rogressive Architecture

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vecchio in Verona. Photography: Giuseppe Davanzo.

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(1)

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Competition contention 1

Today's heightened interest in competitions as a means of selecting architects is set against a background of wide disagreement as to their value and applicability. In the absence of AIAimposed rules, a variety of modified competitions some mislabeled—is proliferating. This editorial is the first of a series on various aspects of this contention-riddled subject. In the past year, several major competitions have generated spirited discussion among U.S. architects. Among recent contests involving well-known American architects, the profession has reacted to three decisions in particular: the choice of the Michael Graves scheme for the Public Service Building in Portland, Or (P/A, May 1980, p. 25); the award of the Bunker Hill development in Los Angeles to a team featuring Arthur Erickson (P/A, Sept. 1980, p. 42); the selection of the Mitchell Giurgola Thorp design for the Australian Parliament House in Canberra (P/A, March 1981, p. 88).

Of these three decisions, only one was the product of a genuine juried design competition. For Canberra only were the architects chosen by professional jurors, strictly on the basis of design. For Portland, the choice was among architect/contractor/consultant teams; architect judges played a consultant role to a citizen jury and even that jury's decision was subject to city council review. For Los Angeles, the contest was among developers, who had chosen architect collaborators-just as they had chosen accountants-to arrive at convincing physical and economic proposals. Much of the debate over the Portland and Los Angeles contests indicates that these circumstances are not widely understood among concerned observers.

While clients and architects in America have been showing increasing enthusiasm for design competitions over the past couple of years, confusion about competitions has been deepening. Behind this paradox are several interrelated developments:

AIA mandatory rules for competitions had to be abandoned in 1973 under pressure from the U.S. Department of Justice. The widely respected old rules were reissued as guidelines in 1976, but AIA's role became unclear once its approval became unnecessary. In 1980, after gaining National Endowment for the Arts support, AIA began operating a competitions advisory service and developing a new handbook on the subject, which is going through final approvals this spring.

National Endowment for the Arts has endorsed competitions as devices for improving Federal architecture and has encouraged cultural institutions nationwide to stage competitions for their facilities. NEA has spearheaded—and financially aided—innovative competition procedures, in particular the on-site "charrette" competition that combines elements of participatory design with a juried decision.

Federal support for competitions has taken hold on Capitol Hill, where the Moynihan Bill, which died in a Senate-House stalemate at the end of the last session, came back to life as the Stafford Bill. This Senate bill would place the majority of Federal activities in government-owned buildings that meet certain standards (reducing dependence on leased space of inconsistent quality) and mandate limited competitions for a certain portion of those buildings. Specifics on proportion and types of projects subject to competitions—or on competition procedures —remain to be worked out on Capitol Hill.

"Level Three" competitions conducted by the General Services Administration were initiated in 1974, following scandals over award of Federal building contracts. These require an invitation for submissions, a narrowing of the field through credentials review and interview (typically to three contenders), then a design competition. Selection of winners by agency staff members—must be confirmed by successful negotiations on cost.

AIA's position on Federal competitions has up to now been substantially negative, at least in its public testimony. AIA has joined other building professionals represented by COFPAES (Committee on Federal Procurement of Architectural/Engineering Services) in defending the award of Federal commissions on the basis of credentials and interviews. These procedures, embodied in the Brooks Bill (Public Law 92-582) represent a hard-won victory in the early 1970s over the threat of selection through competitive bidding on fees.

Unorthodox types of competitions have been developing and spreading. The charrette type promoted by NEA and the Level Three type used by GSA were noted above. Another common type today descends from the RFP's (requests for proposal) that have been issued for decades for urban redevelopment or other government-supported projects; to the traditional RFP process, in which unnamed bureaucrats do the choosing, have been added wider publicity for invitations and results, the presence of big name jurors-in some capacity-and prominent use of the word "competition." Corporate clients have now begun to adopt this model, usually dispensing with the outside juror, relying on in-house professionals and vice presidents who know what they like. For a small additional cost, the client gets to inspect a variety of goods before settling on a supplier; all that is missing for participants in these "competitions" is any assurance of fairness or informed judgment.

More next month on design competitions.

Cohn Maris Difa



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Views

Police headquarters reuse

In the News Report section of the March, 1981 edition of *Progressive Architecture* there appeared an article describing the status of the Old Police Headquarters Building in Little Italy, New York City.

The article was inaccurate and misleading in respect to 3 issues:

1 The Department of General Services only gave a conditional approval to the hotel developer based on their supplying commitments on their financial package.

2 No variance during the Request for Proposals (RFP) process occurred. We are anxious to hear of any of the alleged confusion or "unfair midstream changes." 3 The Community Board reviewed

the land-use implications on the property, and gave its recommendations to the Board of Estimate prior to the "Request For Proposals" being issued. The RFP was based on these recommendations. We then distributed a 6-page synopsis of the final proposals to the Community Board (as well as a full presentation to the Community Board's Zoning Committee) in order to keep them informed and to reconfirm their land use recommendations. But all members of the Board of Estimate receive all the documents in order to analyze the total merits of each proposal.

Therefore, we believe those who will make a final judgment on the plans have received all the documentation necessary to make a sound judgment. *Richard Landman, Director Real Estate Development City of New York*

Dick and Jane look at buildings

Bravo, Bravo, Bravo! I would like to thank P/A for giving Olsen-Lytle Architects a Research Award in the 28th P/A Awards for their work in children's education. I am relieved to find out that people are noticing the efforts to make children more aware of the world around them.

Today at schools, in our fast-paced society, children tend only to learn and not to think. But there are many things that simply cannot be learned only through textbooks and grades and must also be experienced. Unfortunately, most schools don't stress this, and the arts, including architecture, are virtually ignored for other more material glories. A new Public-Address System for the school is in the budget, but a trip down the block to see a "dumb old building" is out of the budget.

This is where books like *Historic Pres*ervation Education by Olsen-Lytle come in. They are very useful for opening up children's minds and increasing their visual awareness. By seeing and feeling architecture, children can get a taste of the "real world." And this can motivate children into thinking. Maybe next time on their way to school, they *will* notice the ornate railings at the old subway stop, or even the color of the gate at their school. And then maybe when they are all grown up, and have jobs as corporate executives, janitors, architects, etc., and have to make decisions, they will continue to notice, and actually see people instead of taking them for granted. John Czarnecki

John Czarnecki Student Rochester, NY



Joseph Littlefield house, Cambridge, Ma.

Award-winner vs existing buildings

The recent award by the editors of Progressive Architecture to a design by Larry I. Mitnick and David P. Handlin for Harvard Faculty Housing (P/A, Jan. 1981, p. 146) is an appalling misuse of the power of Progressive Architecture to promote sensitive change in our cities. The project which you commend so highly will cause the destruction of four 19th-century houses, two of which are architecturally distinguished. I consider it irresponsible that the judges did not consider the existing buildings on the site, nor evaluate the impact of the project on the community except in the narrowest architectural sense. Clearly, your awards are intended to honor the work of architects, not to judge the actions of the client; but the project's impact should not be ignored, nor should architects escape all responsibility for the effects of their projects.

The two houses at issue were built in 1873 by a local builder-architect, Joseph Littlefield, and both are in the late Mansard style. The house at 16 Prescott Street has been nominated to the National Register of Historic Places in recognition of its importance as "one of the finest examples of the Mansard style in Cambridge." It was the builder's own house, and its lavish detailing survives intact, as shown in the accompanying photograph. Destruction of this and the accompanying houses for a condominium, no matter how architecturally distinguished, is not an acceptable tradeoff for this community.

I hope that in the future your criteria

for awards will be revised to include the impact of designs on the existing site, so that the very considerable prestige they bring to a project will not obscure its impact on a community. Charles M. Sullivan Executive Director Cambridge Historical Commission Cambridge, Ma

[The award in question was determined by an independent jury, not our editors, and is for the entrant's proposal, not attendant circumstances. The requirement of information on the broader impact of each project is worth considering, but would introduce concerns often beyond the entrant's control. Nomination to the National Register is a strategy that, unfortunately, is no guarantee of quality, but the photo suggests that even among the architectural riches of Cambridge—this house cannot easily be written off.—Editors]

Draft choice

Much as I appreciate the high standards of your writers and photographers I am often confused and frustrated by the poor documentation through drawings of many architectural projects you choose to publish. Much of the text and some of the photos could certainly be replaced by the language architects understand best: detailed plans, sections and elevations. How about it, *Progressive Architecture? Curtis R. Fremond*

Architect AIA New York, NY

Credit correction

Architects for the Wainwright State Office Complex, St. Louis, Mo (P/A News Report, Nov. 1980, p. 76) were Hastings & Chivetta, Mitchell/Giurgola. Team Four was programmer and interior designer.

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BALI IS BLIND IMAGINATION.

PA News report

Chicago: Show city

In the area of architectural drawing exhibits, Chicago's "Second City" nickname is proving inappropriate. Following last year's successful "Late Entries to the Tribune Tower Competition," the showing and selling of architectural drawings and models has become a minor growth industry in the city of "Build, don't talk."

New work

Among the first to jump on the bandwagon was Marilyn Hasbrouck, owner of the largest architectural bookstore in the U.S., The Prairie Avenue Bookshop. Mrs. Hasbrouck had been selling drawings for some time, but decided to formalize the situation by holding exhibits in her store of work by young Chicago architects, and documenting the exhibits with catalogs.

Rhona Hoffman, who curated the original "Late Entries" show (with Staney Tigerman and Stuart Cohen), has been bringing the work of a number of the "Late Entrants" to her gallery, Young-Hoffman. Hoffman and her partner Donald Young have taken the stance that architectural drawings and models are part of a process, and not an end in themselves. The exhibits have ranged, for example, from Helmut ahn's large collages, made up of many iny sketches, to extremely slick presenation models from Jahn's office. Fullcale furniture mock-ups by Tod Wiliams & Billie Tsien, original working drawings by Stanley Tigerman, prints of working drawings by Thomas Beeby, lozens of yellow-trace studies by Taft Architects, and a half-dozen chipboard nodels from Robert A.M. Stern show he wide range of architectural exploraion and presentation methods. Perhaps he most novel are Taft Architects' eramic tile "drawings," displaying that irm's continuing interest in color and lecoration. More predictable, but cerainly worth mentioning, are George Ranalli's lovely colored-pencil studies, Beeby's lush, Expressionist spraybigment renderings, and Stern's penind-ink interior vignettes, revivals of E. Eldon Deane's renderings of Shingle-Style houses in the American Architect and luilding News of the 1880s.

The most ambitious but least satisfyng of the exhibits of "new" work was he large, poorly edited "Chicago Ar-



P.B. Wight drawing, Central Stairwell, National Academy of Design, New York.

chitectural Drawing" show at the Frumkin-Struve Gallery. Although some beautiful drawings were presented, and a number of interesting architectural ideas expressed, few of the pieces on display exhibited both qualities at the same time. Michael Pado's 10-ft-long yellow-trace site section had only its sheer size to recommend it, while Helmut Jahn's silk-screens on plexiglass lacked the personal touch evident in his Young-Hoffman pieces. Stanley Tigerman's cartoons provided an interesting insight into the man's sense of humor, but would have been more powerful had they reflected the stream of consciousness revealed in his early design sketches. Only Ken Schroeder's "Starry, Starry Night" and Anders Nereim's house study seemed to merge technique with content.

Retrospectives

Several "retrospective" exhibits also appeared at local gallerys in the past months. John Hejduk's first exhibit in Chicago in 15 years (at the Renaissance Society of the University of Chicago) provided an in-depth look at the man who made an architectural practice out of drawing, and who, in the process, helped unleash the current wave of drawing exhibits. The retrospective included examples from all phases of Hejduk's career, from the abstraction and hermeticism of his early house studies to the story-telling of his Venice projects. Exhibited here for the first time was his latest project, "Masque #3: Retreat House," a stunning departure from Hejduk's recent work. The retreat house "Masque" exhibits a concern for structure and detail that has not been evident in Hejduk's work since the "Texas" house studies of the 1950s and 1960s.

Paul Amatuzzo, a former student of Hejduk's now teaching at the University of Kentucky, had his work exhibited at the Zolla-Lieberman Gallery. His early explorations were variations on Hejduk themes ("wall" houses, "element" houses, "spine" houses) and rendered in the Hejduk manner (axonometrics using only white, red, yellow, blue, and black). His later projects, generally executed as tiny models, begin to explore biomorphic forms and highly contained volumes, and his very recent work, drawn in clearly legible axonometric, shows an increasing concern for archetypal house images.

