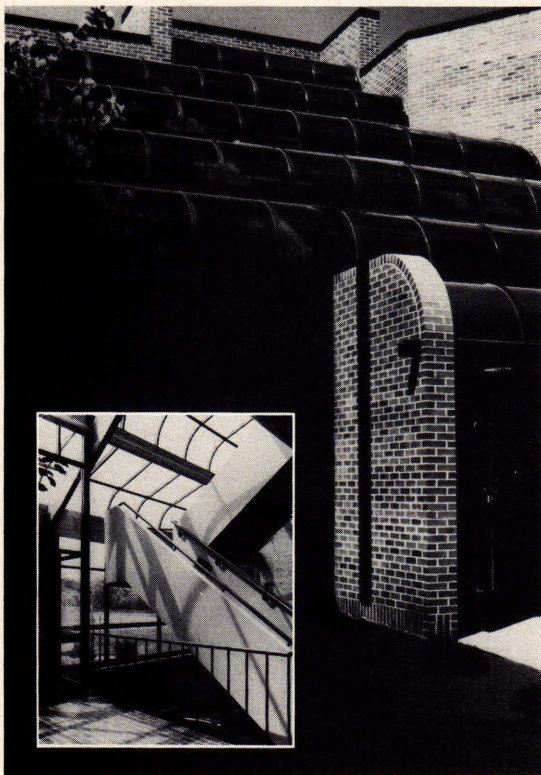
Windiness is its own reward

BY THE YEAR 2000, WIND ENERGY COULD SUPPLY 10 PERCENT OF U.S. ELECTRICITY NEEDS, A SMITHSONIAN ARTICLE REPORTS. The fledgling wind industry must surmount financial and technical obstacles to meet that goal, but more and more sleek wind turbines dot the landscape. Unlike the bladed wheel of the lonely farmer, the new turbines use one rotary blade atop a single pole. The bird-like forms whirl in groups, often on formerly marginal land. "Nobody ever wanted to live out here in the wind," says wind farmer Joe Jess of California's Altamont Pass, east of the Bay Area. Now his cattle scratch their backs on the turbines.

Amen for amenities

THE PROXIMITY OF URBAN PARKS CAN ENHANCE THE VALUE OF A HOUSE. In its monthly feature, "Economics of Amenity News," the newsletter *Place* (November) reports on a U. of Massachusetts study of the cost effectiveness of urban parks. "Apparently property values rise the most," says the study group, "when a nearby park emphasizes natural open space as opposed to intense development for organized recreation." Proximity, it seems, also counts. In Worcester, for example, the study finds that a house, on the average, located 20 feet from a park sells for \$2,675 more than a similar one 2,000 feet away. The researchers also calculated that parks are worth about \$1 a visit. For a particular town's 219 acres of urban parkland that costs \$125,000 a year to operate, some \$424,597 was generated annually through public usage.

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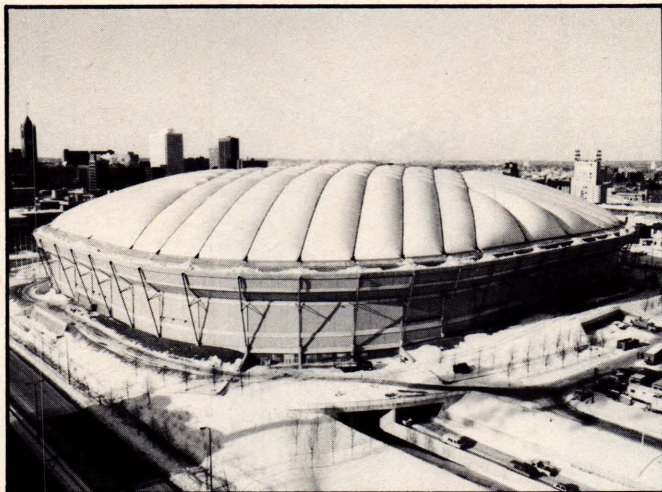


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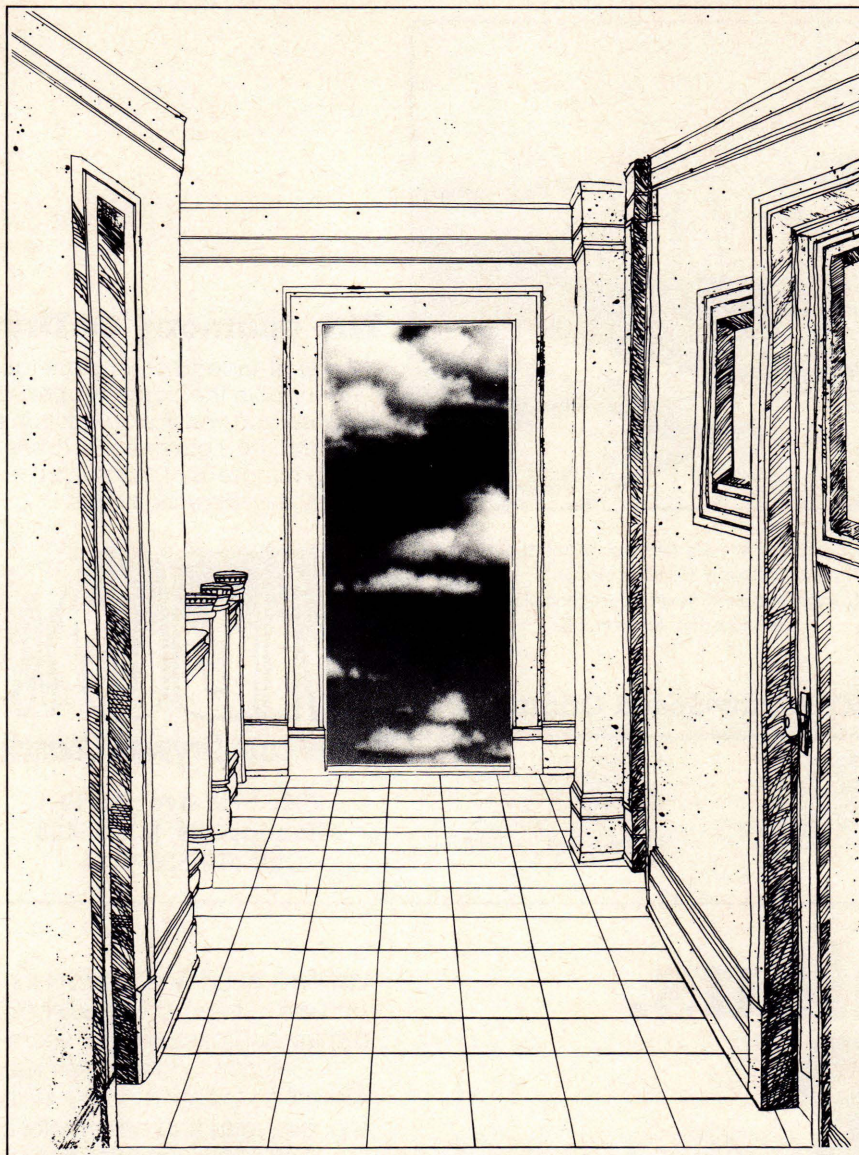
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The designing Danes . . .

On my first visit to Denmark many years ago, I was lucky enough to be given a guided tour of Copenhagen's newest office tower by its designer. The building was the Scandinavian Airlines Systems headquarters, and the architect was the late Arne Jacobsen. We strolled about the main floor, a high-ceilinged, glass-walled space whose focal point was a public lounge area. It was furnished as if by a gifted designer doing a personal sitting room.

"Who designed the chairs?" I asked.

"I did," Jacobsen said.

"And who designed those curtains?"

"I did them, too."

"The ashtrays?"

"Yes."

And so on. Jacobsen had not only designed the building but also everything in it: the hardware, the occasional tables, the lighting, the tableware, the napkins—all the eye fell upon.

I could not hide my astonishment, for until then I had never really understood that the title, "architect," in the European tradition, is synonymous with the umbrella noun, "designer." Jacobsen, the architect, had created a structure and also designed the micro-environment inside it.

But this feat, I discovered, was only half the story. At that same moment, Jacobsen and his ten-man office were working at a macro-environmental scale. To this day it remains incomprehensible to me, a non-architect, that so few people could have carried out a commission to master plan the reconstruction of an entire city: war-devastated Essen, Germany.

Jacobsen may have been Denmark's best known architect, but he was hardly Superman. Basically, his sense of the architect's scope was no different from that of most Scandinavian designers: they are predisposed, by temperament and training, to design any-

thing they can get their mitts on. Lest you doubt the plain truth of this predilection, I invite you to turn this page and sample the versatility of the Danish design provenance, as gleaned by AM's editors from an important exhibition assembled by the Danish Design Council and provocatively titled, *Design: The Problem Comes First*.

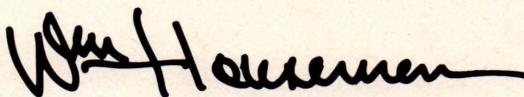
. . . and Ralph Caplan

What about Ralph Caplan? Well, Ralph Caplan has written a book—*By Design*, by name—that threatens to blow his cover. He has been recognized by the *cognoscenti* for years as perhaps the most thoughtful critic, and certainly the most engaging apologist, among all who trouble themselves with trying to dissect the holistic design world. Now the rest of us may understand why.

Because Ralph Caplan is a friend of mine, I am prone to imagine I derived something special from his book: his finely honed sense of design's pretensions, for example, always expressed with anecdotal precision; or the wryest of wits, invariably fastened on the most pompous of targets.

Yet, as with Levy's rye, you don't have to be a friend of Ralph Caplan's to like him, not only a little but a lot.

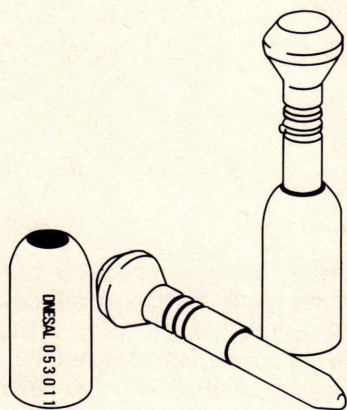
AM is pleased to print the better part of one chapter from *By Design* in this issue. We deliberately chose an off-beat subject—the design of *situations*—for at least two reasons. For one, the idea of following something as hard-edged as the Danish design feature with something as utterly amorphous as the design of situations satisfies an editor's taste for organized quirkiness. For another, nobody in the contemporary design scene writes with greater clarity than does Ralph Caplan of the deep philosophical wellspring from which all significant design flows. Which is, of course, society itself. How else could a person make situational design as plausible as the design of a doorknob?