The work of Gianni Veneziano, a young Florentine who recently arrived in Chicago, is showing at the Phyllis Needlman Gallery. "House of Memory' is a particularly haunting piece. With images of Rossi and De Chirico in the background, it is a study in alienation and in comfort, the surrealistic serenity one finds in dreams. Some of his later drawings and paintings, less powerful, relate to Chicago "Imagist" painting.



Architectural heritage

Chicago's rich architectural heritage is also receiving considerable recognition. A major and very successful exhibition the Chicago Historical Society, at "Holabird & Roche and Holabird & Root: The First Two Generations," cel-ebrates that firm's 100th birthday. The show includes studies, sketches, working drawings, renderings, and photographs of completed buildings. Although Holabird & Root are best known for their early high-rise commercial structures and their late 1920s Art Deco/ Moderne buildings, a number of rarely seen residential projects are included in the show, which has been extended into May

The Art Institute of Chicago has mounted two exhibits, more narrowly focused but as commendable as the larger retrospective shows. One, "Architecture in Context: 360 North Michigan Avenue," is a single-building exhibit. Alfred Alschuler's London Guarantee and Accident Company (now Stone Container) Building, a structure which admirably fills its non-orthogonal site, is

1 Gianni Veneziano's House of Memory. 2 Kenneth Schroeder's Starry, Starry Night at the Mergenthaler, 1980. 3 Stanley Tigerman's Cartoon, 1980. 4 Robert A.M. Stern's Residence at Farm Neck. 5 John Hejduk's House for the Inhabitant who Refused to Participate.

5

shown in drawings and photographs. The other one exhibits P.B. Wight's beautiful colored drawings, which have been locked away in the archives of the Burnham Library for over 60 years, and are finally receiving their long overdue attention.

There appears to be no end in sight for the parade of architectural ideas on paper showing in Chicago. With drawings such as P.B. Wight's now available for examination, contemporary draw-ings may move beyond their present high standards, to achieve a richness worthy of their obviously eager audience. [David Greenspan] [News report continued on page 27]





Victoria Station Restaurant, Fairfax, VA., Architect: Donald K. Olsen, Sausalito, CA., Installation: Krupnick Bros., Glen Burnie, MD.

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St. Louis Phase 2: Flad and Associates, Madison and Milwaukee, Wis.; Gainesville, Fla. *General Contractor:* Findorff-Hutter, "Joint Venture," Madison. *Dover Elevators installed by:* Northwestern Elevator Co., Milwaukee.

DOVER[®] The elevator

expediters.

News report continued from page 22

L.A. by L.A.

By the time a city celebrates its 200th birthday, it ought to be ready to take tock of its architectural heritage. But if recent exhibition at the Barnsdall Park Municipal Arts Gallery is any indication, los Angeles' own architectural selfdentity has not matured beyond visions of freeways and palm trees.

There are few other cities that can offer Los Angeles' range of aesthetic experiences, with its variety of landcape, climate zones, and architectural tyles. There are even fewer cities that have been treated to such regular but uperficial architectural appraisals as has Los Angeles, appraisals that merely perpetuate stereotypes.

Some of these shortcomings were oresent in the bicentennial "L.A. by ...A." show initiated by former Los Angeles AIA executive director Debrah Feldman and administered by rants and information impresario Richard Saul Wurman. The show, unded by the National Endowment for he Arts, the California Arts Council and the Los Angeles Chapter of the AIA, was divided into five tenuously reated segments, which shared the same pace, but had little else in common.

Four of these segments, "Fantasy/ /isionary," "Private," "Public," and Landscape," explored sub-topics of the werall theme, "Unique Aspects of ..A.'s Built Environment."

The four separate exhibits were grouped along a "street," with a doorvay framing each entrance (an idea opied from the Venice Biennale of 980); and the fifth section displayed nodels and drawings, entries in the ompetition held for the doorways' deign.

he doorways

"he most successful doorway, Adams & 'olante's design for the entrance to the Private" exhibit, was a three-dinensional collage of building fragments epresenting Southern California's veracular and high art traditions, from Vright's concrete block structures, to ames's elegant houses, to the humble ungalow with a bottle of Joy in the itchen window. Hans R. Hert provided green backdrop of Astroturf, palm ee, and lawn sprinkler for the en-ance to the "Landscape" exhibit. The antasy/Visionary exhibit was entered rough the grille section of a gigantic, ntique Rolls Royce façade, an idea by ian A. Nicolau. John William Johnon's doorway to the "Public" exhibit ilized the freeway imagery found in any of the entries.

he "Private" segment

he most successful of the four segents was the "Private" exhibit, curated by Stefanos Polyzoides, James Tice, nd K. Paul Zygas, who interpreted private" to mean the single-family puse—an appropriate choice for





trated on modern houses, that category

of Southern California architecture

which has most fascinated critics and

least fascinated the local public. Unfor-

tunately, the slides included very few vernacular or period revival designs.

Narration to identify the subjects (many

The "Fantasy/Visionary" segment The "Fantasy/Visionary" exhibit, cu-

rated by Michael Franklin Ross and

Barbara Goldstein, also used models

unfamiliar) was sadly missing.

Photos: Tim Street-Porter

Southern California—and explored the subject through models (of which there were too many) and slides. While the models covered a range of styles, the slide show by Julius Shulman concen-

down Sunset Boulevard, it featured a floor covered with black Astroturf with a central double yellow line. The "Boulevard" was lined on either side with ten models of visionary projects, including Cesar Pelli's UN headquarters megastructure and Eric Moss's Pinball house. Large silhouettes of the city's skyline and of the Santa Monica mountains formed a billboard collage background. The slide show presented a conventional view of Southern California's taste for the unconventional, focusing on kitsch, visions of the future, movie sets, and exotic borrowings from other cultures.

[News report continued on page 30]

27



OWENS-CORNING 10th ANNUAL ENERGY ENERGY CONSERVATION AWARDS THE AWARD Coveted by American Corning architects and engineers, the Owens those men architects and engine Award honors those men Energy Conservation Award honors those men architects and engineers, the Owens Corning Energy Conservation Award honors those men and women whose energy saving buildings Energy Conservation Award nonors those me and women whose energy-saving buildings and mechanical systems are contributing to and women whose energy-saving buildings and mechanical systems are contributing to this country's energy independence and mechanical systems are contributing to this country's energy independence. We're looking for creativity and originality this country senergy independence. looking for creativity and originality. WHO CAN ENTER Registered architects or **WHU CAN ENTER** Registered architect professional engineers practicing in the United States can enter as individuals of professional engineers practicing in the United States can enter as individuals or in United The building entry must be a commis-teams. The building design stage, under signed project-in the design stage. teams. Ine puilding entry must be a comm sioned project-in the design stage, under construction or completed THE JURY Respected professionals in the fielde of architecture and engineering will **THE JURY** Respected protessionals in the fields of architecture and engineering will fields the entries judge the entries HOW TO ENTER The entry package has all HOW TO ENTER Mary G Reinholt Denart-HOW TO ENTER The entry Package has all the details. Write Mary G. Reinbolt, Corp., the details. Write Corning Fiberglas Or call ment 123, Tower, Toledo, Ohio 43659. Oeived riberglas Tower, Toledo, Entries must be received Fiberglas 248-8053. Entries must be received her at (419) 248-8053. Fiberglas Tower, Toledo, Ohio 43659. Or call her at (419) 248-8053. Entries must be received her at (419) August 28. 1981. no later than August 28, 1981. Circle No. 395 on Reader Service Card

The "Landscape" segment The "Landscape" show, curated by Emmet L. Wemple and David Meckel, presented familiar facts about Southern California in a bland and unfocused fashion. It included photography of immigrants and early settlers, but failed to evoke the scent of the chaparral and the rustle of eucalyptus leaves.

The "Public" segment The "Public" exhibit

exhibit, Marvin by Malecha, Dane Krogman, and Michael McCarthy, received unanimous critical condemnation. Its sole asset, a large composite photo map of the Los Angeles basin, conveyed a sense of the vastness and complexity of the region that few other displays could equal. But its photographs of random pedestrians, street scenes, and freeways were repetitive; its display of major corporate buildings, mediocre in design, was appalling, as it did not distinguish between publicly beneficial buildings, and publicly apathetic ones. And its garish, awkwardly painted mural of an angel shot down into the ocean seemed a tasteless joke in a city caught up in a wave of violent crime.

There was no catalog for "L.A. by L.A.," but essays by the curators and by John Pastier and Esther McCoy have been collected. McCoy's article details the development of one small piece of Los Angeles turf, the Veteran's Administration Hospital. Pastier's essay argues that Los Angeles is no longer the youthful golden city of tomorrow; it has the same deteriorating inner-city housing stock, minority population, governmental problems, and crime as older American cities such as New York, and must begin dealing seriously with them. Los Angelenos should not have to wait until the Tricentennial to see a show that ad-dresses these concerns. [John Chase]

John Chase is currently writing on architecture in Los Angeles.

Noguchi's Miami bayfront park

"A garden is a sculpture into which people go," says Isamu Noguchi, who is, according to some, more a sculptor than a landscape architect. Noguchi has now designed a bayfront park in Downtown Miami, and in doing so has aimed to conceive an inspirational community space.

Miami's major asset is the scenic beauty of its bayfront. Having spent \$12 million on the infamous, unsafe Bicentennial Park, Miami has a second chance to make its waterfront accessible to the thousands of present downtown office workers and shoppers, and to the 200,000 workers and dwellers who will



Noguchi's Miami Bayfront Park model.

occupy its planned 50- and possibly 70story towers. These towers, containing condominiums, offices, and hotels, will ring the open oasis of the park, whose completion is scheduled in 1985.

A 2000-seat amphitheater, set on axis with Flagler Street, Downtown Miami's major thoroughfare, will accommodate daytime and nighttime events: mime, music, dance, and perhaps historic pageants. There will be two fountains. One, a spectacular foaming salt water cascade, will rise 150 ft. The other, a stainless steel, perpetually misting formal fountain, will provide an entrance into the park from the Miami Center complex, a \$217-million group of hotels, condominiums, and office towers now under construction.

Noguchi wants to avoid concrete, and he designed planted earth berms to flank the amphitheater, hiding parking and café service facilities from view. There will also be a children's playground with equipment conceived by Noguchi.

Private money is being sought for the construction of the fountains, and state, county, and federal government agencies are being tapped for funding. Of the \$10-million price tag, the City of Miami hopes to pay only \$2 million.

The city has been divided for some time with regard to the ultimate disposition of the bayfront land. The portion designed by Noguchi is but 40 of a total 200 acres bordering Biscayne Bay. At present, there is one missing piece that is embroiled in political and development pressure, but resolution seems imminent. Soon, then, Miami will have a waterfront vista along its entire downtown.

The 1.1-mile urban waterfront strip is to extend through the heart of Downtown Miami, around the corner of Miami Center, and into the planned Miami River walkway system. Giant rock boulders (riprap) will ease the bay to the edge of the park, and finger piers will provide access over the boulders to the bay. Bayfront Park will be an important

link between the existing auditorium, the troubled Bicentennial Park, Miami Center, and Miami River.

The Downtown Development Authority is responsible for much of the planning of the Bayfront Park Redevelopment Project. The DDA proposed that a planned monorail station be relocated from the west (city side) of Biscavne Boulevard to the east, or bay side thereby opening the park to 40,000 daily riders, who will have a Disney-like monorail panavision of the park, its fountains, its productions, and the bay itself. The transit system will also ensure security for park users, by exposing the entire park system to view.

The Noguchi design plan will be im plemented in phases, with total comple tion expected to take three to four years

At present, Noguchi is under contrac to produce working drawings for the two fountains, and the Corps of En gineers is moving ahead with work or the Baywalk portion. The decision to re locate the "People Mover" station to the bay side is imminent. A grant has been submitted to the state for the funding o the children's play area, and the city ha provided funds to complete construc tion drawings for the rest of the park. [Edward D. Levinson]

Edward D. Levinson is a professor of archi tecture at the University of Miami.

A.C.S.A. annual meeting

A record crowd attended the 69th An nual Meeting of the Association of Col legiate Schools of Architecture, held thi year at Asilomar, Ca, March 22-25. Thi year's urgent theme of "teaching arch tecture," as well as the beautiful Califor nia beach, drew 350 registrants, a quar ter of whom also participated in th related workshops.

[News report continued on page 32]



The exterior of this striking home designed by Walt Bazemore is made entirely of cypress and stained with Rez Oil Type Semi-Transparent Wood Stain. A variety of *Pittsburgh®* Paints were also used throughout the interior.