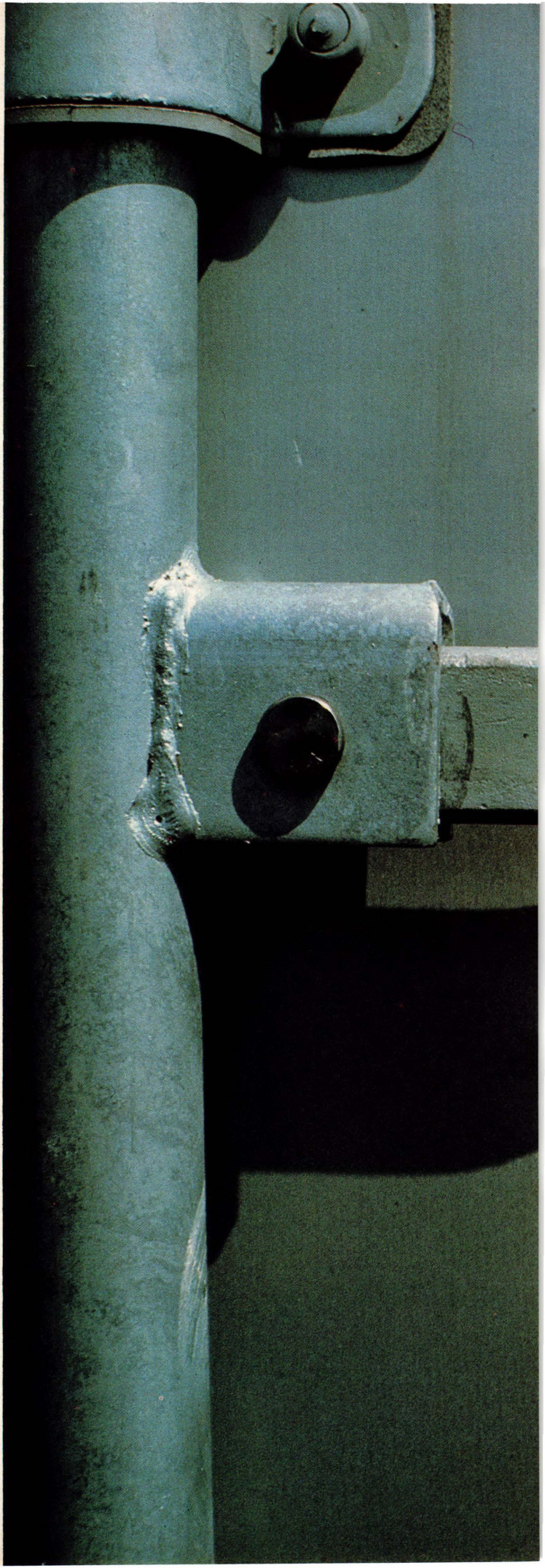
William Houseman
Editor

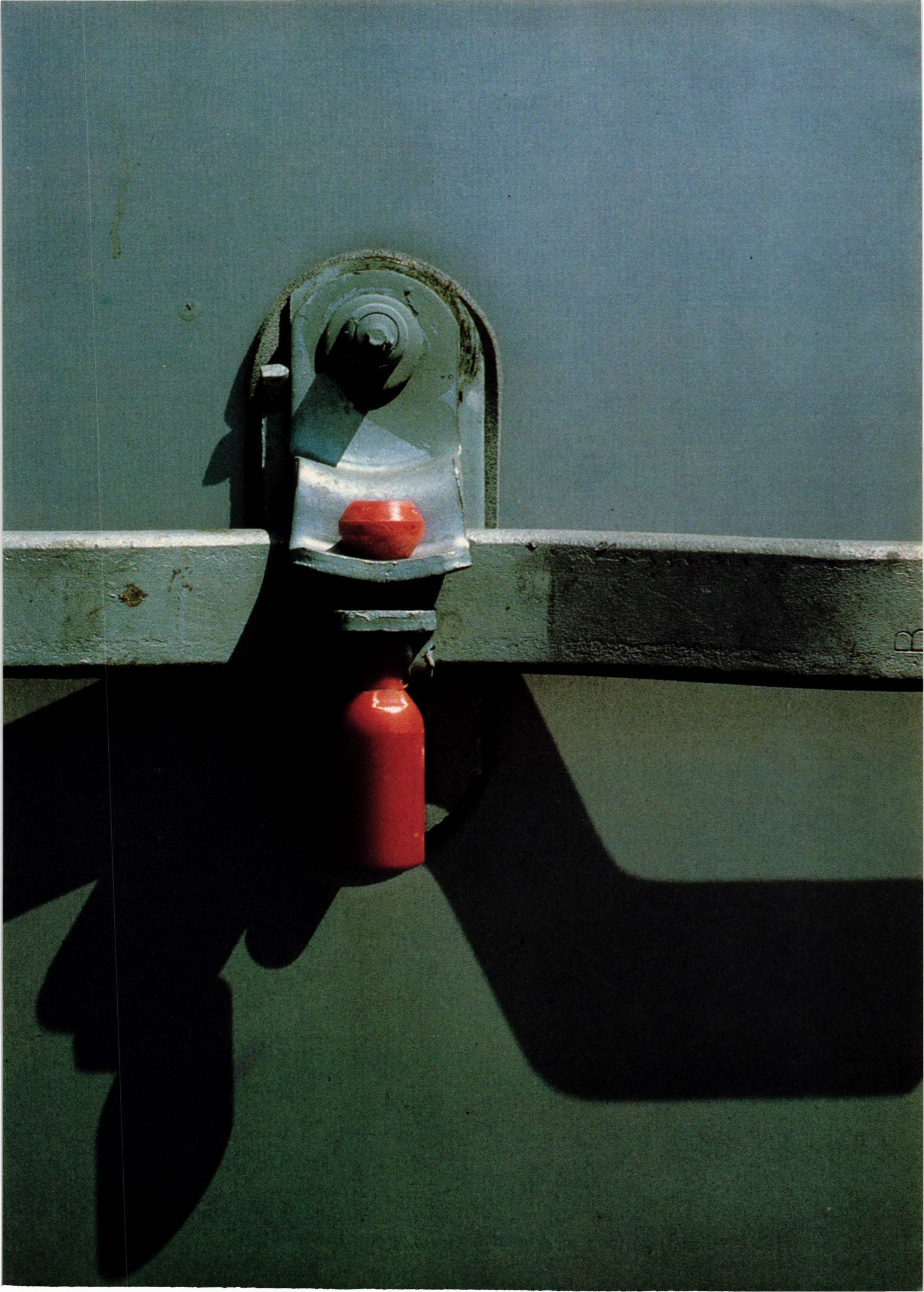
DESIGN:

the problem comes first



Photographs courtesy Danish Design Council





DESIGN:

the problem comes first

The odd-looking padlock on the preceding page exemplifies a mind-stretching way of finding superior solutions to provocative problems. It is one of 26 products—many new but a few quite old—whose genesis is cogently explored in an exhibition recently on view at the Cooper Union in New York, courtesy of the Danish Design Council.

The exhibition's theme—*Design: The Problem Comes First*—is itself provocative. It suggests that the *statement* of a design problem unlocks the door to its solution. And that's not all. "The decisive factor," reads the show's prospectus, "is the quality of the problem statement. If it is good enough, it may hold the key to a revolutionary design, in which case the two cannot be separated: the problem statement and the problem solution."

If it is good enough—that's the operative condition. To drive home the point, the exhibition's producers compare two problems statements as follows:

"The problem statement, *Invent a lubricant which makes the axles of a machine rotate with less friction*,' is not of extraordinary quality, and it yields no substantial contribution to the creative process.

"On the other hand, the following problem statement holds the key to a revolutionary design: *Rolling friction for metals is less than 1/20th of sliding friction. Construct a bearing where the weight of the rotating axle is transferred to the stationary part of the machine by means of a rolling motion instead of via a sliding motion.*"

Says the show's producer, "The diagram which illustrates this problem statement is also very close to being a description of the solution: the ball bearing."

Such is the deceptively profound message conveyed through the Danish Design Council's show: namely, good design is as much a question of asking the right questions as answering them.

How does the odd-looking padlock on the preceding page satisfy this proposition? You will immediately see that this device does not look like an or-

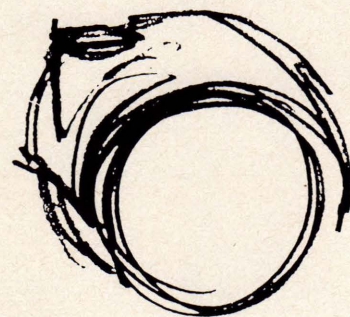
dinary padlock; it lacks the familiar U-shaped hasp, and there is no place for a key to be inserted. Why no key? Because the problem statement did not require one. What it did ask for was this: "Design a lock that is much cheaper than a padlock but offers the same security and which is *intended* to be opened by a bolt-cutter."

Designer Michael Remark's solution incorporates the bluntest reality and the subtlest nuance. Since even an expensive padlock for securing a shipping container would have to be opened with a bolt-cutter (you can't tape the key on the container), why not design the lock to be cut? As for proof against tampering en route, a container is precisely analogous with a wax-sealed letter: however delicate the sealing device, any breach is conclusive. In Remark's invention, a steel wire is embedded in transparent plastic. "The lock signalizes that it cannot be broken or smashed by a hammer. In this way the lock acts as its own deterrent." To reinforce its value, each lock is color-coded, numbered and marked with the customer's name—a stratagem that discourages the lock's being cut in two and replaced by a new, identical lock.

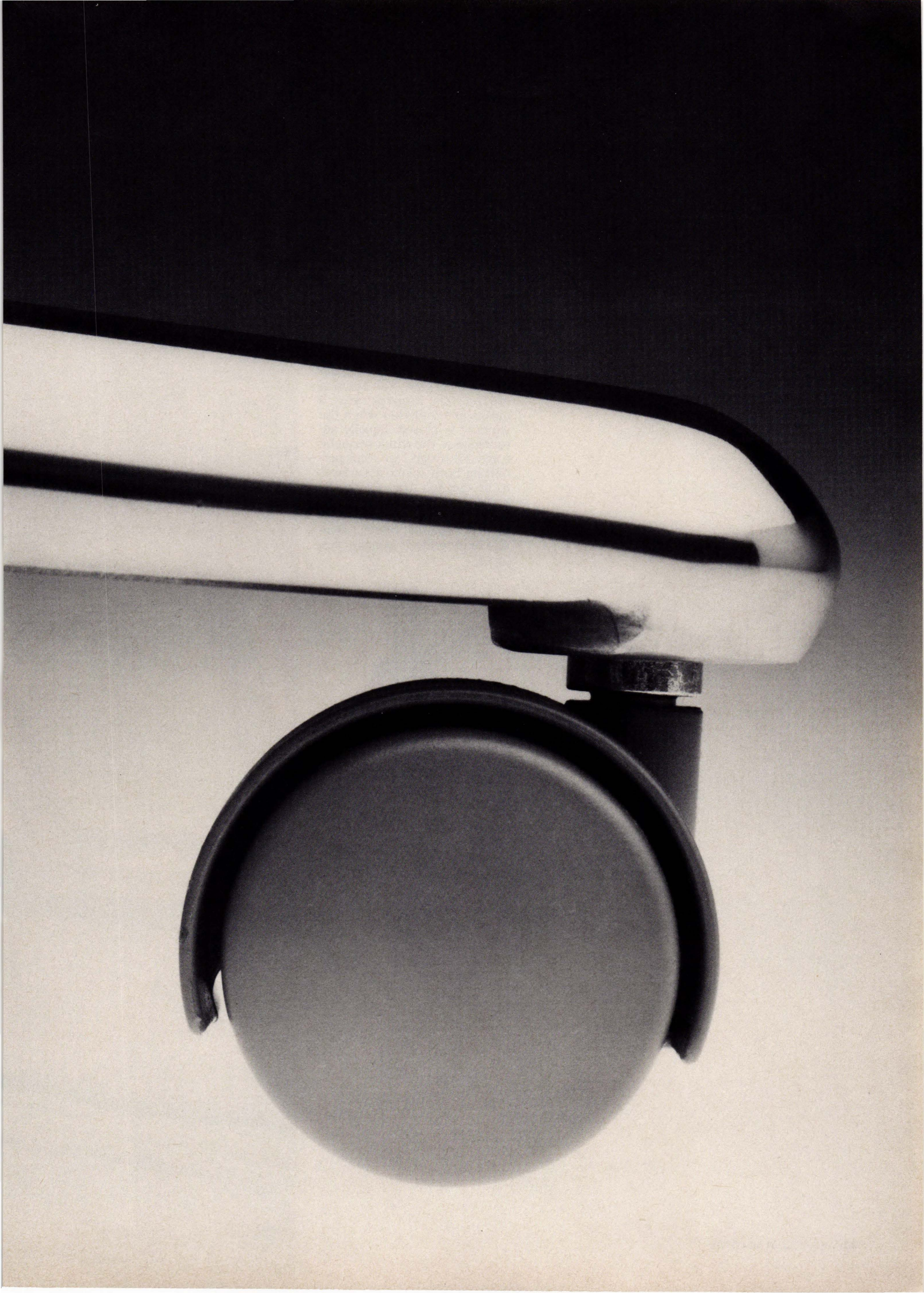
The Kevi twin castor has solved the rolling office chair problem so perfectly that it gets knocked off by unauthorized imitators an estimated 100 million times a year.

Architect Jorgen Rasmussen's client, furniture manufacturer Bent Harlang, didn't want much—just "a castor that is cheaper and better." To be *cheaper*, it had to hew to these manufacturing requirements: minimum material consumption, short manufacturing cycle, few components and automatic production. To be *better*, the castor had to satisfy these needs: maximum pressure area to reduce wear on floor covering, a cover integrated in the design, and "low fitting" height and easy swivel.

Rasmussen's first rough outline sketch, drawn in the mid-60s, not only answered the client's daunting requirements but also led to a product in 1968 that was its spitting image. "The Kevi twin castor with its integral cover," according to the exhibition catalog, "is a minimal construction which fulfills its function and is entirely free of superfluity." The castor consists of only five parts, and the distance between the vertical and horizontal axes, combined with the differential effect of the twin wheels, give the assembly plenty of mobility for direction changes, on rough or smooth flooring.



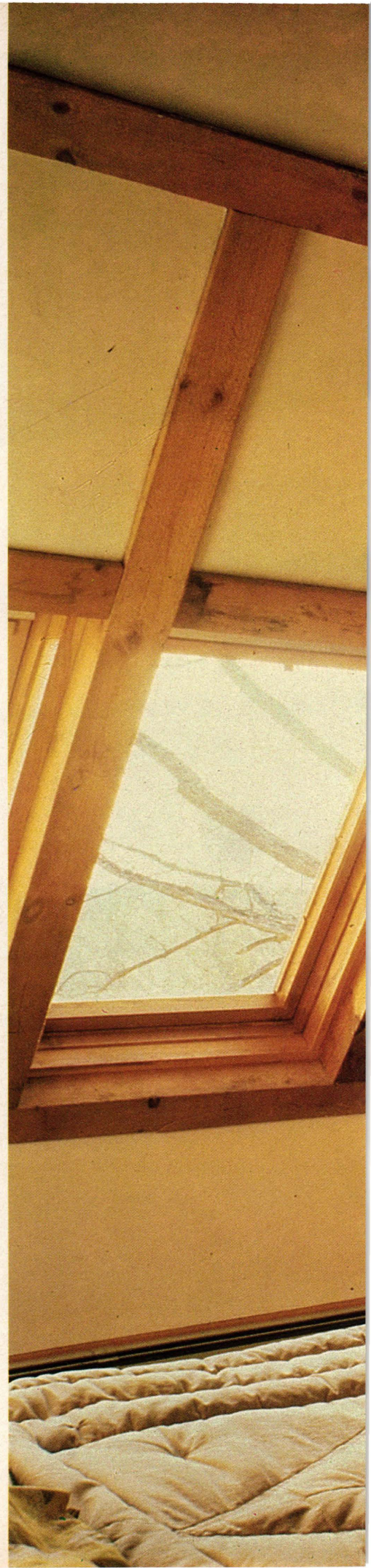
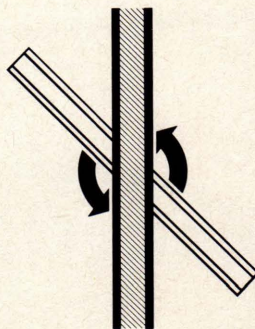
Photograph: George Heinrich



The Velux roof window has for 40 years helped to transform underutilized attics into first-rate living space.