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In his keynote address, Lawrence Anderson noted that the 19th-Century professions were composed of gentlemen who served their social peers in a personalized context that bred mutual trust. In this century, the change in clientele, the constraints of the investment climate, increased community accountability, and new building technology have created decision-making teams that often harbor mutual suspicion. Many skills once commanded by architects now are lodged in other brains. Not only is there no consensus on what architectural education is, but it is not clear what society expects of designers. Anderson ended with a reminder that the good professional is also the good citizen.

Introducing Monday's theme session, coordinators Mary Comerio and Jean-Pierre Protzen (University of California at Berkeley) observed that architecture is a shrinking field. In an effort to reverse this trend, Jacqueline Vischer of Vischer Skaburskis Planners in Vancouver, B.C., described a new two-year, post-professional design program for the University of British Columbia that will update the practitioner's skills through courses in rational-conceptual model making, research, and new technologies.

Monday's workshops, chaired by Ed Wallace (University of Texas), Howard Friedman (U.C. Berkeley) and George Anselevicius (SUNY Buffalo) addressed teaching methods and ways of learning through experience. Tuesday's workshops, chaired by Hayden May (Miami University), Rory Fonseca (University of Manitoba), and Jacqueline Vischer (Vancouver), dealt with values in teaching, the role of theoretical knowledge, and curriculum design.

Panel workshops, coordinated by Bill McMinn (Mississippi State), discussed "Educating for a Barrier-Free Envi-ronment," "The Beginning Student," "Teaching Energy Issues," and "Research in Education," topics requested by faculty in the U.S. and Canada.

The proceedings of the conference will be edited by Jean-Pierre Protzen and Mary Comerio and will be published.

At the Annual Awards Banquet, the last formal event before Wednesday's business session and adjournment, Harlan McClure (Clemson) presented the Tau Sigma Delta Gold Medal for Distinction in Design to Charles W. Moore; and R. Randall Vosbeck (AIA) and Richard C. Peters (ACSA) presented the 6th AIA/ACSA Award for Excellence in Architectural Education, honoring Marcel Breuer. The speaker for this award was Pietro Belluschi, FAIA; Edward Larrabee Barnes accepted the award for Breuer. [Sally Woodbridge]



AIA Honor Awards

Eight current use projects and seven extended use projects will be presented with AIA's 1981 Honor Awards at the AIA National Convention in Minneapolis and St. Paul, May 17-21.

Award-winning current use projects, designed and completed within the past seven years, are:

A residence for Norman Gaffney, Coatesville, Pa, by Bohlin Powell Larkin Cywinski, Architects/Planners/Engineers, Wilkes-Barre, Pa, Pittsburgh, and Philadelphia;

Ramsey County Adult Detention Center, St. Paul, Mn, by Gruzen & Partners, New York, and The Wold Association, Inc., St. Paul, Mn;

National Permanent Building, Washington, DC, by Hartman-Cox Architects, Washington, DC (P/A, Dec. 1977, p. 54);

Thorncrown Chapel, Eureka Springs, Ar, by Fay Jones & Associates Architects, Fayetteville, Ar;

East Building, National Gallery of Art, Washington, DC, by I.M. Pei & Partners, New York (P/A, Oct. 1978);

St. Mary's Gardens, Oakland, Ca, by Peters, Clayberg & Caulfield, San Francisco, Ca;





1 Bohlin Powell Larkin Cywinski's Gaffney residence. 2 Moore Grover Harper's Jones Laboratory. 3 Chrysalis Corporation's "38 East Shiller." 4 Fay Jones & Associates' Thorncrown Chapel. 5 Sargent-Webster-Crenshaw & Folley/Architectural Resources Cambridge's Hall of Languages renovation Syracuse University.

New Residential Community, Roose velt Island, New York, by Sert, Jackson & Associates, Cambridge, Ma;

Banco de Occidente, Guatemala City Guatemala, by Skidmore, Owings & Merrill, Chicago, Il.

The jurors for the current use award were Hugh Stubbins, chairman; Willian N. Morgan, John W. Moutoussamy Evans Woollen, Cathy J. Simon, Franl B. Moson, and Scott Johnston. They re viewed 308 entries to make their selec tions, and found a diversity of design directions, with "no seeming coalescenc of philosophical agreement."

The winners in the extended use cat egory, projects involving restoration rehabilitation, or adaptive use within th past seven years, are: "38 East Schiller," Chicago, Il, b

Chrysalis Corp., Architects, Milwaukee

Jones Laboratory, Cold Spring Han bor, NY, by Moore Grover Harper P.C., William H. Grover & Charles W Moore, Essex, Ct;

Madison Civic Center, Madison, W by Hardy Holzman Pfeiffer Associate New York;

The Oaks, Housing for the Elderl [News report continued on page 36]

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Crocker Art Gallery Restoration, Sacramento, Ca, by Rosekrans & Broder Inc., San Francisco, Ca;

Hall of Languages Renovation, Syracuse University, Syracuse, NY, by Sargent-Webster-Crenshow & Folley, Syracuse, NY, in association with Architectural Resources Cambridge, Inc., Cambridge, Ma;

Hendley Building, Galveston, Tx, by Taft Architects, Houston, Tx (P/A, Nov. 1978, p. 72, Feb. 1981, p. 94).

The extended use award jurors were Arthur Cotton Moore, chairman; Piero Patri, Peter Chermayeff, Mildred Schmertz, Stuart Cohen, Kimberly N. Stanley, and Nicholas H. Holmes III. They reviewed 96 entries and found "greater confidence in juxtaposition of old and new and in taking bold liberties in preservation." They also noted that "happily the country is looking at reuse of its most mundane structures that form the bulk of the environment."

Innovative Furniture in America

A piano opens up to become a bed, a chair or a table opens to become a set of stairs. These, as well as a chair that one actually wears, are part of an exhibition entitled "Innovative Furniture in America" that opened at the Cooper-Hewitt Museum in New York on March 10, at the beginning of a two-year nationwide tour.

The show was curated by David A. Hanks for the Smithsonian Institution Traveling Exhibition Service (SITES), and it is organized into five categories that deal with technique, materials, comfort, portability, and multiple function. This thematic organization helps to illustrate how "American inventiveness, or 'Yankee ingenuity,' has provided a continual initiative to modify and adapt furniture to make it more responsive to changing needs," according to the introductory wall plaque in the show.

The show includes only about 56 examples, and most of them are seating furniture. For many, one of the revelations will be Samuel Gragg's bentwood chair of 1808 made in Boston, which predates Michael Thonet's by 22 years. Considering its title, one might wonder why the exhibit includes Thonet and other examples that are English, Chinese, Danish, and Italian. If the organizers take such a wide view, then one must wonder about some glaring omissions, one of the most obvious of which would be the Vertebra Seating System. Although Emilio Ambasz and Giancarlo Piretti's design was basically worked out in Italy, Krueger has produced an American version since the beginning.

After the exhibit closes in New York, it will travel to the Musée des Arts Decoratifs in Montreal, the Carnegie Institute in Pittsburgh, the Lowe Gallery [News report continued on page 41]



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Wright's Johnson Administration Building chair (top left). Gragg's bentwood chair, 1808 (top right). Horn armchair, 1880–90 (bottom left). Gardiner Platform Rocker, 1872 (bottom right).

lelga

Helga

of Art in Coral Gables, the High Museum in Atlanta, the Minnesota Museum in St. Paul, the Sunrise Museum in Charleston, WV, the St. Louis Museum of Art, the Los Angeles County Museum, and the Grand Rapids Art Museum. [DM]



Helios 80's first award design.

HELIOS 80 competition winners

Ten winners in the HELIOS 80 competition for the design of a tensioned membrane outdoor theater have been announced by the sponsors, Taiyo Kyogo Co., Ltd., and Helios Tension Products, Inc.

First prize, \$15,000, was awarded to Mustafa Kanishka, an employee of Brixen & Christopher, Salt Lake City architects. His design provides an enclosure and seating for an existing performance area in Liberty Park, a fourblock inner-city park in Salt Lake City. Second prize, \$10,000, went to Peter Frink, Robert Beuchat, and Stephen [News report continued on page 44]





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The office building with the handsome split ribbed concrete masonry surfaces and limited north window areas. 50% of the south wall is glazed and fitted with solar shutters for night insulating and sun control. Concrete masonry "Mass" is at work here.

An overall view of the warehouse interior with the concrete masonry Trombe wall in the background. The window-like squares are openings for heat transfer.



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The original office and warehouse complex was built with concrete masonry in the late 70s. When an expansion of the warehouse was needed, the architects chose concrete masonry again, using a south-facing Trombe wall. The Trombe wall consists of a concrete masonry wall,

> NATIONAL CONCRETE MASONRY ASSOCIATION







A construction photo showing the venting ports which exhaust trapped solar heating to the outside in Summer. The grilles shown, transfer heat to the inside during Winter. Diagram at left shows how the system operates.

Standard 12x8x16" concrete masonry units, grouted solid and painted black on the exterior, are employed in the rombe wall.

prouted solid, painted black and a louble-skinned series of plastic panels to shannel the stored heat back into the building.

Proper orientation of the building, and he Trombe wall, provide 38% of Winter neating required to maintain the building it 55° F. The architects estimate the sysem will save over 2,800 gallons of oil per year, or a payback in 7.4 years. The solar coops provide 90% of the lighting rejuired.

C. Treat Arnold, AIA, partner in the irchitectural firm stated in regard to the election of concrete masonry, ". . . the naterial filled our design needs, in addiion to satisfying the necessary thermal ind fireproofing qualifications."

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Split ribbed concrete masonry units frame the acrylic panel covered Trombe wall which is built of 12" concrete block, grouted solid and painted black.



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Second award design (above); third award design (below).



Mallon of the Philadelphia firm Frink & Beuchat, for a design that uses cut and fill to create good sightlines on a flat site.

Third prize, \$7500, was awarded to Susan P. Gill, of Abri, Inc., Cambridge, Ma, who used berming to create a low profile for a theater on an open field at the University of Massachusetts.

Honorable mentions, \$2500 each, were presented to Joseph Larrivee, of Minneapolis; Gerald Anderson, Knoxville; Gary Kautzer and Christopher Kronser, Belgium, Wi; Eugene Hayes, Houston; Joe Middleton, Shreveport; Guntis Plesums, Eugene, Or; and Lyrinda Snyderman, San Francisco.

The jury consisted of Dr. Pietro Belluschi, Eduardo Catalano, George Hoover, Dr. Stefan Medwadowski, and Dr. Jack Rouse, with professional advisor Elisabeth Kendall Thompson.

Oil and vinegar

An unusual exhibit combining talents of well-known artists and architects, such as Frank Gehry and Richard Serra, Richard Meier and Frank Stella, Cesar Pelli and William Bailey was recently opened by The New York Architectural League at the New-York Historical Society. The show's content-of specially commissioned collaborative works between teams of artists and architects, certainly sounded like a valid proposition. The more the natural landscape is fragmented by uncontrolled growth, the more compelling the argument becomes for reinstating once more the old unity between architecture, the arts, and crafts. At least within the controllable world of the office building, civic center, or cultural complex, the various arts have the possibility of attaining that kind of unity on a limited level. [News report continued on page 48]

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News report continued from page 44

The political, economic and social conditions that have brought us specialization have also brought a fracturing between the sister arts. Now formularidden efforts are typical of attempts to integrate these disciplines. Art-by-theyard, with Albers prints lining walls of Miesian office buildings, with Henry Moore sculptures plopped on the plazas outside, or Richard Lippolds dangling in the lobbies inside, doesn't quite do it.

But then neither does the exhibit at the New-York Historical Society. The show, "Collaboration: Artists and Architects," on view until June 7, will travel across the U.S. until 1983. It was dreamed up to celebrate the centennial of the New York Architectural League by commemorating the original intentions of the organization in fostering interaction between the arts and architecture.

The League selected Barbaralee Diamonstein to coordinate and curate the show, and she in turn selected the eleven architects for the exhibit. They in turn chose the artists with whom they would work according to traditional building design procedures.

As with other types of mating, some architects selected artists who would challenge them, others those they could dominate. But the major flaw of the show did not lie in uneven partnerings. It could be found in the absence of a conceptual framework to guide the collaborative efforts. Needed was some central idea that would direct the work toward some shared focus.

Architecture, per se, did not factor greatly in the exhibited results of the



Gehry and Serra's "Connections," a bridge joining the World Trade Center and the Chrysler Building (above). Hardy, Beal, & Freckleton's "Restaurant Pavilions for Bryant Park: Musing on Variety" (below).



collaboration. Most teams created art objects with "architectural" characteristics: most of the architects, in the absence of a program, tossed over their architect's role and instead attempted to be artists. One wonders what their artist teammates must have thought through this process. At any rate, the most successful results of these efforts were art works conceived at an architectural scale, i.e., environmental art. Of these works, the one by James Freed of I.M. Pei & Partners and artist Alice Aycock proved the strongest. The piece, "Two Fantasies of Mythical Waterworks" proposed a large environmental sculpture for Times Square. The intricate acrylic glass, aluminum, and brass model on view, with its parts twisting and whirring and water gushing, attained an elegance, detachment and mechanistic dementia that seemed to reflect nicely the contribution of Freed and Aycock.

The other teams making art with architectural overtones, such as Emilio Ambasz and Michael Meritet or Stanley Tigerman and Richard Haas, fell into a slightly different pit: here the architects seemed to identify mostly with scriptwriters, with their artists turned into illustrators for the storyboards. Again, the viewer is left longing for a little architecture.

There was some attempt to deal with architecture and collaboration by teams designing traditional decorative art ensembles such as frames, pedestals, or even pavilions for the enshrinement of Thus Michael Graves's threeart. dimensional frame for Lennart Anderson's painting, or Robert Stern's pedestal column for Robert Graham's statue, or Cesar Pelli's pavilion for William Bailey's still lifes could be seen as being on safer ground. However only the Pelli-Bailey collaboration was equally balanced: both Graves's and Stern's contributions had distinct lives of their own [News report continued on page 52]







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News report continued from page 48

and ended up fighting with the (weak) art they were supposed to reinforce.

Some teams did present actual buildings. The most disappointing of these was the Meier-Stella work, which in-volved Stella motifs being silk screened on windowshades for a Meier house. They should have left this idea to Gloria Vanderbilt, Diane von Furstenburg and other fashion designers. But the restaurant Hugh Hardy designed with Jack Beal and Sondra Freckleton was truly to avoid. The Hardy scheme, a series of overscaled fragments of Classical architecture bashing against shards of glass pavilions promises a cartoonlike collage that its Bryant Park setting (adjoining the New York Public Library) simply does not deserve.

One project did offer a serious and realistic architectural proposal: the scheme by Susana Torre, the renovation of the 19th-Century immigration buildings on Ellis Island. Her proposal called for turning the island into an immigration history museum and landscaped park. Paradoxically, she did without an artist-collaborator, after her original partner, Charles Simonds, withdrew early on.

Is collaboration then a myth? You won't know from this show. If there is a moral for architects, it is that they do best what they know best-architecture. If there is a moral for collaborative efforts, it appears that they need a clear division of roles, a mutual balance of talents, but above all, a specific problem at hand. The show had a producer in Barbaralee Diamonstein, who was able to guide its execution and obtain fund-

ing from the NEA, Philip Morris, New York State Council on the Arts as well as the League. But the show needed a director-playwright. And it needed to come to grips with some basic questions. If the show was to follow traditional patterns, then it needed a traditional building problem. If the show's intention was to create art with architectural overtones, then the artists should have chosen the architect-partners. If the architects wanted to be artists-particularly in the case of those such as Graves, who do so much art in real life-then one part of the show should have displayed the results of "internal" collaboration. Each of these areas could have been explored. Instead a mishmash happened where collaboration could have been possible. [SS]

Calendar

Exhibitions

Through May 24. John Henry Belter and the Rococo Revival, an exhibition of ornately laminated Victorian pieces. Cooper-Hewitt Museum, New York. Through May 29. Michael Graves. Frumkin & Struve, 620 N. Michigan

Ave., Chicago, Il. Through May 30. Vito Acconci: Instal-lation. Project: Pinchas Cohen Gan. Max

Protetch Gallery, New York. Through May 31. Late Entries to the Chicago Tribune Tower Competition. Walker Art Center, Minneapolis, Mn. Through May 31. Hille—75 Years of British Furniture. Victoria & Albert Museum, South Kensington, London. **Through May 31.** The Royal Abbey of Saint-Denis in the Time of Abbot Suger, 1122-1151. The Cloisters (branch of the Metropolitan Museum of Art), New York.

Through May 31. Architecture in Context—360 Michigan Ave., Corridor Gallery, The Art Institute of Chicago. Through June 7. Collaboration: Artists and Architects. New York Historical Society, New York.

Through June 7. James Stirling's Design for Fogg Art Museum, Harvard University, Cambridge, Ma.

Through June 28. Solar Age Architecture. Natural Sciences Gallery, Oakland Museum, Oakland, Ca.

Through July 31. P.B. Wight: Architect Contractor, and Critic, 1838-1925 Burnham Gallery of Architecture, The Art Institute of Chicago.

May 15-June 28. Architect's Furniture Hayden Gallery and Hayden Corridor Galley, MIT, Cambridge, Ma.

May 17-21. Interior Design Interna tional '81. Olympia, London.

June 2-16. Thirty-Fourth Annual Stu dent Exhibition, New York School of In terior Design, 155 E. 56 St., New York June 5. Opening, Louis Kahn: Draw ings. Max Protetch Gallery, New York, July 10-Aug. 5. Sadin-Karant: Con temporary color architectural photog raphy. Frumkin & Struve, Chicago. July 25-Sept. 15. Marcel Breuer: Furni ture and Interior Design. Museum o Modern Art, New York. [News report continued on page 56]

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News report continued from page 52

Conferences, seminars

May 17–22. AIA Annual Convention. Minneapolis.

May 25–26. Energy and Big Buildings. University of Pennsylvania, Philadelphia. Contact M.A.S.E.A., 2233 Gray's Ferry Ave., Philadelphia, Pa 19146 (215) 545-2150.

May 26–30. Solar Rising, American Section of the International Solar Energy Society conference, Philadelphia Civic Center. Contact Richard Ross, Bennett Hall, University of Pennsylvania, 3440 Walnut St., Philadelphia, Pa 19104 (215) 243-3211.

May 27–28. The Economic Impact of the Arts. Cornell University Graduate

School of Business & Public Administration, Ithaca, NY. Contact Jane Cohn (212) 977-9400.

May 28-June 12. First Architectural World Biennial at Sofia, Bulgaria. Contact Union of Bulgarian Architects, 11 Dimitar Polianov St., 1504 Sofia (Bulgarie).

June 4-5. Systems '81 International Conference on Production and Management of A/E Firms. Hyatt House at L.A. Airport. Contact George S. Borkovich, P.O. Box 11316, Newington, Ct 06111.

June 8-10. Underground Space Conference and Exposition, Kansas City. Contact Ruth Sime, American Underground-Space Association, % Suite 900, Minnesota Building, St. Paul, Mn 55101.



June 14–19. 31st International Design Conference in Aspen, Co. Contact Pam Arnold, IDCA office, Box 664, Aspen, Co 81612.

June 16–19. NEOCON 13. The Merchandise Mart, Chicago.

June 18–19. Passive Solar Industries Council annual meeting. Hyatt Regency Hotel, Washington, DC. Contact Linda Smith, Planning Management Associates, Suite 1100, 1010 Vermont Ave., NW, Washington, DC 20005 (202) 347-1010.

June 22–24. Construction Specifications Institute, St. Louis, Mo. Contact E.M. Dutchak (202) 833-2160.

June 25. Adaptive Reuse: Opportunities for Housing. Yale University, New Haven, Ct. Contact Alvin Dunaisky, Tri-State Regional Planning Commission, 1 World Trade Center, 82nd Floor, New York, NY 10048. (212) 938-3394.

June 25–27. Eighth Annual National Back-to-the-City Conference. University of Wisconsin-Milwaukee. Contact Bruce M. Kriveskey, AICP, University of Wisconsin-Milwaukee School of Architecture and Urban Planning, P.O. Box 413, Milwaukee, Wi 53201.

Competitions

May 15. Registration deadline, Historic Savannah Foundation Design Competition. Contact the Foundation, Audrey Rhangos, P.O. Box 1733, Savannah, Ga 31402. (912) 233-7787.

May 19. Submission deadline for DESIGN + ENERGY student Competition. The Association of Collegiate Schools of Architecture, 1735 New York Ave., NW, Washington, DC 20006.

May 22. Application deadline for Building Value into Housing Grant Program. HUD, 451 Seventh St., SW, Washington, DC 20410.

May 29. Entry deadline for Arizona Passive Solar Design Competition. Arizona AIA, 1121 N. 2nd St., Phoenix, Az 85004.

June 1. Deadline for completed applications for Educational Facilities Laboratories 1981 Architectural Fellowships Program. For Fellowship guidelines and application forms contact Nancy Morison Ambler EFL/AED, 680 Fifth Ave., New York, NY 10019.

June 12. Deadline for entry forms, Red Cedar Shingle & Handsplit Shake Bureau 1981 Architectural Awards Program (entry deadline, July 17). Contact the Bureau Architectural Awards Dept., 515 116th Ave. NE, Suite 275, Belleview, Wa 98004.

Aug. 28. Submission deadline, Owens-Corning Fiberglas 10th Annual Energy Conservation Awards Program. Contact Mary G. Reinbolt, Owens-Corning Fiberglas Corp., Fiberglas Tower, Toledo, Oh 43659 (419) 248-8053.

Aug. 31. Submission deadline Shinkenchiku Residential Design Competition: An Exhibition on the Grounds of a Museum of the Twentieth Century. Contact Shinkenchiku-sha Co. Ltd., Attn. Editorial Section of the Japan Architect, 31-2 Yushima 2-chome Bunkyo-ku, Tokyo, Japan. Project: Showroom, Alma Desk Company, New York City Interior Architect: ISD Incorporated, New York City Lighting: Lite Duct by Peerless, one of the 13 Longlite systems. Here, red-enameled 6" fixtures hang diagonally across the ceiling coffer, creating an unexpected interruption of the space. Lite Duct comes in seven different diameters and configurations, in any finish, extends to any length, and adapts to virtually any optical task.

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ngogon13

JUNE 16-19,1981 THE MERCHANDISE MART/CHICAGO & THE INTERNATIONAL PAVILION AT EXPOCENTER

R. Buckminster Fuller will be the keynote speaker at Neocon 13, the country's largest contract furnishings market, to be held June 16 through June 19 at Chicago's Merchandise Mart. Beginning at the serious hour of 8:30 A.M. on Wednesday, June 17, his topic is entitled "Design Revolution: Humanity's Number One Answer to the Present World Crisis," in which the famous techno-humanist will argue that a major breakthrough in environment planning is necessary to avert the crises we face. Other seminar topics will focus on the Middle East and Africa, computerized offices, and Japanese management techniques. Among the better known speakers will be: Chicago's Mayor Jane Byrne and Former Secretary of Commerce and Ambassador to the United Nations Philip Klutznick.

The American Society of Interior Designers is throwing a gala Golden Anniversary Ball—it is their 50th anniversary at Chicago's Cultural Center as a Neocon kick-off on June 16. It will be a black tie affair with a 1930s theme, choreographed by Richard Himmel and Ann Grey. Tickets are \$100 each and may be ordered from ASID, 620 Merchandise Mart, Chicago, II 60654, (312) 467-5030.

Beyond the dancing and discussion, there are 1,080,000 sq ft of furnishings in the Mart and an expanded international exposition on the second floor of the Apparel Mart across the street.



19 Progressive Architecture 5:81



JUNE 16-19.1981 THE MERCHANDISE MART/CHICAGO INTERNATIONAL PAVILION AT EXPOC

Session 1: Conference of mayors Tuesday, June 16, 4:00 р.м.

Defining the needs of urban America Challenged by problems unique to their cities and universal to all cities, the mayors will explain the steps they have taken to revitalize metropolitan areas facing decay, destruction, and desertion.

Speaker: Mayor Jane Byrne, Chicago.

Session 2: Keynote address Wednesday, June 17, 8:30 A.M.

Design revolution: Humanity's number one answer to the present world crisis

The architectural genius and pioneer of alternative environment planning urges that only a major breakthrough in environment planning can solve the crises we face.

Speaker: R. Buckminster Fuller, FAIA.

Session 3

Wednesday, June 17, 4:30 р.м.

Reaffirming the strength of American industry: A plan for increasing production, technology, and innovations Restoring the competitive status of the U.S. in the world market is a number one priority of our nation's leaders. Cooperation is needed among leaders of industry, government, and labor to create new technologies and innovations

Speaker: Ambassador Philip M. Klutznick.

Session 4

Wednesday, June 17, 4:30 P.M.

World overview of architecture: A focus on the Middle East and Africa

Architects from Kuwait and Khartoum, Sudan, will express the need for future collaboration among nations in the global marketplace as a means of con-

Moderator: Ted T. Ayoub, executive vice president, Toledo International Corporation.

Speakers: Abdalla M. Sabbar, senior partner, TEST Technical Studies Bureau, Khartoum.

Fareed Khoursheed, Senior partner, TEST Technical Studies Bureau, Kuwait.

Session 5

Thursday, June 18, 8:30 A.M.