The problem statement called for a means of bringing light and ventilation into attic spaces, economically and in a trouble-free fashion. In 1942, V. Kann Rasmussen & Co. developed its Velux roof window to help ease the housing shortage in post-war Denmark. Today, the window is used in many countries, the U.S. included, to utilize the attic space in both old and new houses.

The window is operated by means of a hand rail at the top of the window; this method enables its installation low enough to provide a view. The opening mechanism incorporates a means of ventilation when the window is closed. Equally advantageous, the window can be rotated through 180°, thus permitting both window surfaces to be cleaned from inside the house. Standard Velux accessories include flashings, roller blinds, venetian blinds, awnings and remote control systems.

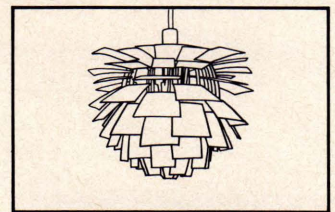
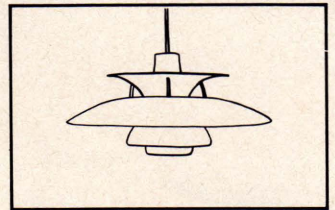
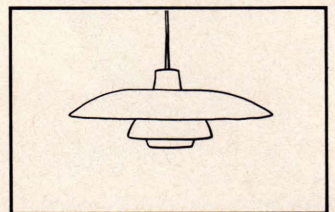
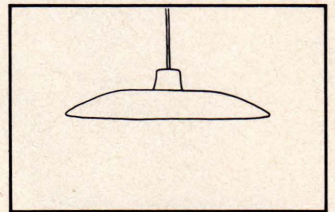
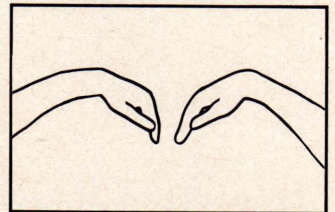
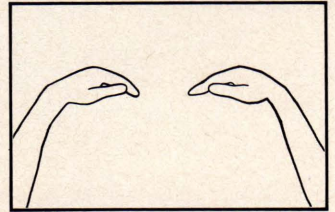
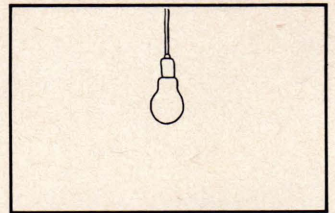




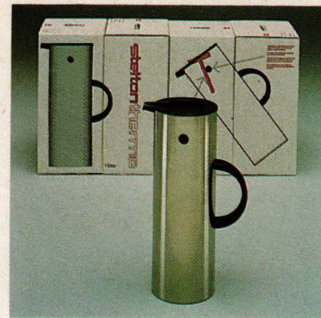
The classic PH lamp, still going strong 56 years after its invention, is the illuminating result of a problem statement made up of gestures rather than words.

The way designer Poul Henningsen arrived at the form to be taken by this famous PH lamp, as well as some 40 subsequent variations, was to think, not of the lamp but the light: "I must work with the light," he said to himself. "Direct it downward onto the table, where it is needed. Screen the bulb to prevent glare. And allow some of the light to pass upward and out into the room."

It is easy to imagine Henningsen making hand gestures such as those sketched here literally to give shape and purpose to the lamp seen in his mind's eye. Notes the exhibition catalog: "The PH lights are the results of a succession of problem statements and solutions, and they have made a fundamental contribution to the theory of lighting. They have allowed a greater understanding of the significance of the way a room is illuminated, of the modeling effect of the shadows on objects, on the experience of the true color and texture of materials, and the importance that the light fitting does not glare."



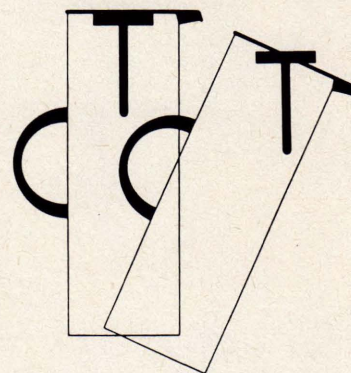




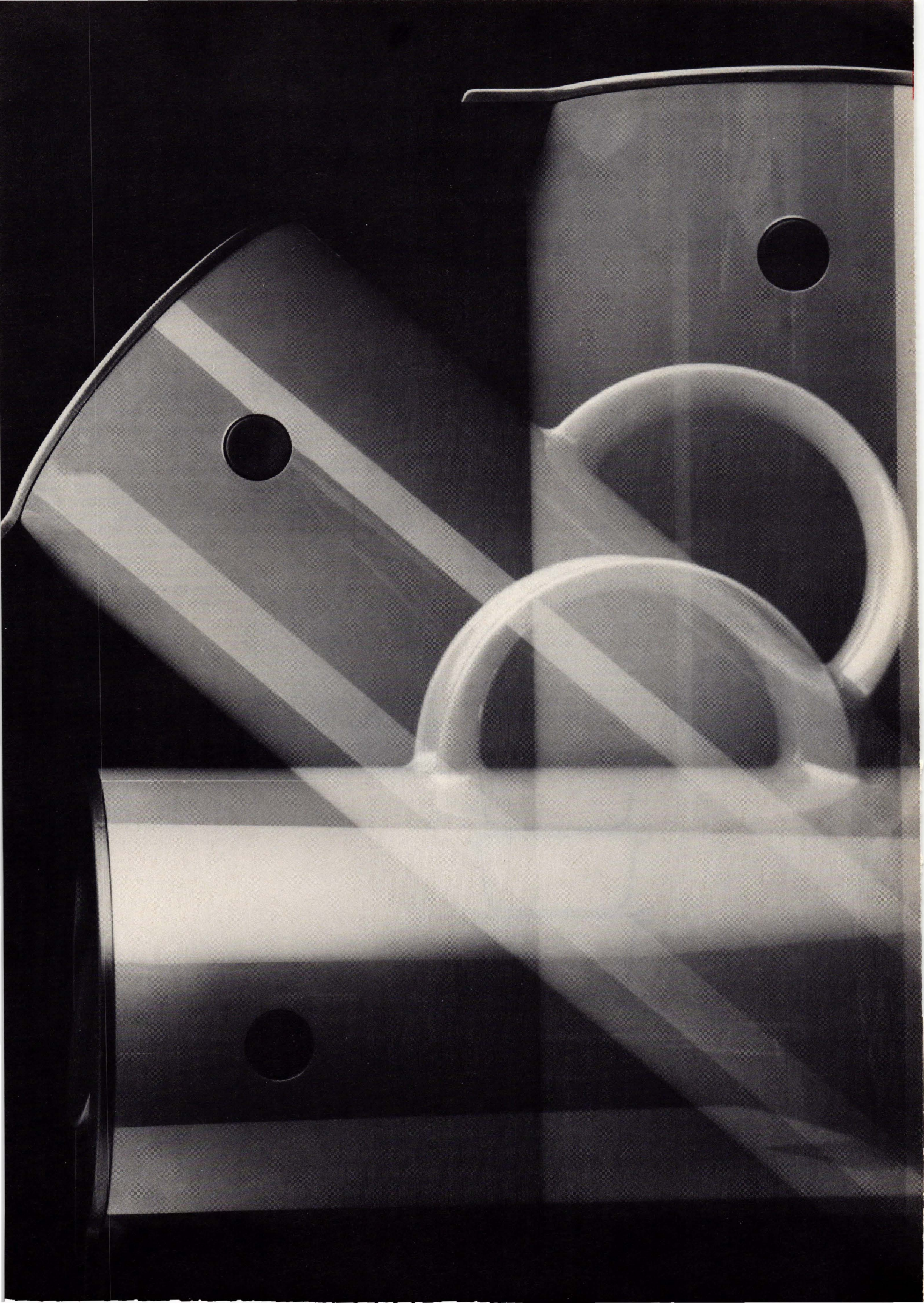
The Stelton vacuum thermos jug sets the world's quality standard today because its designer restated how a vacuum jug ought to behave.

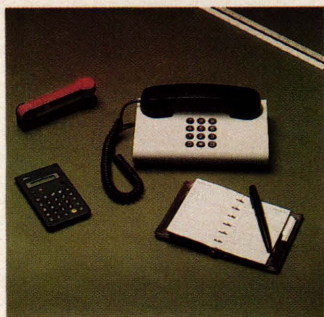
When Stelton commissioned ceramics designer Erik Magnussen to design a vacuum jug, he proceeded on the assumption what most needed changing was not the jug itself but the lid. Lids, he felt, were ambiguously designed to twist or turn, had to be manipulated by unsure users, and the lid was often loosely applied. So he thought: why not let the tipping of the jug open and close the lid? His answer was to redesign the lid with a rod, weighted at its bottom, that goes down into the jug. The lid rests on a flange atop the jug, well above its center of gravity. As the jug is tipped, the lid opens due to tendency of the weighted rod to hold it horizontal. The lid is held in place by two legs with projection buttons which plug into holes in the cylinder. The jug consists of six parts—all assembled from the top.

Large photo: George Heinrich



PULL OUT →

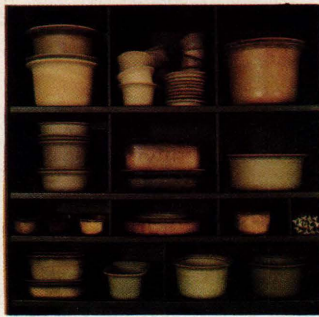
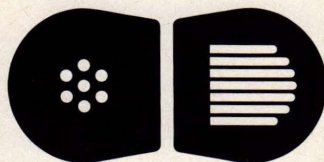




Still room, after countless refinements, for a better push-button telephone? Yes!

The shape of designer Henning Andreasen's new Danish telephone takes its shape in answer to two primary requirements: (1) the keyboard layout should be identical with the layout of a calculator's number keys; (2) the phone should assert unambiguously that that's what it is.

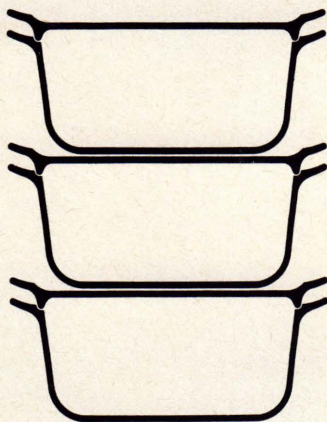
Says the catalog, "All F 78 telephones have black receivers with contrasting cases. It gives the telephone the character of a pictogram. It also makes it easier to manufacture and service." Of modular construction, the phone may have an automatic number caller added, as well as a final selector or a local switchboard facility.



Beautiful though it is, Royal Copenhagen's "Firepot" ovenware was required in the first place only to withstand transfer from freezer to oven without cracking.

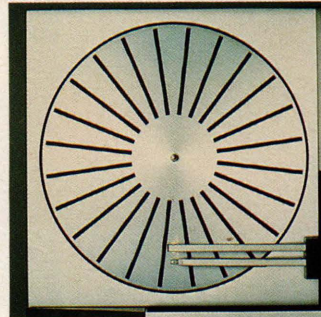
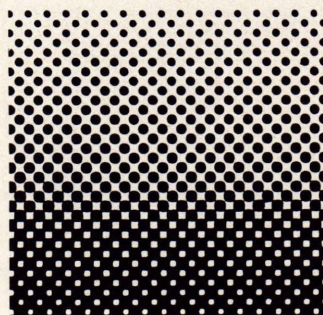
Technology achieved the necessary breakthrough: formulating a new type of clay for stoneware that would overcome the propensity of a baking dish to crack when its outer surface gets hotter than the inside. Then Royal Copenhagen asked architect Grethe Meyer to design "a range of ovenware, simple and sensible in form, and without decoration." The "Firepot" series, in addition to its ability to go straight from freezer to oven, comes in a range of sizes and forms, is easy to hold, stack and store.

"With use and over time," states the catalog, "the color mellows to shades ranging from light brown to dark brown and all the nuances in between. Due to its hand-crafted nature, no two baking dishes are alike."



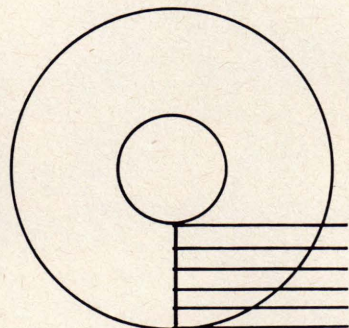
Whether right- or left-handed, you may use this new graphic densitometer (a photo/printing instrument) with ease.

The measuring probe that constitutes the eye of a graphic densitometer is normally located at one corner of the meter. This is undesirable on two counts: it places the most vulnerable component of the light meter in the most exposed position; and it makes the meter hard for lefties to use. Designer Jan Tragardh changed all that, as the above-pictured Eskofot FC 1 densitometer makes clear, in one fell swoop.



A record player that plays music the same way it was recorded.

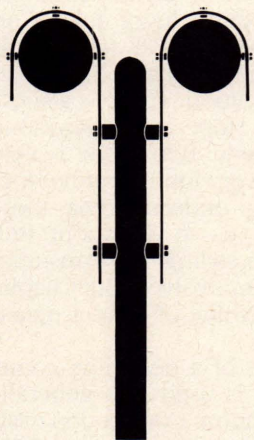
As everyone knows, but hitherto never thought much about before 1972, the pick-up arm of most record players slices obliquely across the record's surface. Such an angle distorts the sound, inasmuch as the recording was made differently: the pickup arm in a studio moves sideways as it records, maintaining a 90° angle with the radius of the record. Not surprisingly, design-conscious Bang & Olufsen and designer Jacob Jensen saw the error of the industry's ways and created the Beogram 8000. It plays the music the same way it was recorded.