The XYZ's of Productivity: "Theory Z" challenges American management style

A challenge to American industry to restructure management style. Mutual trust and cooperation inherent in the Japanese culture have dramatically increased productivity. American managers should take a hard look at their management style.

Speaker: Dr. William Ouchi, professor, Graduate School of Management, University of California at Los Angeles.

Session 6

Thursday, June 18, 4:30 P.M.

Alternative living environments: From the heights of the universe to the depths of the sea

Earth, once thought to be rich in resources, has become overused and overcrowded. Environmental planners will attempt to create an understanding of alternative living environments and explain the realities of life underwater and in outer space.

Moderator: Brock Arms, AIA, ASID, Brock Arms Associates.

Speakers: Colin H. Davidson, executive editor of I.F. Systems, University of Montreal.

Albert C. Kyser, formerly aerospace technologist with NASA, originator of the "Aerial Relay System."

Staffan Berglund, architect, Stockholm.

Session 7

Thursday, June 18, 4:30 P.M.

Facility management: Opportunities in a time of crisis

Facility management is emerging as a strategic, integrated approach which looks at the workplace in relation to people and work processes. It includes space planning, interior design, architecture, human resources, operational managers, and others. Speakers: David Armstrong, director,

Facilities Management Institute.

Willard Gove, vice president, Corporate Real Estate and Field Administration, Honeywell Corp.

Charles F. Hitch, president, National Facilities Management Association; vice president and senior operations officer, Manufacturers National Bank of Detroit.

Session 8 Friday, June 19, 8:30 A.M.

The office revolution: The paperless office of the future becomes a reality

Automated office equipment has made the paperless office a reality. Integration of new business technologies is crucial to achieve maximum productivity and to maintain a competitive, profitable business edge.

Speakers: Larry A. Stockett, president, Micronet, Inc.

Louis H. Mertes, vice president and general manager of systems, Continental Bank of Illinois.

Richard Hrebik, director of administration, Jones, Day, Reavis & Poque.

Session 9

Friday, June 19, 8:30 A.M.

The inside out of design: The changing role of the architect

Economic restraints, energy guidelines, retrofit, and decreasing space now shape the architect's approach to planning designs. Chicago architects discuss how they are using these building blocks to create new architecture.

Chairman: Kenneth E. Johnson, chairman of Interior Architecture Committee, Chicago Chapter, AIA; member of AIA Committee on Interiors; president and chairman of the board, ISD, Inc.

Speakers: Helmut Jahn, executive vice president and chief of design, Murphy/ Jahn, Inc.

Harry L. Weese, chairman of the board, Harry Weese & Associates.

Workshop A

Tuesday, June 16, 10:30 а.м.

The international marketplace: Expanding American export opportunities

Small and medium-sized firms will be made aware of export market opportunities to export architectural and design products and the availability of funding for an export business. Chairman and moderator: David C

O'Neal, Lt. Governor, State of Illinois. Speakers: Richard Garnitz, director Office of Export Marketing Assistance U.S. Department of Commerce.

Gordon W. Lord, vice president, Letters of Credit Dept., Barclays Bank International.

[Continued on page 70]



Seminars and workshops



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Continued from page 62

Workshop B

Wednesday, June 17, 10:30 A.M.

New technical developments in contract carpeting: Specification and installation

Moderator: Walter Guinan, former president, American Carpet Institute and The Carpet and Rug Institute. **Participants:** James Patrick Donovan,

president, Donovan Equipment. James Darras, vice president of interior

design, Perkins & Will. Doyle E. Cox, manager, Office Service

Dept., Lockheed Georgia Co.

Workshop C

Wednesday, June 17, 2:30 P.M.

Planning today's office: Creating an enriching and productive environment Step-by-step procedures for planning the designs for an office environment. Chairman: Jack Lowery, FASID, national president, ASID; president, Jack Lowery & Associates.

Participants: Nina Hughes, ASID, vice president, GHK-2, Inc.

William Richards Whaley, FASID, Hellmuth, Obata & Kassabaum.

Session D

Wednesday, June 17, 2:30 P.M.

Legal ramifications of contract bidding: How to bid on contract jobs

Proper procedures for presenting a contract bid within legal boundaries, with warnings of pitfalls in overextending and underclassifying bids.

Chairman: Marshall Silverman, cochairman, Contract Furnishings Council; president, Contract Interiors for Business, Inc.

Participant: McNeill Stokes, attorney, Stokes & Shapiro.

Workshop E

Thursday, June 18, 10:30 А.М.

Managing and marketing the small design firm: From small beginnings to financial success

Learn how to define your firm's problems and solve them with an effective and creative management and marketing program.

Chairman: Jo Heinz, IBD, national president, Institute of Business Designers, InterSpace Design.

Participants: Justin Thompson, managing partner, Business Products Consulting Group International, Ltd. Mary Knackstedt, ASID, NHFL, author

of Interior Design for Profit.

Workshop F

Progressive Architecture 5:81

70

Thursday, June 18, 10:30 A.M.

Rare insights into well done restaurants: The designer faces the client What puts certain restaurants in style? Experts tell how they create an atmosphere that attracts patrons. **Participants:** Eugene Sage, Gene Sage Restaurants. Richard Himmel.

Workshop G

Thursday, June 18, 2:30 р.м.

Life cycle costing for contract carpeting

Moderator: Walter Guinan, former president, American Carpet Institute and The Carpet and Rug Institute. **Participants:** Dave Burgin, president, Certified Chemical Equipment Co. Jo Ann Herring, department manager, Corporate Housekeeping, Abbott Laboratories.

Workshop H

Thursday, June 18, 2:30 P.M.

Updating the regional shopping center: Reviving business in neglected communities

Yesterday's warehouses provide virtually unlimited business opportunities for creative architects and designers. Shopping mall retrofit from social and environmental concerns to tenant mix to shopping size will be presented.

Participants: M.J. Kamin, ASID, Dvorak Design Interiors, Ltd.

Otto C. Nerad, architect, Nerad & Assoc.

Harry F. Chaddick, First American Realty Company.

Workshop I

Friday, June 19, 10:30 A.M.

The humanization of the hospital experience: Redesigning for comfort, concern, dignity, and professionalism Designers and hospital administrators discuss how they are redesigning antiseptic atmospheres to reflect concern and compassion for the patient.

Chairman: Jean Hartnett, ASID, president, Jean Hartnett & Associates.

Participants: Richard Cleermans, director, Assistance & Procedures, Mayo Clinic.

William Bowen, director, Interior Design, University of Minnesota Research Hospital.

Workshop J

Friday, June 19, 10:30 A.M.

Light touches: exploring lighting alternatives in open-plan offices

Lighting experts demonstrate alternatives to open-plan office lighting using indirect techniques such as task and ambient, and deep cell parabolic. Solutions will be challenged for possible inefficiencies.

Participants: Mitchell Kohn, Designer-Lighting Specialist.

David Munson, director of lighting design, Hellmuth, Obata & Kassabaum. Gary Steffy, senior lighting designer, Smith, Hinchman & Grylls Assoc.



NEOCON showroom index

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Brickel Associates: Mobile conference table with stainless steel tubing base, 5-in. casters, wood top; by Ward Bennett. Circle 110 on reader service card



Arconas: The Damier series modular seating and sofa group with foam on steel frame back, foam on wood frame seat. Circle 102 on reader service card





9872 AQUARIUM VITRINE / CUSTOM SIZES FOR RESIDENTIAL, BUSINESS & RESTAURANT INTERIORS THE PACE COLLECTION INC. / 321 E. 62 ST., NEW YORK 10021 / 838-0331 CHICAGO · LOS ANGELES · MIAMI · ATLANTA · DALLAS · HOUSTON · BOSTON Circle No. 397 on Reader Service Card

INTRODUCING



DAZZLING COMFORT FROM LA-Z-BOY CONTRACT DESIGNED BY EDWARD VASQUEZ

Light, bright, pleasing to the eye. This is what one first perceives when he views our new Series 7000. It's scaled and proportioned for the open office of today's business environment. Its clean, efficient lines will enhance the decor and help improve the productivity of the office.

of the office. What is equally important about our new Series 7000 is what you don't see. More man hours are lost due to back problems and muscle fatigue than any other reason. The major contributor to these problems is improper seating.





A. Back height adjustment for proper lumbar support. B. Seat depth adjustment to fit the individual. C. Seat height adjustment. D. Soft foam edge to prevent circulation loss and fatigue. E. Swiveltilt tension adjustment. Doubledoweled hardwood frame. Perma-Mesh springs by Flex-O-Lators. Dense foam for proper support. Soft foam for comfort.

C92073

Series 7000 is ergonometrically designed for proper compressed seat height and lumbar support. Quality is another feature of

height and lumbar support. Quality is another feature of Series 7000. Each style features a hardwood frame, double-doweled for strength. We've used Perma-Mesh springs by Flex-O-Lators. There are two foam systems; one dense and firm for proper support and a softer foam for greater comfort. In short, Series 7000 is as good as we know how to make a chair. And with La-Z-Boy's fifty years of experience, we know how to make quality chairs.



LA-Z-BOY CONTRACT A DIVISION OF THE Ja-Z-BOY CHAIR COMPANY

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brings you the first full height Privacy Panel System."

panel beights, including the first fullbeight panel as part of a complete space and technology management system.

sizereng, saming and pour vase.

To see the new **Privacy Panel System**, visit Hauserman at Neocon, Suite 1012, June 16-19.

> Panels in a wide assortment of colors and fabrics interface with a variety of functional components–desks, CRT support surfaces, free-standing filing



Cado/Royal System: Format stackable chair, arm or armless models, with bent beechwood frame, covered seat and back. Circle 114 on reader service card



Brueton Industries: Tee Round Console of stainless steel with black glass top and sides, designed by J. Wade Beam. Circle 111 on reader service card



Castelli: DF/81 chair series with molded plywood shell, covered with molded polyurethane; designed by Robert De Fuccio. Circle 115 on reader service card



Conwed: System 2^{TD} open office furniture is updated with contemporary features: radiusedged drawers; recessed pulls. Circle 118 on reader service card



Coral of Chicago: Wishbone Verel casement fabric, from Prime Time Collection, is inherently flame retardant. Circle 119 on reader service card



Claud Bunyard Design: *CB1010 chair,* for conference or dining, in laminated ash with upholstered seat and back. *Circle 112 on reader service card*



C I Designs: #711 Kirkpatrick folding chair, with solid ash frame, cane or fabric seat, black aluminum hinges. Circle 113 on reader service card



Charlotte Chair: #2020 Kirk contemporary oak chair with unusual upholstery technique is available singly or ganged. Circle 116 on reader service card



Collins & Aikman: Cardinal Point is a new geometric pattern of ColonnadeTM carpet of Badische's CR4 yarn. Circle 117 on reader service card



Cramer: 9524 WorkSeat[®] operational/ EDP chair with automatic seat height adjustment, molded cushions, padded armrests. Circle 120 on reader service card



Cumberland: #127 lounge seating consists of sofa, settee, chair, modular components, and matching side table. Circle 121 on reader service card





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designerTM—discovery has been carefully considered to blend into the open office systems. The dark brown frame color coupled with our eight grades of upholstery (including leather) yields the ultimate luxurious look and feel. The discovery office seating system with unique features and benefits when coupled together and spread throughout the work environment, produce a synergistic effect increasing productivity.

dynametricsTM—discovery has incorporated the latest technology in the fields of anthropometrics and ergonomics—sciences devoted to measurement of the human body and the application to man-machine relationships. dynametrics; forces in motion and the science of measurements provides freedom of movement and comfort through push button pneumatic technology.

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dynametrics[™]—Dynamic and metrics—forces in motion and the science of measurements describe the ability of the "d chair" to seat a person comfortably in the many positions our physiology causes us to take. The "d chair" recognizes we are people on the move.



duraflex[™]—Combines durability and flexibility: a revolutionary comfort feature with the built in "memory"™ of the special thermoplastic actually flexes as you change position. One can bounce in the seat from a standing position and experience a shock absorber sensation.

Stacks 16 high on floor; 45 high on dolly and is coordinated with the #1276 stack table line. Series includes stacking arm chair, right and left flip down tablet arms and accessories.

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Circle No. 446 on Reader Service Card

1642 Crystal Kansas City, Missouri 64126 Toll-Free 1-800/821-3500 816/241-4500 Telex: 434218 Fixtures KSC



JUNE 16-19,1981 THE MERCHANDISE MART/CHICAGO & THE INTERNATIONAL PAVILION AT EXPOCENTER



Dunbar: 6530 Parabola side chair, with mahogany frame, has semi-attached seat and back that are upholstered. Circle 125 on reader service card



Dansanna International: SL-3672-T folding desk is offered with walnut or oak finish tops, sleigh legs of wood. Circle 122 on reader service card



Davis Furniture: Conference table has race track oval top of rift red oak, polished aluminum trim, red oak base. Circle 123 on reader service card



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Exotic Furniture: D.C. Cube, one of six series, offers simplicity of line; finishes are walnut, natural and medium oak. Circle 126 on reader service card



Fixtures Mfg.: D chair of thermoplastic has "dynametric" styling for comfort; available in 16 shell colors, 4 frame colors. Circle 127 on reader service card



Forms & Surfaces: V Series unglazed ceramic pavers are high density, long wearing, easily maintained tiles. Circle 128 on reader service card



Gia Internationale Designs: #1100 Moderna sofa with polydacron back, seat, and arm cushions, recessed base. Circle 129 on reader service card



Global Industries: Viceroy Series seating of solid oak framing, upholstered in designer fabrics; matching tables. Circle 130 on reader service card



Gregson Furniture: T-7038 DP executive desk of mahogany solids and veneers; 4113-T swivel/tilt chair. Circle 131 on reader service card



Grosfillex: Five-position folding armchair in a choice of high-gloss lacquer finishes has an optional cushion. Circle 132 on reader service card

ikria

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Two thousand years ago, the Greeks designed seating for assembly areas which met essential needs. Today, the requirements of theaters, lecture halls, and similar spaces are more complex. Ikria is a seating system designed to fulfill these needs economically. Brochure available upon request.

Design by Dave Woods

JG Furniture Systems A Division of Burlington Industries Quakertown, PA 18951 215 536 7343

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Name

Position

Panel Concepts, Inc. Visit us during NEOCON XIII, A subsidiary of Standard-Pacific Corp. 3001 South Yale Street Santa Ana, California 92704

(714) 979-3680. Outside of California call toll-free (800) 854-6919 Firm Phone

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The Glass

Il glass used in Koch + Lowy lamps is and-blown. This allows for specialized esign. And subtle nuances of texture, one and color in the glass itself. Obvious uality your clients will see and recognize.



The Swivel

Koch + Lowy swivel lamps have a superb enclosed swivel. With all parts of solid brass. Completely machined so they're free of sand holes and cracks. Koch + Lowy swivels are virtually indestructible. They will never sag, droop or flop. Never need adjustment. And they are noiselessly-smooth thanks to nylon seating-rings. One more reason why Koch + Lowy lamps are a lifetime value. As functional as they are beautiful.

The Wiring

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You can't make a quality lamp with substandard wiring. So all our wiring, sockets, switches and connectors meet and often exceed UL standards.

The Heft

The quality that goes into every Koch + Lowy lamp can be felt when you pick one up. Try the "heft-test" against one of our competitors. Feel which is heavier. Then judge for yourself.

CH+LOW/Y INC

THE PAST, PRESENT, AND FUTURE OF MODERN LIGHTING

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The Arrival

Each Koch+Lowy lamp is specially packed in foam, shrink-wrap or other cushioning material. Then they're carefully boxed and shipped.



A Final Reminder

Don't confuse wattage with lighting. In the right lamp even 30 watts can provide sufficient lumens for reading. Proper lamp design can utilize the wattage to its fullest. For brightness. For special effects. Or as an art form. And no one does more with lighting than Koch + Lowy.

The Koch+Lowy collection of classic lighting is designed to coordinate with traditional and contemporary decor. Inspect it at our showrooms around the country or write under your letterhead for our catalogue. For your special

large-scale lighting requirements we can start with your designs or ours, and do all the contract work. At Koch+Lowy we do it all right here in the U.S.A.

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When a touch of flair is called for in the guest room or lounge, this is it: Shelby Williams' new flaired-design lounge chair. It features Shelby's new Platina[™] base, for a chair that really shines. Another winner from the world's leader in seating.

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JUNE 16-19,1981 THE MERCHANDISE MART/CHICAGO & THE INTERNATIONAL PAVILION AT EXPOCENTER



Heron International Studios: Mesa tapestry design by Helen Webber, one of sixteen to be shown at Metropolitan. Circle 136 on reader service card



Gunlocke: Alpha seating, including desk and conference chairs, is contoured for support; designed by Warren Snodgrass. Circle 133 on reader service card



Harter: T-4500 series office seating has tubular arms, swivel base, and upholstered back and seat. Circle 134 on reader service card



Helikon Furniture: Parallels small-scale executive swivel armchair designed by Bob Becker for use in limited space. Circle 135 on reader service card



Howe Furniture: Information management station designed to accommodate electronic equipment singly or in groups. Circle 137 on reader service card



IKD: Custom-fit Regent chairs in three models have Constant-Force backrest for constant level pressure at all tilts. Circle 138 on reader service card



Interface Flooring: Tattersall carpet tiles, 18-in.-square modules, in 10 color combinations, will not curl or warp. Circle 139 on reader service card



International Contract Furnishings: Modular sofa cushions unzip and Velcrofastened covers wash or dry clean. Circle 140 on reader service card



JG Furniture: Ikria theater seating, designed by Dave Woods, has pedestal or standard frame for floor or riser mount. Circle 141 on reader service card



Koch & Lowy: Ovone hand-made Italian ceramic lamp, 13 in. diameter, 31 in. high, striped in rose, green, or white. Circle 142 on reader service card



Krueger: Dorsal Stack Chair, designed by Emilio Ambasz and Giancarlo Piretti, provides comfort and back support. Circle 143 on reader service card

104



FOCUS YOUR IMAGINATION

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> Office Furniture Systems





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JUNE 16-19,1981 THE MERCHANDISE MART/CHICAGO & THE INTERNATIONAL PAVILION AT EXPOCENTER



Harry Lunstead Designs: Matrix System open office with wireways at work surface, optional electrical/communications raceways. Circle 147 on reader service card



Jack Lenor Larsen: Cubico Lounge Group, designed by Ed Reuter, has hardwood frame, polyurethane foam, loose cushions. Circle 144 on reader service card



Loewenstein: #350 Futuro Chair, an Italiana Prototipi design, has optional armrests, hinged tablet, book baskets. Circle 145 on reader service card



Maharam Fabric: Façade 54-in.-wide inherently flame-resistant upholstery fabrics meet NFPA 701 Vertical Test code. Circle 148 on reader service card



Mannington Mills: Royal Pavilion resilient no-wax flooring from Aristocon collection in four classic colors. Circle 200 on reader service card



Lonseal: Loncoin embossed designs on allvinyl sheet flooring, for use in high traffic areas, offers easy care. Circle 146 on reader service card



McDonald Products: New Horizons 3000[™] work stations accessories: Correspondence Pocket, Calendar/Memo unit. Circle 201 on reader service card



Modern Mode: Vertical Office System consists of vertical cabinets and work surfaces added to basic work module. Circle 202 on reader service card



Mohawk Carpet: Geotron 100 percent Antron III nylon carpet of crush-resistant Woven Interlock construction in a loop pile. Circle 203 on reader service card



Molla: Portico group of Alumaloy[®] furniture includes sofas, loveseats, chairs, and tables for indoor or outdoor use. Circle 204 on reader service card



NesTier: PlanTier self-watering planters, for indoors, have soil container with water tank below to reduce plant care time. Circle 205 on reader service card

106

Leonardo. A contract chair so affordable, it's extravagant not to buy it.



A number of architects and signers have asked us how we can oduce an upholstered chair like onardo at its surprisingly low price.

And quite frankly, we were re than a little delighted when realized that Leonardo's design icept allowed us to offer so much ting for under \$260 (list).

We've used a que manufacng process that lds self-skin yurethane foam the seat and k, making the ir and matching of more service-



able—and more affordable than conventional upholstery.

Designed by Paul Tuttle, Leonardo is easily assembled with an allenhead wrench and consists of only three different parts (the stool, four). And all parts screw into a heavy-gauge steel frame inside the self-skin polyurethane foam. So

that while the chair is extraordinarily sturdy, parts can still be replaced on-site. And since Leonardo is manufactured here, replacement parts are readily available.

In fact, you can even save money on delivery by

having it shipped knocked down.

Finally, because the chair and stool are virtually identical, you can carry the same design, for example, from a restaurant bar through to the dining room.

Leonardo. You'll be amazed at what it will do for your bottom line.

For more information about our complete collection of contract and residential furniture write or visit us, Atelier International, Ltd., 595 Madison Avenue, New York 10022 or phone (212) 644-0400. For your convenience. we have additional showrooms in Chicago. Dallas. Denver, Los Angeles, Houston. San Francisco and Seattle: sales offices in Atlanta. Boston. Miami. Philadelphia, Salt Lake City. Washington, D.C. and selected furniture dealers nationally. Member ASID IBD, BIFMA.

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These 100% wool face geometrics in the classic gros point weave are orchestrated in 17 colors suitable for any rendition you create.

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The tops are available in flip, folding or fixed models, and in a variety of shapes and sizes, for space planning efficiency. They are also durable. And, as you can see, attractive. Benefits specifiers appreciate. But at Howe, we believe the real advantages lie underneath the table. A Chromax plated tubular steel understructure has silver induction weldments

WITH TEMPEST, THERE ARE ADVANTAGES TO BOTH SIDES so clean the joints are hardly visible. And so strong they're virtually indestructible. Fortunately, you get both sides of a Tempest table. And they're both winners. For more information on the Tempest Tables, write HOWE Furniture Corp., Dept. 55, 155 East 56th St. NYC, NY 10022. Or call collect: (212) 826-0280. Showrooms nationwide.





JUNE 16-19,1981 THE MERCHANDISE MART/CHICAGO & THE INTERNATIONAL PAVILION AT EXPOCENTER



Rosemount Office Systems: Electrified panel system for open office plans has separate top and bottom raceways. Circle 209 on reader service card



James Seeman Studios: Tiffany Stripe wallcovering, composed of alternating solid and slatted vertical stripes, in five colors. Circle 213 on reader service card



Pace Collection: 909 and 910 lounge chair and ottoman are dacron and foam on a steel frame, covered in leather or suede. Circle 206 on reader service card



Harvey Probber: Prow Edge desks in executive and secretarial versions have fullto-the-floor pedestals, oak edges. Circle 207 on reader service card



Rose Manufacturing: Progressions[®] system for open office plans includes acoustical and electrical power panels and storage. Circle 208 on reader service card



R-Way: The Oakur Collection contemporary beds, desks, dressers, and chests of red oak with plastic laminated tops. Circle 210 on reader service card



Scandiline: 773-4242 conference table of oak, teak, or walnut wood or plastic laminate top and wood legs; two heights. Circle 211 on reader service card



Scope Furniture: SA 900 Series seating with hardwood frame, down and feather seat and back cushions over foam core. Circle 212 on reader service card



Selig Contract/KT: Wait-Control group, designed by Rich Thompson, in 18 models with oak or walnut frames, choice of finish. Circle 214 on reader service card



Shelby Williams: 5600 rattan side chair, with rug-beater splat, available with padded spring or rattan peel seat. Circle 215 on reader service card



Spinderi: Telos 90 curtain panel system, available in various fabrics and other materials, and produced in Italy. Circle 216 on reader service card

12

All-Steel 8000 Series Systems Furniture not only offers you the freedom to design a totally new open plan office ... it also offers panels and componentry which combine with existing office furniture. If you have an investment in conventional furniture to consider, such a combination could make real economic sense today.

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the future, too, as offices grow and change. Because 8000 Series is a furniture based system that remains compatible with either traditional

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thing you never really lose. Learn more about All-Steel 8000 Series Systems Furniture. Call Wayne Wilkins at 312/859-2600, or write for our new brochure

All-Steel Inc. Aurora, Illinois 60507. Circle No. 306









JUNE 16-19,1981 THE MERCHANDISE MART/CHICAGO & THE INTERNATIONAL PAVILION AT EXPOCENTER



Turner: Kontur seating and tables with chrome-plated steel frames, designed by Burkhard Vogtherr and Herbert Ohl. Circle 220 on reader service card



Stark Carpet: Coglin collection of 100 percent wool French wiltons in 15 patterns, all white on white, in two levels. Circle 217 on reader service card



Stendig: Chariot chaise longue of polished chrome tubular steel with panel-sewn black or tan natural leather. Circle 218 on reader service card



Thonet: The Interlock Stack Chair of polished chrome plated steel, one-piece seat/ back by Warren Snodgrass. Circle 219 on reader service card



U.S. Furniture: #6641 pull-up chair with aluminum frame and soft, contoured up-holstery, for office, or conference room. Circle 221 on reader service card



Vecta Contract: Echelon chair series addition has aluminum arms available on desk, conference, or visitor models. Circle 222 on reader service card



Westnofa USA: Laminova chair, by Sven Ivar Dysthe, with natural or stained beech frame, fabric or leather upholstery. Circle 224 on reader service card



S.R. Wood: Flanders-Nantes wallcovering, from Royal Elegance collection, of blended linen, paperbacked and pretrimmed. Circle 225 on reader service card



Xception Design: Plan E desk features soft radius detail at leg corners, top, and drawer front edges; walnut or red oak. Circle 226 on reader service card



Vogel-Peterson: ScreenOne open office screen comes in 13 sizes, three heights; with six trim and 40 color choices. Circle 223 on reader service card



Yorkraft: Octagonal Spectacular ceiling unit, with fluorescent lighting optional, for T-type grid or conventional ceiling. Circle 227 on reader service card

We're introducing Dorsal™ seating at NEOCON 13...