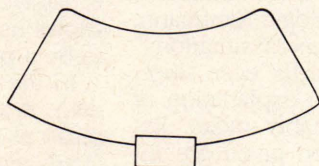
How obvious—but how long overlooked: a screened outdoor light fixture that is also a sign.

Lampas 6, designed by architects Friis & Moltke, is a simple metal construction in which the light is enclosed within a curve that causes a street number or whatever to be illuminated without glare. The Lampas people have expanded this basic design idea to encompass a complete system of signs.



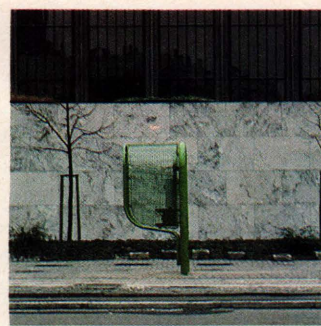
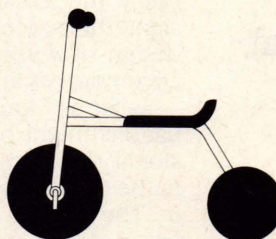
More than a metaphor, a social circle takes palpable form as an extension table.

The problem was age-old: Granting that a circular table is the ideal shape for gathering people about, how do you expand it without changing its shape (as by inserting extra slabs in the middle)? Professor Poul Kjaerholm drew for inspiration on the old-fashioned cook stove, whose cooking pot openings can be made larger or smaller by adding or removing rings. The table he designed for the Danish furniture-maker Fritz Hansens Eft. A/S expands from a surface that will seat eight diners to one seating twelve. "The extension ring consists of six identical 60° sections that interlock with the tabletop and with each other when in use. Otherwise the sections stand in a rack, forming a sculpture."



Used very much like a bulldozer, this tricycle is built like one.

"A tricycle," according to the manufacturer's program requirement, "must stand up to the same kind of treatment that a bulldozer does: it works non-stop all day, is outside in all kinds of weather, but unlike the bulldozer never sees the inside of a workshop for servicing." Acting on this stern criteria, the Pelikanen Design Office since the mid-70s has created a range of sturdy children's vehicles such as the RABO trike shown here for the Axel I. Rasmussen Company.

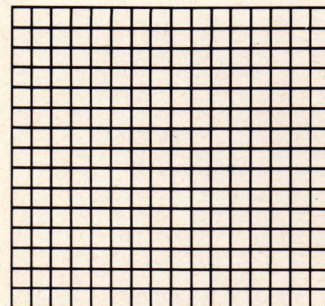


The "green roof" phone booth satisfies an almost wickedly contradictory problem statement.

Originally, the competition sponsored by the Copenhagen Telephone Company was simple enough. What it asked for was a new, open-air telephone booth. Then designer Trolle Trap-Friis (presumably with the phone company's consent) toughened the terms as follows:

"The telephone booth should have the characteristic of a tree with foliage in the middle of the city which screens without obscuring. Your silhouette within the booth should reveal that you are there, but at the same time you should feel partly screened. And you should be able to look out."

Three prototypes of the winning entry are now being tested. They are shielded visually by a wire mesh framed in a configuration of green curvilinear pipes. Inside, they are lined with transparent acrylic sheeting which screens users from the windy, rainy Danish weather. Wide enough for two, the booths are designed for use by children and wheel chair occupants.



the design of SITUATIONS

A keen observer tells us why no smoking in church and whispering in a library are the product of situational, as opposed to hard-edged design

By Ralph Caplan

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 sixties 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.

Situation design 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.

Situations are being designed all the time, but since they are not designed by professional *designers*, no design credit attaches to them.

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 are 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 is the Raymond Loewy of comedy. Bob Hope is very good at being very funny, but he does not lead to any understanding; there is nothing for us to *do* about Bob Hope—as with styling, the consumer is passive and uninvolved. But Chaplin shows us something of what it means to be a person.

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 type-writer case that becomes a wastebasket, or unintentionally, as in the Aurora "Transition" caskets with snap-in decorative panels to give the user a choice of pastels or as 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 Post Modernists threaten to take nothing else into account. It is fallacious to think that everything has to be either funny *or* serious.

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 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.

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, as William Hyde Whyte's film studies of behavior in public places show, is that people don't behave like the cardboard people in architects' models, because what the cardboard people don't do is behave.

Interior designers are in a position to design situations, and sometimes do, although too often they do it stereotypically. Think, for example, of all the restaurants that are scientifically unlit, because candlelight and other forms of darkness create "intimacy," although they make dining difficult and the only intimate behavior they encourage is a kind that's hard to manage during a meal anyway. Their ultimate effect is less the promotion of intimacy than the exacerbation of separateness. Dark rooms and soft music

are all a college boy needs to know about the parameters of seduction, but design research ought to have gone further than that by now.

A small midwestern town I know has a sun-drenched, outrageously public storefront bakery with a serve-yourself coffee bar, a few tables for snacks, but no booths. Far from romantic, the ambience is calculated to militate against even the subtlest flirtation. But one winter day I saw a couple there so deeply lost in each other that they were oblivious to the decor, the street traffic, the people around them, and even the pigs-in-blankets they were eating. Nothing in the way of dark woods, soft lights, or mood music could have added anything but what communication theorists call "noise."

It is more promising to look at interior design as a means of improving work. Not just productivity, in the efficiency expert sense, but pleasurable achievement. The so-called "office landscape," or open office, was introduced with great fanfare in the fifties, although no introduction was necessary to anyone who had worked in a newspaper office or seen a movie about one. Almost any old movie newsroom shows the advantages (low cost and ease of communication) and the disadvantages (noise, loss of privacy) of the arrangement.

Most offices are equipped with tools that do not look like tools, and so we lose sight of the fact that tools are what they are. Desks and office chairs, for example, have not so much evolved as happened. And the capriciousness of their happening has been compounded by the tendency of interior designers to make executive offices pleasant by treating them as parlors. Although this is a mistake, it is rarely a tragic mistake: most living room furniture is about as well suited to office work as most office furniture is.

It is true the performance criteria have been inescapable for certain kinds of office equipment, and such equipment has been improved and refined. Ironically it consists chiefly of tools for performing relatively unskilled tasks. Typewriters have steadily improved in design because the work of typists and word processors is a measurable (and increasingly expensive) commodity. ("Word processor" refers both to the machine and the operator, as "typewriter" used to.) The work of executives is measurable in the long run, but not in a way that can be clearly traced to the tools they use.

Desks, chairs and typewriters as individual objects are not the problem. The problem is the office itself, designed on the basis of everything imaginable except an analysis of what it is

for and how it is used. Few designers, and few heads of corporations, have seen any urgent need for such analysis. Office work is an abstraction. There is no reliable way to assess the effectiveness of the office, except in regard to its peripheral functions. Designers have established criteria for cold and warm offices, power-base offices and shirt-sleeves offices, but no criteria for office performance in supporting work.

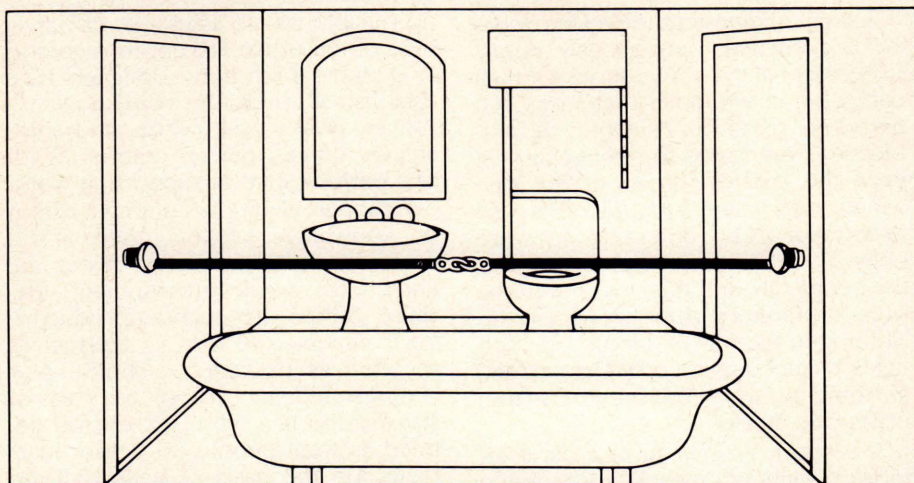
Although we are becoming a nation of "knowledge workers," there is still relatively little knowledge about the knowledge work environment. Because offices are such unproductive environments, we turn to alternatives as often as possible. A clinical psychologist tells me that, on the basis of statistics he has seen, sex can be defined as what people do before marriage. On the basis of statistics I am perfectly willing to make up, work can be defined as what people do out of the office. "He's at home today—he had a lot of work to do" is not an uncommon explanation of someone's absence from the office. Much of our work gets done in the Extended Office of restaurants, trains, airplanes, homes, phone booths.

The Jewish *shatbhn*, or matchmaker, is the classic situation designer. Part of a solid and very clear tradition, the matchmaker is an excellent example of the design process at work. Her constraints were money, age, looks, social position. Within them, she provided a service with results more easily measured than those of any advertising agency or corporate graphics firm. She knew her clients and their needs and used the situation in which her clients found themselves as a basis for designing situations in which *they wished* to find themselves.

Although the individual marital matchmaker has largely vanished from American society, other kinds of matchmaking persist. Computer dating services, churches and synagogues, executive search organizations. Both big government and big business have urgent and constant need for people whose only professional skill is in bringing other people together.

An especially rich document in the early literature of situation design is the U.S. Army's standing orders for Rogers' Rangers. Issued in 1759 by Major Robert Rogers, there are 19 orders, of which the first is "Don't forget nothing," and the last is "Let the enemy come till he's almost close enough to touch. Then let him

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DRAWING BY MILTON GLASER

Privacy in Quebec's L'Hotel Louis XIV bathrooms depended on ingenuity

have it and jump out and finish him up with your hatchet." Compare that, for clarity, directness, and anticipatory verve, with the last corporate policy memo you've read.

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 shirt-sleeves, but because a jacket was the only 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 for 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 call "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 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, 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. You can get them in vinyl, several grades of leather, canvas, fur, and even wood. The variety is dazzling, although I have seen none that surpasses in utility Blass' original, which unfortunately has been unavailable for years.

An ingenious example of the product-situation cycle could be found in a Quebec waterfront hotel called L'Hotel Louis XIV, lamentably destroyed by fire a few years ago. At the Louis XIV, the term "private bath" meant what it means in many European hotels: the bath is yours but not yours alone, for it is also the private bath of the guest on the other side of the bathroom. This creates a problem. If a bathroom has no inside locks, you have no privacy. But if the doors can be locked from the inside, one forgetful guest can lock the other out indefinitely and almost surely will.

Well, there were no locks inside the bathrooms of the Louis XIV, but tied to each doorknob was a three-and-a-half-foot length of leather thong to which a hook was attached. When you were in the bathroom you simply linked the two hooks together, holding both doors shut. There was no way to get back into your own room without at the same time unlocking the door for the other guest. It was memorable as the total integration of object and circumstance.

More complex and less charming than the Louis XIV bathroom is the Apollo space program. The design of a system for putting men on the moon and bringing them back could not have succeeded apart from the design of the situation in which those men would eat, shave, defecate, collect data and perform unprecedented acts in an alien environment. Nor could it have been brought off without the design of the situation on the ground: legions of men in white shirts who could be depended on to perform as reliably as the legions of machines they tended.

As spectacular as the product design

is, the situation design in the space program is what has held the public imagination. "If we can get to the moon, why can't we abolish poverty?" has been scoffed at as a simplistic question, but it is not. The traditional offering of government is bread and circuses. With the success of the space program people began asking why the intelligence and skills of circus management couldn't be applied to the distribution of bread.

It is perhaps easier to perceive designed situations in circuses than in social service. Theatricality has never been limited to formal theatre, and designers need to take this fact into account. A contemporary kitchen is not merely a space where cooking is done; more and more it has become a space where cooking is *seen* to be done. The cook rises to the occasion not merely by the preparation of a consummate soufflé, but by the display of tools with which to prepare it.

The "family room" of the suburbs is similarly more (and in recent years less) than a place for the family to do things together. It is a spatial advertisement for a way of life, the builder's explicit provision for the consumers' tacit announcement of the lifestyle they have moved to the suburbs to acquire. During those occasions, rare indeed in most families, when people are actually clustered in the family room, they look very much like the families in the TV situation comedies they are watching there. (An English architect visiting New York once remarked that the most striking characteristic of Americans was that they looked so much like American advertisements.)

The *principle* of situation design has been with us from the beginning. The Garden of Eden was charming as landscape architecture but significant only as process. As set forth in the Book of Genesis, the compelling design details do not lie in the vegetation, elegant though it was, but in the situation: a man, a woman, could have anything in the world they wanted, except the fruit. Under those circumstances there was only one thing in the world to want. Everyone knows that. If they tasted the fruit they were going to be in big trouble. But without the perpetual prospect of big trouble, there would be no eternal narrative to unfold. Every creator knows that.

However ancient a concept, situation design remains a fuzzy one. The Italian industrial designer Ettore Sottsass speaks of "the design of possibilities," a phrase I like better. Situations are cold and hard and once removed from dreams. Possibilities are nicer, and designing them is a lovely, daring prospect. To design *for* possibilities is a girl

washing her hair, then waiting at home for the phone to ring. To design *against* possibilities is buying life insurance. Both are dull ways of spending time.

But to design possibilities themselves is to open up new experiences. Sottsass referred to the Algerian government's interest in "the design of alternate possible Algerias." Certainly alternate possible Americas, families, ways of life and careers are familiar concepts to us, but they are rarely *design* concepts. Yet design is intrinsic to the issue: many of our most nobly motivated movements have foundered on design failures. In their zeal for an alternate lifestyle, hundreds of thousands have failed to distinguish between a lifestyle and a styled life.

Design is an abstraction. It is only when you unwrap it that you find the load of concretions it represents. Marianne Moore called poetry an imaginary garden with real toads in it. Design is a real garden with imaginary toads in it; the designer's role is to realize the toads.

It may seem odd to talk about the design of possibilities when we are so demonstrably inept at the design of probabilities. Our public streets are the discredited laboratories of design for pedestrian concern. Although in some states the pedestrian has the right of way, that is the only right he has. Everything is designed for the motorist. No, not for the motorist, for the car. Actually, streets are not that well designed for any of the three end users—pedestrian, motorist, or car. "Street furniture" is usually terrible, perhaps because cars don't have to sit on it. There are exceptions all over the country—in Portland, Oregon; in Minneapolis; even in New York. But for the most part, our benches, litter baskets, street lights, phone booths, and signs betoken a massive indifference to what things look like and how they work.

Architects used to speak of "making statements," but those statements were architectural or at least sculptural. The classic design statements have in an astonishingly literal way been sermons in stone. Apart from the function served (the Seagram Building, after all, contains office workers as well as design dogma), the buildings were preachy. But their text was narrowly limited to design, and the sins they railed against were the venial sins of eye and drafting table, and the virtues they exemplified were technologically sophisticated versions of the stonecutter's virtues.

The socially rooted design of possibilities is something else. It stands in the same relationship to classic design statements as protest demonstrations and love-ins stand to traditional Prot-

estant sermons. Ant Farm was the illogical extension of Gropius's Lab Workshop at Dessau; design is no longer a cause but a tool for reaching the unreachable. Small wonder that when radical theologians were declaring that God was dead, radical designers were declaring that so was architecture. Alternate lifestyles, to the communal designers, mean alternate architectures, alternate *goods*. Utopia is mapped by the *Whole Earth Catalog*, which begins with a battle cry for the design of possibilities: "We *are* as gods and might as well get good at it." (An improvement on the more common, but unstated, premise: We are as goods . . .)

It is tempting to see our cities as problems and to look for a grand plan that will solve them, but the rules of the game seem to preclude any such solutions. If instead we were to use design as a way of concentrating on making cities livable, they might begin to seem more like cities and less like problems. In any case, we would understand and like them better.

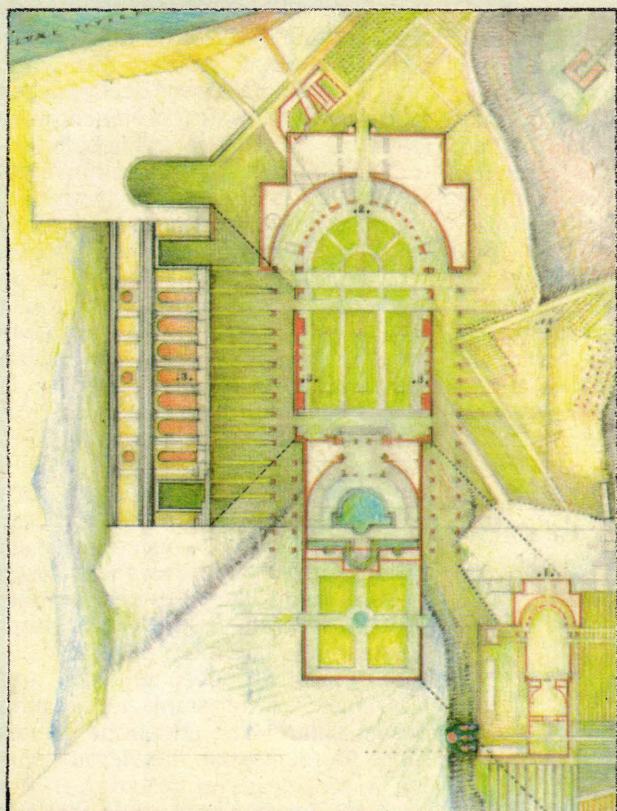
Our most advanced essential artifacts make us vulnerable to situation design failure. The telephone creates more problems than the elevator, giving A the means of reaching B, but giving B no chance to avoid that call without avoiding other calls he may want. Answering machines can take care of that one, but they give rise to more, and sometimes greater, difficulties.

"All we really have is time," writes Joseph Heller. "What we don't have is what to do with it." Because the design of possibilities is the design of what to do with time, it must combine vision with urgency. We have had visionary designers aplenty, but they generally fall into one of two categories. There are designers whose visions challenge everything we now know, but are based on a technology yet to be invented or a way of life few are tempted to pursue. At the other extreme are designers whose published work is visionary in the sense that it may never be built, not because it couldn't be but because it is more interesting on paper.

An example of a situational visionary (those who do not know jargon are condemned to invent it) is the Israeli-born architect Moshe Safdie, who came to public attention with Habitat, a housing experiment designed for Expo '67 in Montreal. Ada Louise Huxtable, writing in *The New York Times* the day the fair opened, said of Habitat: "Just about every housing and building rule,

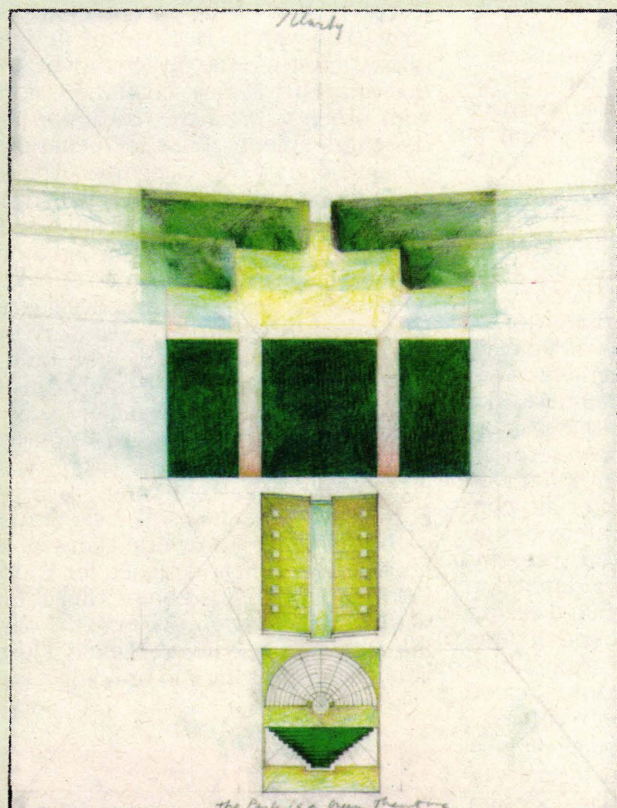
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BARBARA
STAUFFACHER
SOLOMON'S
**GREEN
ARCHITECTURE**

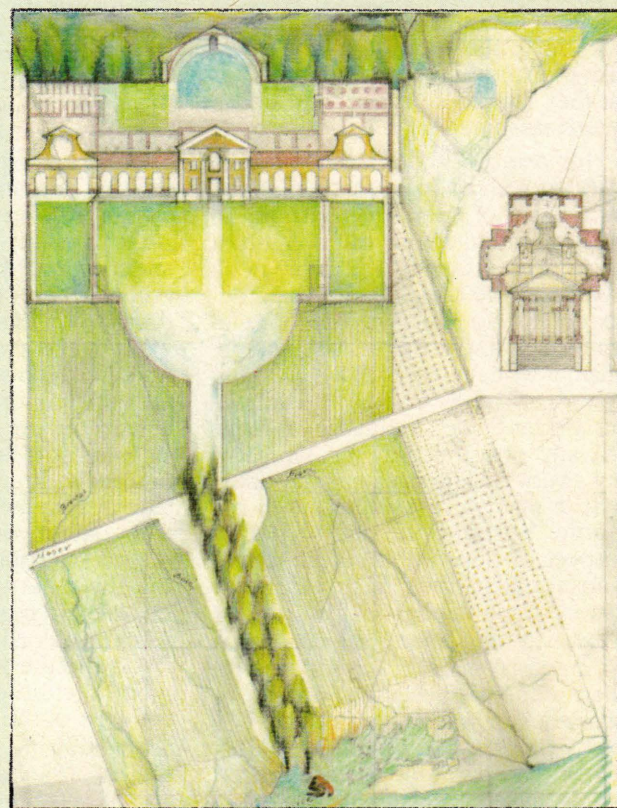


Villa Giulia, Rome

"A drawing can try to show the place as the architect and the original client conceived it, what historians have written about it, plus the way it felt to walk through it in the rain last Sunday." So writes Barbara Stauffacher Solomon in Design Quarterly by way of explaining the exquisite imagery of her current Walker Art Center exhibition of drawings titled, "Green Architecture." Famous in the 60s for her super-graphics (if not indeed their inventor), this artist has made an improbable leap to arrive at the subtlety of both line and mind demonstrated in her rendering of what she calls "the common ground"—that intentional overlap which both softens the hard edge of architecture and welcomes the sensitizing influence of the garden. Mrs. Solomon's new work, exemplified in these selections from her show, argue persuasively for the poetic abundance to be reaped in the well realized overlap.

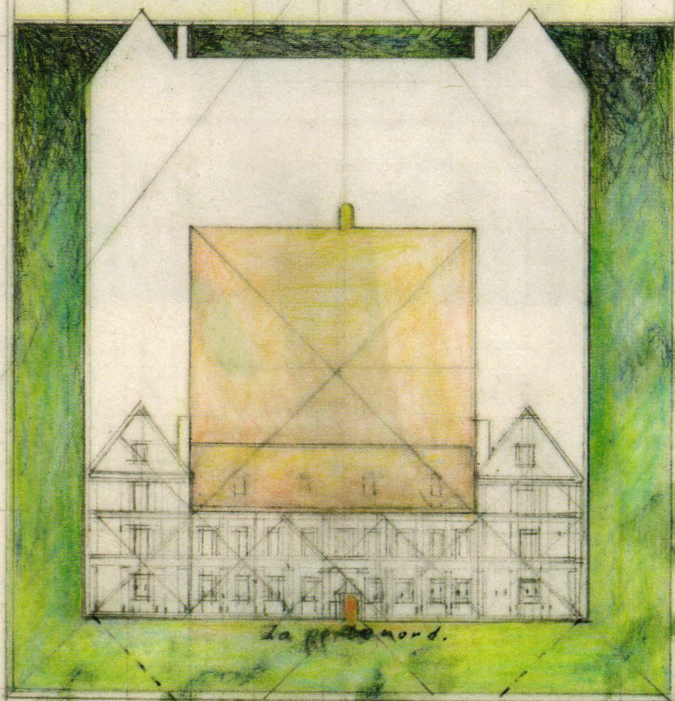


Marly, Ivelines



Villa Barbaro, Maser

Drawings courtesy Walker Art Center



La porte nord.

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SKI

WINTER PARK

A black beauty of a facility, this multi-level structure serves day skiers from Denver

West Portal Station is Denver's newest ski facility in one of its oldest public recreation areas, Winter Park. Named for the railroad tunnel entrance behind it (right), this crisp black building offers day skiers an array of services in a festive yet casual setting. It also provides the most extensive facilities for handicapped skiers in the nation.

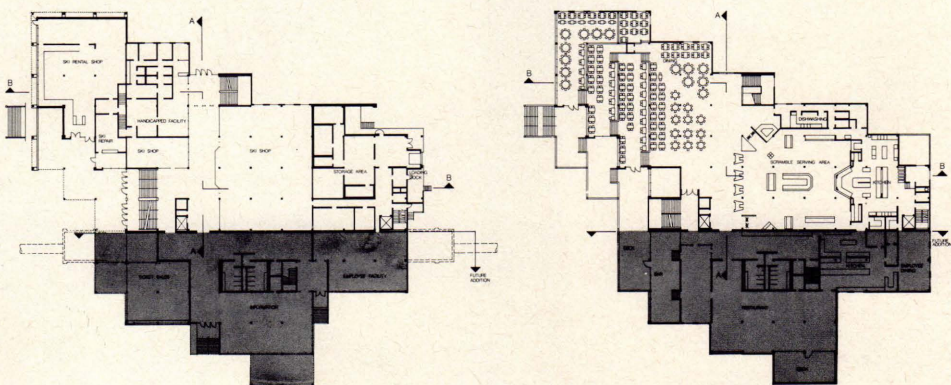
West Portal Station opened in June 1981, replacing an older building next door. Originally, the site had been a dump for the excavation of the seven-mile tunnel. The unstable soil conditions were not a major problem for the original building until coal use increased in the United States and the newer, bigger trains shook it apart. To compensate, the architects, Muchow, Haller and Larson of Denver, designed unique connections in the base columns to provide for future jacking adjustment—to a maximum of plus or minus 12 inches. "So far as we know, it is the first such application in the United States," says William Muchow, project designer.