With the new Dorsal[™] chairs, designers Ambasz and Piretti continue their pioneering work in automatically adjustable seating, this time in an economically priced range. Dorsal chairs respond automatically to any position the user may assume while providing comfort and excellent back support.

The Dorsal seating system includes arm or armless versions of Stack chairs, Operational pedestal models and Tandem seating.

Preview them during NEOCON at Krueger Merchandise Mart Suite 1184.







Designed and developed by Emilio Ambasz and Giancarlo Piretti for

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We talked to designers all across the country. You told us about the solid colors most important to you. We created them in the Wilsonart Solid Colors Collection for 1981. A whole palette of 64 hues from bold to neutral, including very subtle color distinctions often so critically essential to your design statement.

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For an unusual creative experience, visit and enjoy the Wilsonart Moongate Exhibit when it is in your city.

These are some of the 64 solid colors available in the Wilsonart Designer line for 1981. All Wilsonart solid colors are postformable.



Farewell, caro Maestro

Carlo Scarpa is among the few truly splendid architects of this century, yet almost unknown to the American audience. P/A's selection of his work includes the two unquestioned masterpieces, Castelvecchio Museum and Brion-Vega Tomb, and a last work designed before but completed after his death. As introduction, we offer this farewell letter from curator/architect/designer Emilio Ambasz. [NM]





milio Ambasz, an architect nd designer practicing in lew York and Bologna, is ne author of *Italy: The New omestic Landscape* and many rticles on Italian architecire and design.

It is said that God lurks in the details. I hope it is true. Because in your work the building is just the scaffolding for the glorious display of magnificent details. You had an almost Japanese sense of delight in details, expressing protruding beams, crossing members, wall corners, passageways, and all building crevices with such a reverent joy in their design. After you awakened the ancestral ghosts of Japanese architecture during your last voyage there, what a sight your architecture must have been to them: bold in gesture, sensual in surface, languid in line. What a tease it must have been for their hibernated longings to perceive your mischievous juxtapositions of seemingly incongruous materials, your mid-air crossings of never-touching beams, your cutting through a wall just to reveal its matter as multilayered strata. They must surely have taken you to their hearts.

Although still young when acknowledged as an important talent, you were, in some way, a late bloomer. First you were a Rationalist, albeit with a florid bent; then, you found in Wright the garments for your design incantations. Remnants of these two phases continued to inform your work when you had already developed a very personal form of architectural discourse. Yours was a language where neither the text nor the final message mattered as much as the single, resonant word. Your greatest delight lay in underscoring and, sometimes, in overstating the texture and pitch of isolated words; those outstanding words which had overwhelmed their original sentences and which you utilized eminently for their euphonic values. In your opera, the libretto is always subservient to the memorable aria; in your architecture, the parts are the whole.

Of all these parts the most splendid are your walls. They are like entities endowed with a spirit of their own. When one wall meets another, a round of courtship ensues. They acknowledge each other, put on their most seductive colors, seek to intertwine stretched fingers, and once happily exhausted by their play, they let themselves be bound with ribbons of moldings and interlocking rings of window frames. All this tension, this give and take, this dovetailing, this carefully orchestrated erosion of the borders to obtain a stronger bonding comes to full climax at the magic edge where the façade meets the sky. Whether turrets, crenellations, chimneys, sculptures, or mechanical equipment, you placed them there to comb the

clouds and take root in the sky, to turn the façade's hard fabric into an open lacework. For you, it was Sullivan's lesson at the Carson, Pirie & Scott department store's façade as you learned it from Wright. But then, you were already conversant with the Venetian art of evaporating full-bodied walls into smooth plaster mist. Architectural history was for you a continuum, representing diverse formal manifestations of the same basic archetypal pursuits: the joy of the sensuous wall surface, the delight in the syncopated molding line, the conflict of intersecting window figures, the supreme drama of flying beams. . . .

For you, architecture was the stage for a play, a place for the enjoyment of the senses and the mind. Even if it was a cemetery. How different you were in this regard from a gifted colleague of yours, a generation-anda-half younger than you, Aldo Rossi. For him, a cemetery, such as the one designed for Modena, is a place evocative of the inescapable: our last abode. For you, it was a place for those who are alive; where we can go to listen to murmuring waters and attend great sculptoric spectacles, as in your cemetery for the Brion family. His cemetery we visit to temper our vanities, yours we go to for a *fête champêtre*.

Do you remember that time when you were leaving the church after a funereal eulogy for a recently departed friend? You managed to remain the last in the line of well-wishers saluting the bereaved widow. Suddenly, we heard a tremendous thunder of glass reverberate throughout the church like an otherwordly belly laugh. No one would have ever suspected that it was you who, fully acquainted with the properties of flat glass, had given such a bang with your open hand to the free standing glass vitrines holding chalices and crosses. No one, that is, who observing your serious countenance would have overlooked your laughing eyes.

Farewell.

Emilio Ambasz

Museo di Castelvecchio, Verona

The legendary castle

With the supportive and sensitive museum director Licisco Magagnato, Carlo Scarpa spent six years forcefully and painstakingly reordering the historical mélange of Verona's Castelvecchio. Critique follows on p. 122.

The castle was built by Verona's leading medieval family, the Scaligeri, on the banks of the Adige River with a bridge across which to flee in case of military setback. A medieval church was incorporated into the walls and, it turns out, there were Roman ruins beneath. In the last century, Napoleon added onto what remained of the complex and garrisoned his troops there. It remained a barracks after unification, but in 1924 was restored as a museum with pieces of old Verona palaces. It was bombed in 1945. Scarpa was hired in 1958 to redesign at first the oldest section, then the whole. Right: Goldfish pond and greenery create a labyrinthine approach to the main door, punctuated by a relocated fountain and an old sundial embedded in concrete for seating. Facing page: Intersection between buildings from court (top left), and court itself (bottom left). Top right: Fountain with special step for drinking. Middle right: Doorway (above); Napoleonic façade from which Scarpa removed many "restoration" additions (below). Behind the symmetrical façade he slid a second glass, steel, and wood façade with pronounced asymmetries (detail, bottom right).

LEGEND 1 Drawbridge

- 2 Parking 3 Court
- 4 Entrance
 - to office 9 Bridge 10 Painting galleries

5 Entrance

6 Reception7 Sculpture galleries

8 Connection

to museum



GROUND FLOOR PLAN

UPPER FLOOR PLAN



and an and the line









Perched precariously between the two buildings, the marble statue of Can Grande can be seen from above and below, near and far (photos, above and left). Scarpa has invested the intersection with extraordinary density. The bridge itself is kept emphatically separate from original architecture, literally and in design (left top and bottom). One trail from the bridge leads up a treacherous stair (left middle) to a galleria with a view of the river.

George Ranalli





Scarpa's hand is felt at every level of detail on the interior. Top left: The sculpture wing from the recessed threshold to the Mackntosh-esque gate. Above: A prolecting skylit room for exhibiting mall objects. Right: Ground loor of painting gallery. Above right: Scarpa sets a doorway into in old wall as a conservator sets i fresco into a painting frame top); black and white panels set if sculpture (middle); steel easel bottom).







Critique

Like Wright, Aalto and Kahn—all of whom have been described as brilliantly out of phase with the 20th Century—Scarpa is often considered a man from some other time. Like them, he has rescued not just techniques and motifs but whole attitudes from the living histories of architecture. Thus armed, he has faced two of the most blaring failures of the modern age.

He has achieved an extraordinary coexistence involving architecture of different centuries, including this one. And this, it should be emphasized, without the crutches of "neutral" glass linkages, uniform materials, or historical "references." Further, Scarpa recaptures in his work the appealing activity, textural densities, and reassuring scale that most Modernists threw out with the bath water.

Yet Scarpa's aesthetic could never be considered pre-Modern. It is as machine-made as it is hand-wrought, as full of "magic" materials as of traditional ones. Most to the point, it is planar, fragmented, atonal, conceptual, juxtaposed, abstracted, syncopated—in other words, it is innocent of none of the formal "breakthroughs" of the 20th Century.

What Scarpa has in common with older traditions is his instinct for anthropomorphic design. More than objects, he designs experiences, incorporating lessons from diverse sources, from animism to Frank Lloyd Wright to process art. Each angle, shape, surface is chosen to engage the attention and participation of the visitor.

The elaborated narrative

From a pensile drawbridge into an encrusted gate-admittedly gifts from the Scaligeri but gifts that were not dissipated when control returned to Scarpa-the museum visitor is led on a subtle but spiced sally across the courtyard. In a noticeably short distance, he is turned no fewer than four times. He is picked up by a pink, irregularly cut stone path and deposited on a crisp, even, white one. An intriguing fountain in a pool of water with one step vulnerably isolated lures him to the left, to take a drink. Then, even more commandingly, the lead fountain, seemingly the axial focus and magisterially attended by goldfish pond and shrubbery, pulls him in the other direction. In truth, the two fountains shift focus from entire court to sod yard. But the visitor sees all this as pageantry. His path is in no relation to the axes. It meanders in and out along the diagonal, moved along by the shifting center, to the entrance.

Disjuncture and overlap are employed at the simplest level. Sometimes it is forceful the rough slabs of pink stone slapped onto the stucco archways in the sculpture wing. Sometimes it is only slightly unsettling, as in the wing above where rough stucco, gesso, and luminous Venetian plasterwork meet in the corners. Each element is given its own measure. Floors are surrounded by moats to separate them from walls. Even the passage from lobby to museum is marked by a dip in the floor under the archway.

Magister Ludi

But the great passages are when material and shape become props in a narrative to which the actors are absolutely indispensable. Immensely majestic, even solemn, Castelvecchio has been interlaced with elaborate games of hide and seek. But this is hide and seek on a grand scale.

Having no sooner entered the lobby, the visitor is presented with a chance to escape. Across is a deeply carved niche ending in a window. It is painted in a contrasting black and raised above the floor. The step is a virtual gateway, scooped underneath and hovering ever so slightly in the air. Another window niche is provided with benches like an inglenook. There are sudden skylights with glimpses of crenelation and a cut through the floor onto a Roman wall. Even to pass from one building to the other, the visitor must first go outside and become reacquainted with the entrance court.

At this juncture between buildings, the centerpiece of the museum, the medieval statue of Can Grande, is revealed—and also hidden. For while the statue is the most revealed object in the collection—it can be viewed from balcony, bridge, and the court below—it is hidden from every major circulation point (entrance path, lobby, galleries). Scarpa has said its position is the clue to the museum and made many changes in it. In the end, the small marble statue with its mischievous smile is almost as mischievously perched precariously amidst a shattering of concrete and wood, jutting aggressively into space.

In a quieter way, Scarpa creates a certain hide and seek with some of the art. Paintings, for instance, angled to catch the best light, often turn their backs to the visitor. Each requires a special trip to be seen. Conversely, other pieces are thrust into view before the visitor is prepared. By overlapping the narrative—partially blocking a doorway with a sarcophagus, suspending a statue so high that the shoulder with braided tress is seen before the whole—Scarpa shows visitors what he wants them to appreciate and throws them off balance in the process.

Reversal of expectation also motivated his interpretation of the Napoleonic façade. Redone in 1924 with symmetrically inserted windows and frescoes from old palaces, it was not to his liking. He covered the frescoes, leaving traces of original stonework, and slid a second "façade" behind—windows and doors without symmetry or regularity of any kind.

The soft undertow

If the raw tensions of the narrative sometimes suggest an ambivalence on the part of the author towards his guests, there is a running modulation nudging their complicity. It is sensory. It is Scarpa's "tasting" of his materials. It is his revival of ancient Venetian techniques of polishing metal, texturing stone, making luminescent plaster (mixed with marble dust, and pigment, and oil). And his minute attention to texture that cuts a piece of wood against the grain, leaves it unfinished, then touches it lightly with China ink.