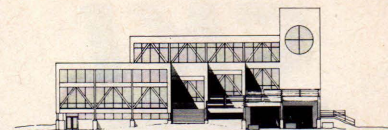
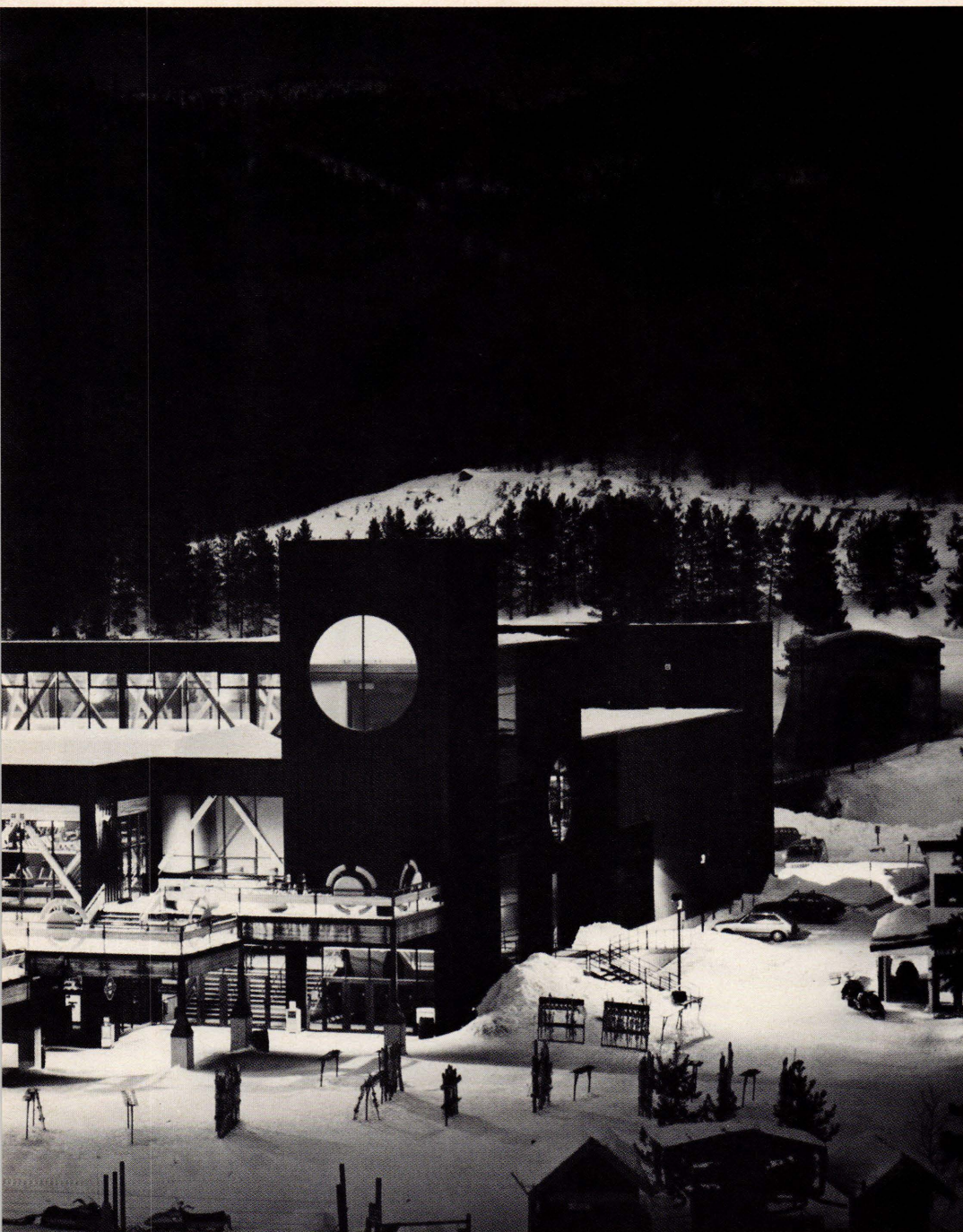
Fire codes eliminated the choice of wooden cladding, so the architect chose, instead, to fashion a building stylistically in keeping with the high-tech, high performance ski industry. West Portal Station is also purposely reminiscent of Colorado's earliest mountain structure: the mine shaft. Bold glu-lam beams and bright red railings complement the black metal siding in a stark composition against the snow. Its stepped facade provides wind protection to the south-facing decks and defines interior spaces. An interior circulation spine is marked by the clerestory bisecting the building perpendicular to the railroad tracks. When the future phase is built (see site plan), this corridor will connect the two halves.

Muchow says land across the highway is being sold to developers to build lodging. With the completion of a nearby golf course and other warm weather recreation facilities, Winter Park—and West Portal Station—will serve summer and winter visitors alike.



Photographs: Andrew Kramer © 1982



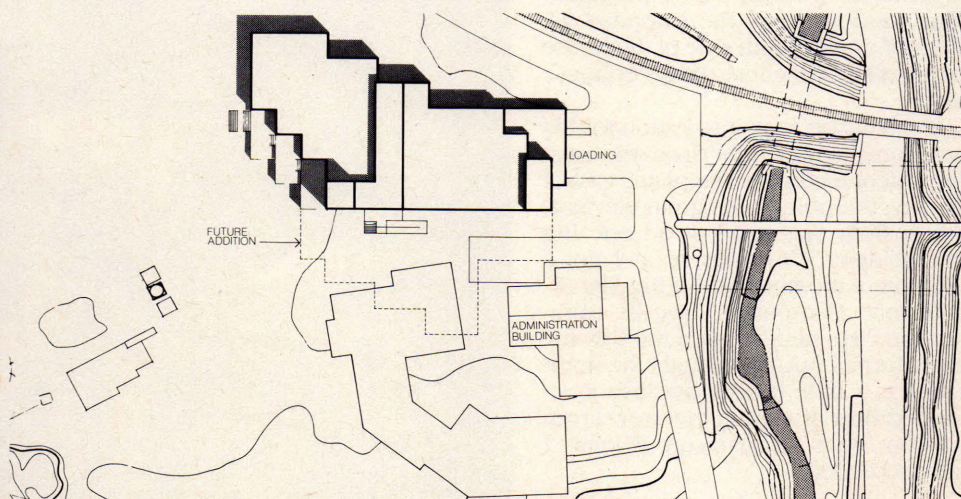


The internal layout of West Portal Station is apparent even from the slopes. The symbolic clock tower marks the major entry point to the building and primary vertical circulation. The clerestory behind it with its circular cut-outs at either end marks the horizontal circulation. Decks extend from the dining area.

The design separates the building's functions by floor. Public and employee lockers and restrooms are found on the basement level. On the lower level, visitors may rent or purchase ski equipment and handicapped skiers are equipped as well. A ground level entrance on the north side serves as the handicapped entrance and a convenient departure point for anyone with skis.

Upstairs on the second level is the informal "scramble" serving area where you go directly to the counter serving the food you want. Kitchen employees work within a short walk of any food counter. The layout conveniently minimizes cross traffic between those entering and those leaving the scramble (see photo below). The level changes and stepped plan gracefully divide the broad dining area into more intimate seating arrangements and provide a view of the action outside to nearly everyone.

The future phase (see site plan) will extend from the circulation system, adding, most notably, a restaurant and bar on the second level, and a penthouse meeting room above.



SKI

BIG SKY

Not quite three of a kind, these neighboring recreation houses nonetheless share a kindred appeal

Big Sky, Montana, is the place to go if you want Aspen quality skiing in a town populated by real instead of urban cowboys.

Minneapolis architect Bruce Abrahamson was skiing there with friends three years ago when they learned that several choice house lots had just come on the market. They snapped them up and this spring had the pleasure of skiing from their own doorways to the nearby chairlift.

Abrahamson designed all three vacation homes. In consequence, they are agreeably alike in their orientation, scale, exterior cladding, and, to a degree, massing. Yet they also reflect the tastes and living patterns of their individual owners. Even in blowing snow, it is unlikely a first-time visitor could mistake one for another.

House #1 (right), as the architect refers to it, was designed for a family enthralled with the site's view of Lone Mountain. The owner tracked down casement windows the same size as the six-foot sliding glass door Abrahamson used as a design module and had them wrapped around the third and fourth levels. It takes more energy to heat it, but Abrahamson says the family is happy with its decision.

Passive solar heating considerations shaped the configuration of the two upper levels of House #2 (upper right). Four windows span the extended gable roof on the south side of the house to direct sunshine into the greenhouse within.

Abrahamson took inspiration for his own home (lower right) from the most prominent feature of the plains east of Big Sky: the ubiquitous grain elevator. The analogy was not lost on one Big Sky resident. "One afternoon I got a call from a member of the Big Sky Architecture Committee," recalls Abrahamson. "He said he liked the way my house turned out, but thought the north side was a little boring because it reminded him of a grain elevator. From then on," says Abrahamson, "I knew I had succeeded."



Photographs: Bruce Abrahamson



Located on a pine-covered ridge, each cabin has four levels and is placed for maximum energy efficiency as well as pleasant living. The land drops sharply from the roadway to a stream running all year behind the cabins. Abrahamson made each building tall and compact to cut down on surface area and to save as many trees as possible. He says he also finds the smaller room dimensions cozier for cabin living.



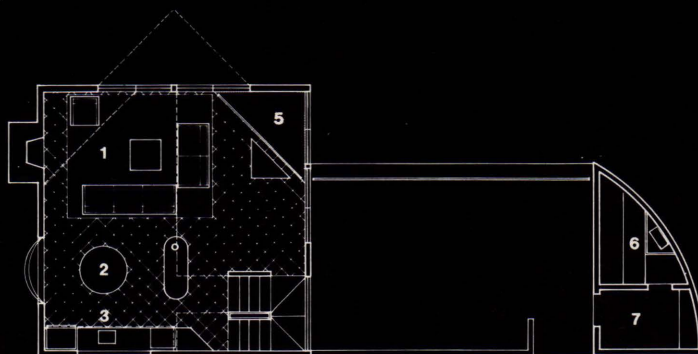
Averse to making of the three cabins an "extreme architectural statement," architect Abrahamson determined that for the sake of cost and convenience, they had to be built with readily available local materials, such as cedar siding, and by local craftsmen. Because the families planned to rent their cabins, they also had to be attractive to a wide range of people.

Bedrooms occupy the lower two levels, where the absence of south light is less important and the slope serves to block some of the weather's effects. In his own cabin (House #3), Abrahamson placed windows only on the east and south sides.

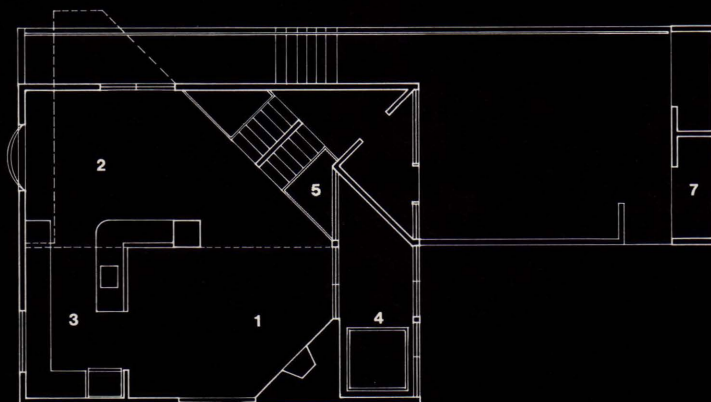
The main entry and living area is on the third level (see floor plan, right), on grade with the road. Each responds to the different family lifestyles with the same vocabulary of materials: Mexican quarry tile flooring; a round, north-facing window; white pipe railings; natural cedar ceilings; and a diagonal space open at least to the second and fourth levels. The floor plan of each is open, creating an appropriately informal arrangement of kitchen, sitting and dining areas. In summer weather, the south-facing deck becomes an extension of this main living area.

The cabins also have lofts accessible from the third level. Abrahamson's is the largest, extending over all but the entryway; each loft provides extra sleeping space or a day-time hideaway for children.

Though compactly aligned, each house enjoys an abundance of big sky and scenery

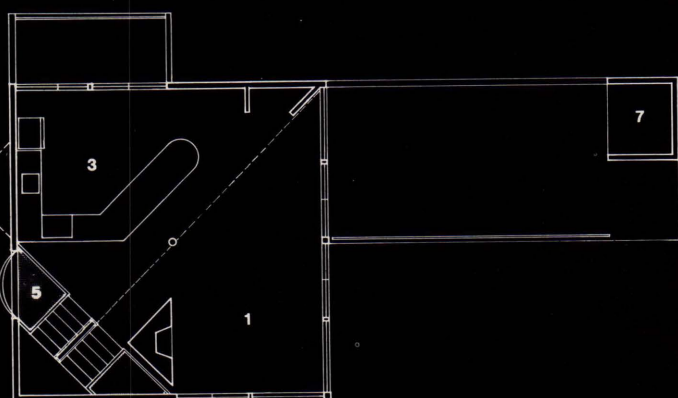


House Three

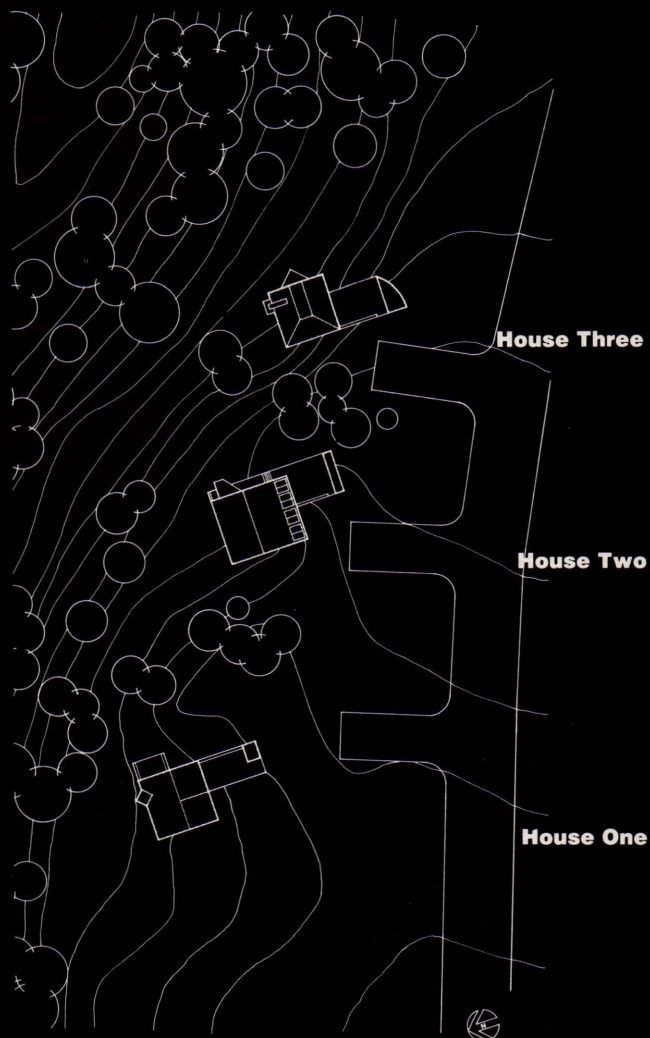


House Two

- 1. Living
- 2. Dining
- 3. Kitchen
- 4. Greenhouse/Jacuzzi
- 5. Open
- 6. Sauna
- 7. Storage



House One



SKI KEYSTONE

One of the most ambitious of Colorado's new resorts benefits from an elaborate community infrastructure

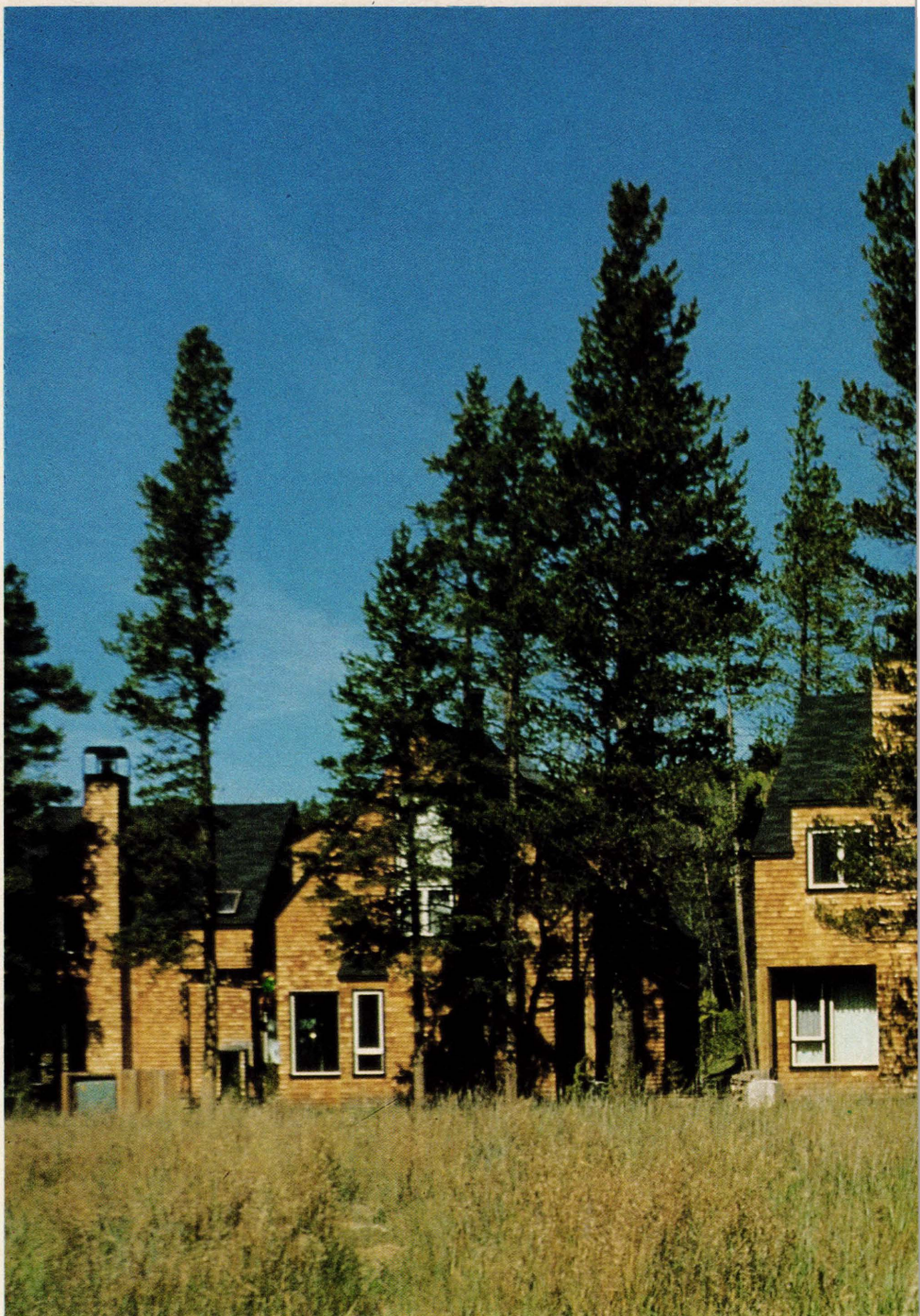
Keystone Corporation



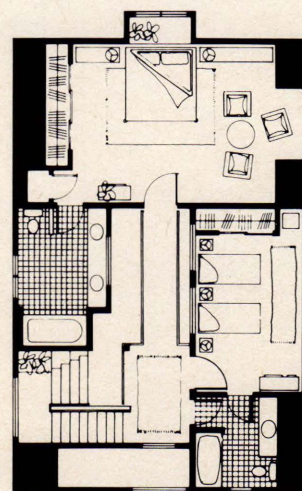
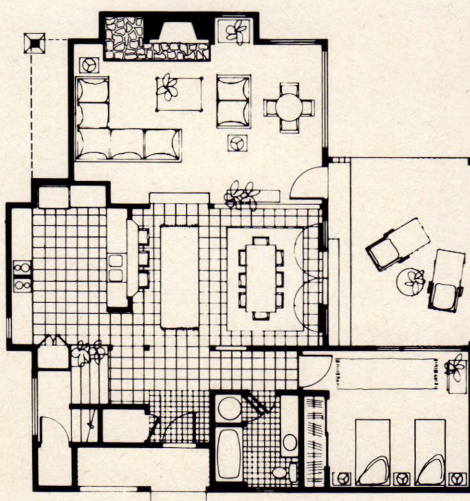
It is not often an architect has the opportunity to design, from sidewalks to city hall, an entire community. It is even less likely that such a commission calls for recreation and outdoor sports as its prime focus. Such a rare chance came in 1973 to Backen, Arrigoni & Ross, Inc., San Francisco architects for Keystone, an impressive new ski resort in the Arapahoe National Forest region of the Colorado Rockies. Developers for the resort, the Ralston Purina Company, acquired the heavily wooded 1,900 acre site and a privately owned and operated ski run on the property to make it a retreat for employees and a year-round resort for the public.

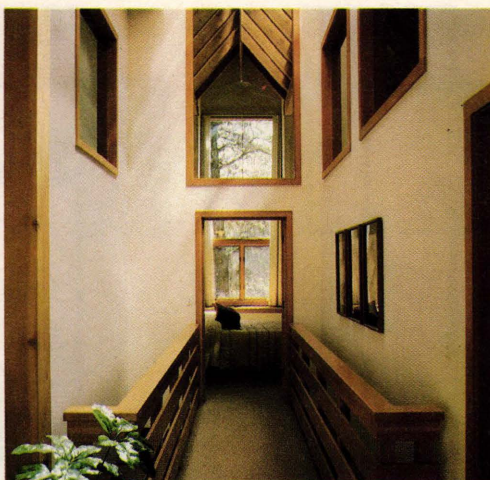
The idea was to provide additional recreational services and a variety of dwelling options for vacationers, ranging in scale from condominium apartments to single family cabins clustered in thematic enclaves. Working closely with the National Forest Service and the county, the architects outlined a ten year growth plan which included expansion of Keystone Village, the addition of a pedestrian mall and plaza, a lake, 15 restaurants and nightclubs, shops, tennis courts, a figure skating center and a 152-room hotel with a moderately sized conference center.

Not all of the buildings are designed by Backen, Arrigoni & Ross. The architects did, however, judiciously set design standards which produce the consistent architectural expression seen throughout the village as well as help individual designers take full advantage of this spectacular setting in an unobtrusive way.

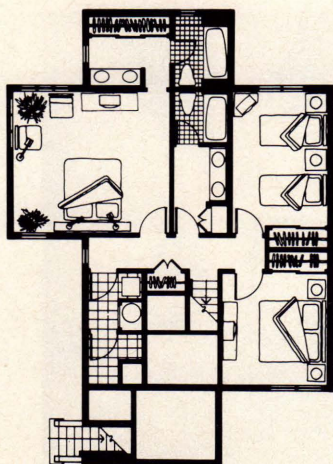


Howard J. Backen

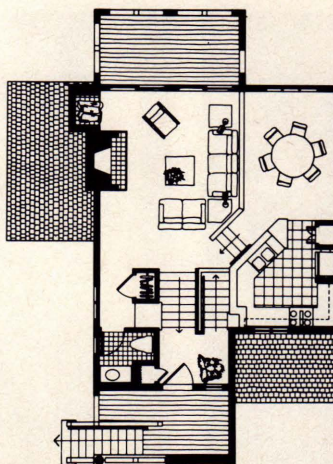




The Pines 10 condominiums (above) are just one cluster in a set of ten individually designed complexes in the Pines area of Keystone. Composed of two duplexes and two single story end units oriented south, these handsome apartments overlook the Continental Divide. The residences are two-story structures with large windows and, in good weather, sunny terraces. Interiors are warm and spacious with exposed wood framing, wood trim, and fireplaces (far left). Skylighted corridors on the upper levels (left), and modern kitchens on lower provide inviting spaces.



First Floor Plan



Second Floor Plan

Mountain enclave in the guise of a village

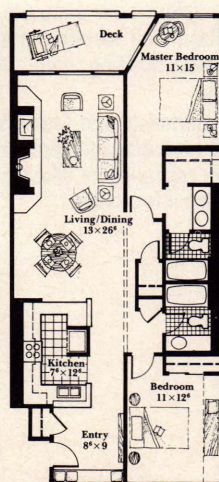
The layout of these trim one-to-three bedroom townhouses is reminiscent of a village street (above). Site constraints for the Soda Springs condominiums (the site sits astride a former power line easement) led the architect to step back each unit from the next in street fashion. This configuration allows clear views to all while still retaining privacy. Open plan interiors and high truss ceilings help contribute to a sense of spaciousness.



Nancy A. Melin



Howard J. Backen



Peace and quiet envelop these mountain condominiums

Standard units in the "Pines 5/6" condominiums feature open-ended floor plans that admit daylight deep into the main living spaces (above) making them quite pleasant in winter as well as summer. Each apartment has a fireplace and outdoor deck accessible from the living room and master bedroom. A covered walkway across the back of the building is formed by the pitched roof and connects each unit with the whole (left).

Minnesota's energy scientists test peat's commercial future

In the first city-wide application ever in Minnesota, the Department of Energy, Planning and Development is now running tests in the City of Virginia to determine feasibility of peat as an energy resource—especially as a boiler fuel in conventional installations. The past test burn will consist of a series of six performance experiments. Each will use a different mixture of coal and peat.

Acknowledging the fact that Minnesota is rich in peat, Assistant Commissioner of the Energy Division says, "There is great biomass potential here. It could mean growing local energy supplies and local industry in northern Minnesota."

Building industry expects renovation to top \$1 billion this year

Building renovation is identified as the new multi-billion dollar growth market for the construction industry in a white paper recently published by

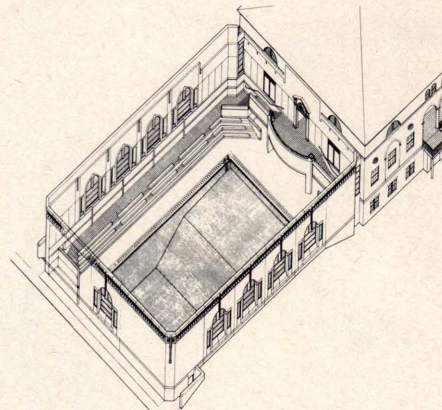
Sweet's Division of McGraw-Hill Information Systems Company. The report, titled "Renovation's Promise: Construction's New Growth Market," estimates that at least \$100 billion will be spent in 1982 in the renovation of residential, commercial and industrial buildings. Perry B. Sells, vice president of marketing for Sweet's, says building renovation now amounts to one-third of all construction dollars spent, about double the share of ten years ago.

... Meanwhile, Twin Cities building permits are up slightly

"It's amazing, hearing what a recession we're in, that the numbers are still up there," observed research planner Marlin Gilhousen of the Metropolitan Council. Gilhousen was referring to a Council report based on data from the U.S. Bureau of the Census that shows permits for construction in the Twin Cities area amounted to better than \$609 billion for the first six months of 1982. That figure represents a 1.2 percent increase over the same period for 1981.

The report indicates that after a big drop in 1981, multi-family housing construction "is back where it was in 1979 and 1980. Specifically permits in this category were \$55 million—a 100 percent jump over 1981. However,

single-family construction figures reflected the nationwide depression in the conventional housing industry; construction permits for single-family houses in the Twin Cities area for the first half of 1982 totaled \$183 million—down 12.8 percent.



New pool building at Macalester to blend old and new

Students at Macalester College in St. Paul will soon be diving into a new swimming pool whose surroundings testify to the architectural compatibility of new and old design concepts. Designed by the Leonard Parker Associates, Minneapolis, the pool struc-

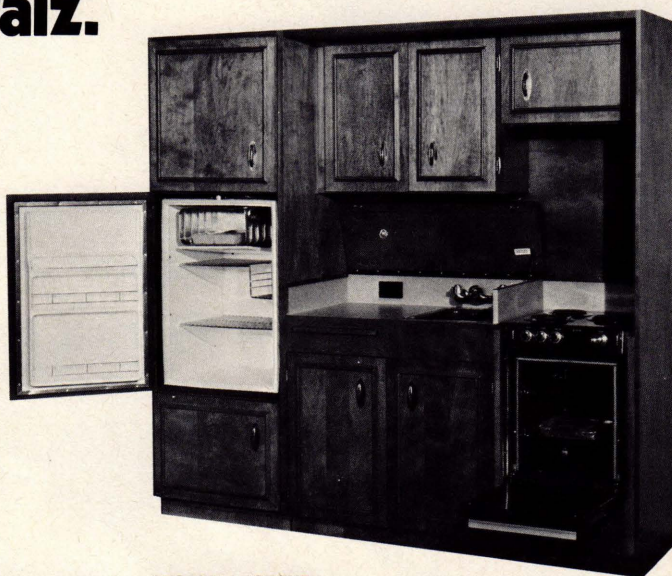
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ture will be attached to an existing physical education building, parts of which will be gutted (including the old pool) and renovated as part of the project. Project architect Martha Yunker says the college wanted a competition pool with a non-competition atmosphere since the school emphasizes classes and recreation over swim meets. Spectators will enter the pool building through the original front door to the physical education building and occupy the two rows of benches above the deck—rather than in a separate gallery, as in most competition pools.

The new and old buildings will be tied together visually through matching brick cladding, compatible window shapes, and a detail motif to be repeated in the plaster facia, window detailing, and interior concrete block and pool tile.

The physical link will include a shed roof skylight to bring natural light to the pool's spectator entrance.

Construction will be completed by spring.

E.H.

Editorial oversight

AM regrets that Charles Pohlmann did not receive credit in the October/November issue for his part in the design of Pronto Ristorante, Minneapolis.

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the design of **SITUATIONS**

Continued from page 43

precedent, practice, custom, and convention is broken by Habitat. This includes design, engineering, construction, trade union operation and the way people live. There have been two results. One was snowballing costs and technical problems. The other is a significant and stunning exercise in experimental housing ..."

What was most important and striking about the Habitat concept was the astonishing variety growing out of technological standardization. Standardization connotes uniformity and the sacrifice of privacy. Safdie's vision was to see that contemporary prefabrication techniques were not only compatible with old world charm, they were the means of achieving it at large scale. The staggered units use each other as Mediterranean communities use cliffs. Each of them was conceived as a totally prefabricated concrete unit manufactured and fitted with prefabricated fiberglass bathrooms and an energy core, on site, then lifted into place. The project was to be massive, low cost, and assembled with the ease we have come to expect of mass manufacturing techniques. Instead it was

fairly small, very expensive, and was bogged down in a process combining bureaucracy (federal, provincial, and Expo), handcraft, and show business scheduling. Nevertheless, it works and it tells us things.

America was promises," said Archibald MacLeish. But promises can be broken. To the designers of the nation, America was possibilities. The Declaration of Independence carefully eschewed the promise of happiness, providing only for its pursuit. The framers, ahead of their time in design as in everything else, were concerned with process rather than with end product. Their designs were truly anticipatory, at once describing possibilities and protecting them.

If America is to keep the promises made of it in the eighteenth century, it is necessary to drastically redesign our domestic situation. No one seriously questions that. Economic experts cannot agree on how to design the nation out of an inflation and a depression simultaneously, but they all agree that it must be done.

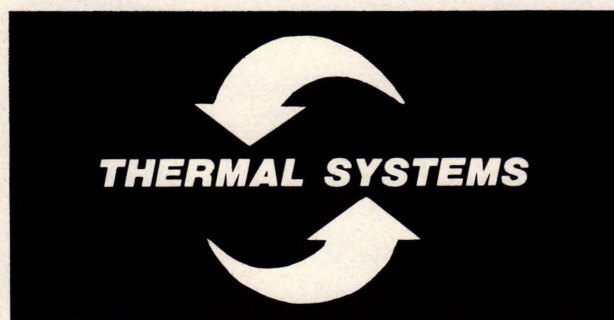
Curiously, this is where we came in. Industrial design in America emerged in part as an answer to the question, "How do we get the economy moving again?" The answer appeared to be

products that were new, or that looked new, or that were better, or that looked better. It wasn't such a bad answer then, but it isn't a very good one now. What needs to be designed now is the dynamics of the system, not just the shiny objects that roll off the end of it.

Are designers equal to the task? Of course they aren't; but they could be. Professional designers are almost always better than the products they design. Younger designers in particular wish to do something more socially useful than flooding the world with more or even better, washing machines. Situation design is the most promising avenue to the kind of significance that many designers aspire to and many others claim to have attained.

Designers are trained in the spatial organization of matter. Is that any reason to suppose they can deal with the human situations that defy Formica, curtainwall construction, universal joints, and even the typeface Helvetica?

Well, some of them can. Designers are hardly the chosen people, but they are qualified at least by default: everyone else is even worse equipped for designing situations than designers are. Social scientists know more, but have difficulty in making things work. Politicians get things done, but the things



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they get done are shaped by their desire to stay in office. Artists have more daring social visions, but it is hard to check out their validity in time to act. The designer is in respect to the world a paradigm of the human being in respect to civilization. That is, human beings are less well suited to any particular environment than most of the other animals that live in it. But as a result of belonging no place, we can live almost anywhere, including environments where other animals cannot live. Because designers are not especially trained for any field in particular, they can operate in a great many fields, and this adaptability is crucial.

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 men, 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. Nothing could be further from the truth. 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).

Ralph Caplan is a writer, critic and board member of the International Design Conference at Aspen.

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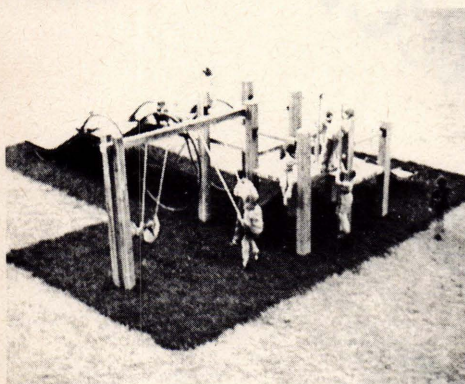


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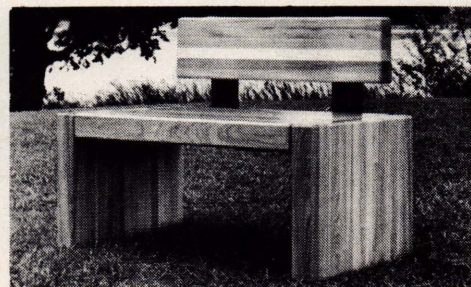
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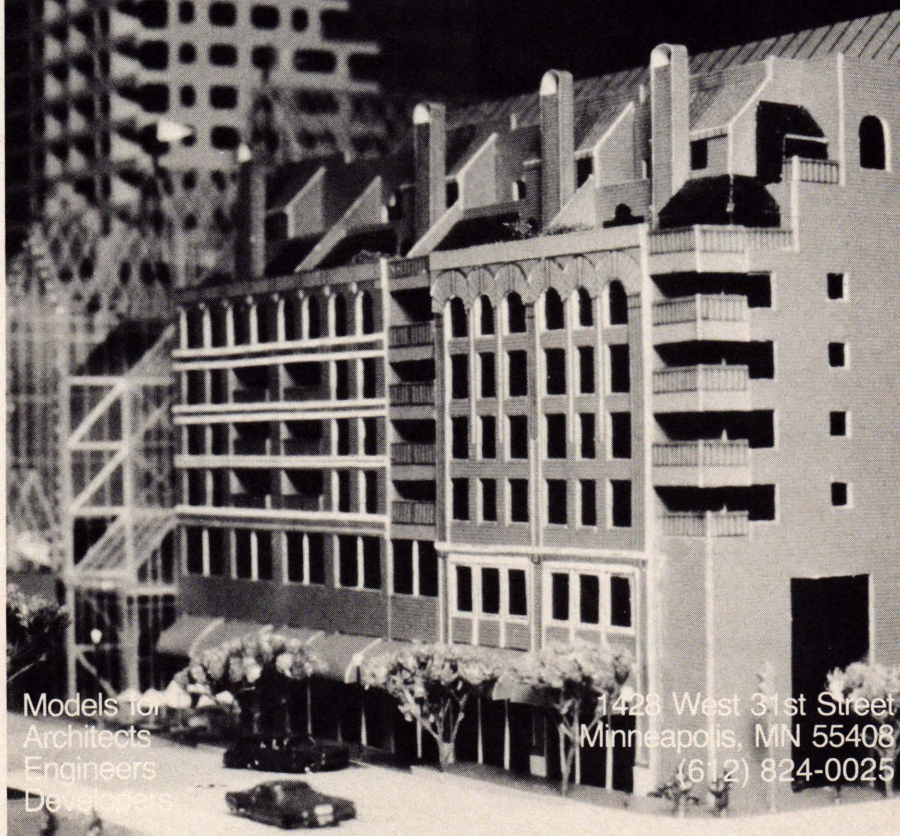
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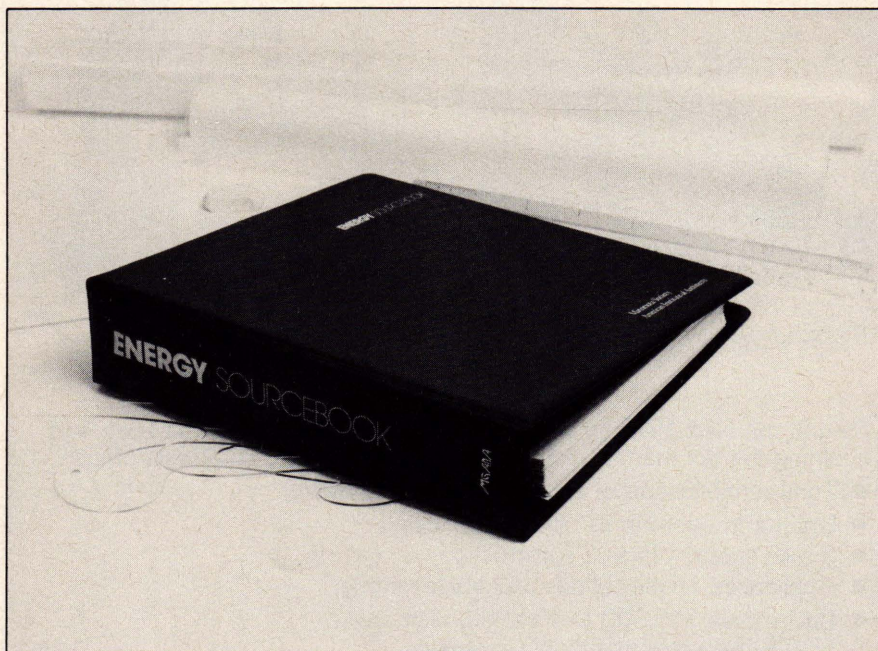
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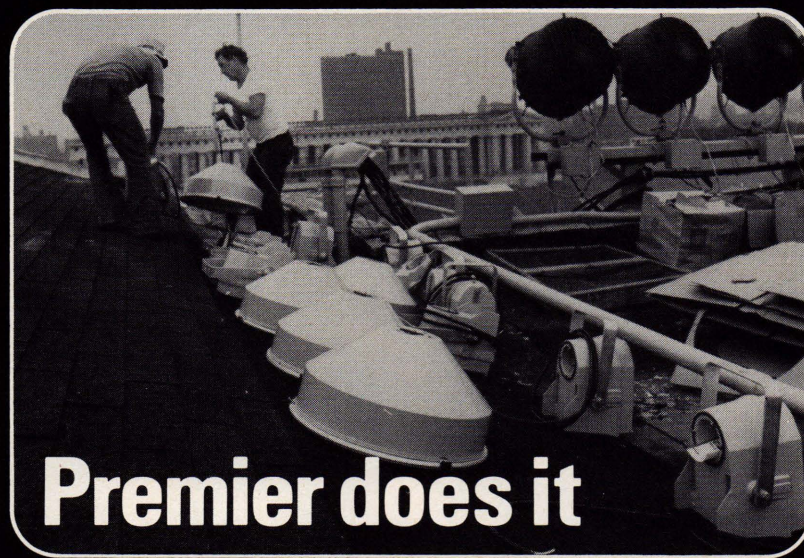


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