Light in Scarpa's hands is also applied with a brush, playing on a hundred differentiated surfaces. And color makes sweeping entrances, dances subliminally, or dashes provocatively across a stage kept sufficiently neutral to register the mime. Red or pink is always inserted at entry. In the museum, color sets off the work: a gray-and-white floor for sculpture, red brick tile for paintings; green felt, mauve plaster, twinned black and white backgrounds as settings for individual pieces.

There are places to participate physically: paintings on a spindle to be rotated into the light, window shades to be adjusted, a sundial to sit on. Other details are literally changed by interaction with people, for example, the metal stands that rust sensually with constant touching.

In Scarpa's work also, there is often a sense that the building or detail is alive, at least capable, and at this moment in the process, of movement. There are bipartite display stands with enough tension between the halves to be animal. There is a staircase that seems to climb on its own—left, right, left—fending off all comers.

For whatever reason, whether because the museum is early or because it's in an ancient structure, there is little of Scarpa's own vibrating vocabulary of ornament, the Mackintosh/ Medieval gates the lone exception. Still, there is the extraordinary feeling there that the paintings and sculptures are walking around the museum as just so many other visitors.

Related, but different, is the sense that construction has been suspended midway, that objects are in the process of being made or the process of erosion. Castelvecchio—with its meticulously askew bridge, partially unveiled frescoes, half-dug canal—is perhaps the extreme example, as if we have come across an archeological dig after cholera killed the men, and the grass grew back.

Essential to all Scarpa's manipulations is accessibility. Scale is always considered in human terms. (His drawings are full of figures—in the styles of various artists.) And several of the senses are explored: sight, touch, kinesis, hearing. His architecture is the argument against reductionism. It is not just architecture of bones or entrails; it is of these and also fat, nails, skin, hair. When designing, he berated himself over each detail: "It is not yet expressive enough."

"In architecture," Scarpa said, "there is no such thing as a good idea. There is only good expression." [Nory Miller] This page: Scarpa's inserted asymmetrical "façade" dominates from inside, the earlier reconstruction from outside. Facing page: Scarpa's stand for miniatures (top); last room of sculpture wing before bridge, showing cut through in floor onto Roman wall below (bottom).



Data

Project: Museo di Castelvecchio, Verona.

Architect: Carlo Scarpa. Arrigo Rudi and museum technical office, collaborators for field supervision.

Site: medieval castle on the Adige River. Program: to reorder the museum (1957–64).

Major materials: Prun stone, marble, red brick tile, steel, brass, concrete, plaster, wood. Consultants: Carlo Maschietto, structural.

Cost: \$500,000 in 1964, including exhibit installation.

P/A wishes to thank Arrigo Rudi for his invaluable assistance in providing data information on both the Museo di Castelvecchio and Banca Popolare and in making available the photographs by Giuseppi Davanzo, Paolo Monti, and Roberto Ulisse throughout these pages.

Brion-Vega cemetery, San Vito di Altivole, Italy

His own monument

The Brion-Vega cemetery near Treviso is the acknowledged masterpiece of Carlo Scarpa's career. Ironically, Scarpa's own was the first funeral held in the completed chapel. He is buried in a sheltered niche of his choosing, ambiguously positioned between the Brion-Vega site and the public village cemetery.

The cemetery is a series of episodes. The visitor's path is largely one of thresholds and choices. Proper entry is through the village graveyard to the back where the entrance to Brion appears almost as another mausoleum against the wall (facing page, top right). A weeping willow hangs just before the open entrance and must be brushed aside like a curtain (facing page, top left). Inside is a corridor ending in the leitmotif, interlocking rings—one red, one blue. These have been compared to eyes; to wedding rings (the Brions); to alpha(a) and $Omega(\Omega)$ used to signify birth and death; to suggestions of life and death by means of hot and cold; and to pentagram symbols (facing page, bottom left). Steep steps are provided on the right and normal ones on the left. The perpendicular corridor (facing page, right middle) continues the choice: right to a meditation pavilion, left to tombs and chapel. Pietropoli sees this as a choice between the poetic life of the spirit and the normal community and family-based life.

When Scarpa accepted the Brion commission, he had already turned down the cemetery at Modena. The commission was offered by Onorina Brion after the death of her husband Giuseppe, a man who had made a private fortune in electronics. The commission was to be small, rural, familial—with considerable resources available for its construction. (The hyphenation Brion-Vega is the name of the firm, conceived under the Vega star.)

The cemetery is outside San Vito di Altivole, the village from which the Brions emanated. It is as an adjunct to the village's own cemetery.

Of the cemetery, Scarpa has made what is almost nonexistent today, an iconography. It provides, to the visitor, not so much a preview, an imagined journey into actual death, but within the tradition of the city of the dead, commentary on the journey of life. The images are disparate, often multiple, sometimes elusive: drawn from the mythic symbolism of many cultures, meticulously and instinctively wrought.

Unlike Egyptian, Chinese, or even Reformation iconographies, there is neither resolution nor the comfort/restriction of collective belief. Interpretation is left to the beholder, and I am indebted to two of Scarpa's students, Giuseppe Zambonini, an architect practicing in New York City, and Guido Pietropoli, who was also a collaborator on the project, for some of the suggested interpretations in the captions below. A critique by architect George Ranalli and writer Ross Miller follows on p. 130. [Nory Miller]





Water flows under the corridor to the pavilion side and steps here make an eerie echo. There is no echo to the left. The directions are reversed from that of poetry and mythology (where left is the moon or spiritual side), as if death were the reverse of life. The colors of the rings also reverse on the op-posite side of the wall. At the end of the corridor to the pavilion is a slice of glass that must be pushed down with all one's weight in order to cross. On the other side of the wall, operating the gate— the gate of death?—is an elaborate pulley system which seems to groan in the opening—as a corpse? (bottom right).









Giuseppe Davanzo

Brion-Vega cemetery, San Vito di Altivole, Italy





George Ranalli



A walkway through a pool leads to a pavilion of board-formed concrete and green wood propped on metal legs with knees broken and reattached (left). In the pool are a cross, a stand of bamboo, and the interlocking ringssymbols to be contemplated from within the pavilion. Through a suggestion of interlocking rings can be seen the Brion tombs and village beyond (above). The wall around the pool has a mosaic band, as if the storyline of a life (left top). The source of water is a river (Styx? The Islamic Rivers of Paradise?) that begins at the Brion tombs, first calm, then rippling, then calming again in the pool (left middle).





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Giuseppe Davanzo

Brion-Vega cemetery, San Vito di Altivole, Italy











Giuseppe Zambonini





As the contemplative pavilion is simple, the little church is a geometric extravaganza, also placed in a pool of water. Above the water, steps lead to the door; below, they decompose (left). Above: corner of cemetery wall (top left); section of wall with cross (middle left); path to church from funeral entrance (center); church's façade (top right) showing main entrance and open corner panels; corner of church's exterior (middle right); Japanese-like plaster doorways of church (bottom left).

The inner entry to the chapel is through an inlaid omega-shaped doorway (symbol of death). Within the square church, floor and ceiling patterns suggest a nave and apse along the diagonal. All color and light is concentrated in the apseskylight and alabaster windows (solid on the exterior, translucent on the interior) throw light onto the brass altar and recessed wooden ceiling (below left). Details below right: holy water fountain is made of Carrara marble inset with the interlocking ring motif in gold (top left); the church's alabaster windows from the exterior, transformed by geometric detailing (bottom left); stair detail as at Castelvecchio with separate steps for left and right feet (top right); steel ornament in concrete wall (bottom right).





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65 Progressive Architecture 5:81

Brion-Vega cemetery, San Vito di Altivole, Italy

George Ranalli and Ross Miller

George Ranalli is an architect practicing in New York City and assistant professor at Yale School of Architecture. Ross Miller teaches American studies at University of Connecticut and Yale University, writes fiction and architectural journalism.

Data

Project: Brion-Vega cemetery, San Vito di Altivole, Italy. Architect: Carlo Scarpa. Site: adjacent to small town cemetery, a short distance from village.

Program: tombs for Brion and, eventually, his widow and members of the family and a chapel for funeral services. Burial plot for the architect as well. Construction began 1970. Only one or two minor details remain unfinished.

Major materials: concrete, glass tile, marble, brass, wood, water.

Consultant: Carlo Maschietto, structural and field supervisor. Contractor: Ditta Prati.

Critique

With the obliteration of differentiated building types, Modernism in its more vulgar interpretations can be seen as tending towards a general homogenization of meaning. Various solutions have been put forward to resolve this dilemma. Overt historicism has been offered, but too often it is applied to still Modernist plans and sections. Coupled with irony, this method produces the empty rhetoric of an architecture detached from its time.

The Brion-Vega cemetery of Carlo Scarpa directly confronts the loss of meaning in architecture while escaping this severe disparity. In this, the cemetery can be compared to the Modena Public Cemetery by Aldo Rossi, also a legible narrative that explores the cultural symbolism of the city of the dead.

Traditionally the cemetery was a significant open space within the city. With the church and hospital, it was among the most important institutions. The 18th Century saw a radical change in this relationship. Mass graves for paupers and commoners were moved beyond city walls as a hazard to health. The new cemeteries were expansive pastoral settings meant to have a calming effect. A hierarchy of plan grew from the class structure that provided mass graves for commoners and mausoleums for the well-to-do.

Architects like Boullée proposed monuments of a symbolic nature, embodying ideas of the life and death of society as a collective expression. Rossi's design for Modena is within this idiom. The ossuaries, cone, and empty house symbolize the collective. In contrast, Scarpa's scheme for the private Brion-Vega cemetery is closer to the earlier model.

The commission

The Brion family came from the village of San Vito di Altivole. Although they spent most of their lives in Milan involved in their electronics company, they wished to be buried in the town of their origin. Its cemetery is in a field just on the outskirts of town, and typically, it is composed of a grid of monuments and mausoleums in the image of a city for the dead. Scarpa's addition is an extension of the existing cemetery that provides the public open space for the city. Accepting the existing city, Scarpa continues the existing wall with a new wall wrapping an L-shaped plot of land. Within this manicured lawn he has composed four destinations: a meditation platform, the Brion tombs, a family burial ground, and a chapel.

Rossi uses the object as the dominant element; Scarpa suppresses forms and increases space. Rossi's use of the cone, the abandoned house, and the ossuaries tries to replicate a relationship that exists in life between cemetery, house, and city. In Scarpa's mysterious garden, we participate in our own private thoughts, suggested and stimulated, but not determined by the implied allegorical meanings.

The extraordinary visual impact of Rossi's

cemetery is made with strong and elemental forms, while Scarpa has taken very simple forms and elaborated them with detail and care. There is an almost primal desire to touch the surface. We are moved first to our senses rather than our intellect. We can indulge in the overt beauty of the architecture, then allow ourselves to find the metaphor that would follow on a second reading.

The journey

Along the back edge of the village cemetery, centered on axis and occupying the next space for a mausoleum, is the entrance of Scarpa's compound. A willow tree is carefully draped across the entrance as an organic door. Through the willow is a hall which has, embedded in the concrete wall, white plaster shapes with brass coins at the corners. They recall the marble markers of ancient wall tombs.

Ahead, two intertwined circles, cut into the concrete end wall, allow a view into the new cemetery. The circles are edged in glass tile—one red, one blue—with the colors switching on the opposite side. One can speculate that they represent the intertwined lives of the people the monument is commemorating or, possibly also, life and death.

Perpendicular is another hall that Scarpa called the cloister. It presents a choice, to turn either left or right. To the right the space narrows. Steel embedded in the floor directs and refocuses the path. There is a door of steel and glass that must be pushed into the floor to be opened. The path then becomes a walkway that appears to be floating along the top of a pool of water. It leads to a meditation pavilion. A small platform covered by a wooden and concrete canopy, it is detailed to hide the supports going into the water, so it appears also to hover. The four steel legs of the canopy are cut, shifted, and reconnected by brass joints at the knees.

The canopy is entered by ducking. Inside, it directs the view across the meadow to the tomb. Also, in the pool of water there are certain objects to focus on. They continue the paradox of weighty objects floating. There is a row of pots with plantings coming up just to the surface as if the surface were a membrane between life and death. A cross of marble and tile floats without visible support, sitting precariously on the surface.

The discrepancies between perceived and actual form continue. A set of steel cables is stretched across the lawn's width in front of the pool. Unrelated, they seem to imply an imaginary boundary separating pool from garden, striking a note of privacy without physically closing the area off.

Filling the pool is a rivulet of water. Its source is a small trough, which feeds from a cylinder of water. Next to this cylinder is a dry cylinder with small stones in it for flowers. From this empty cup a line of concrete leads down grassy steps to a cruciform element in front of the tomb.

Giuseppe and Onorina

The tomb of the Brions has been rotated in the garden to be equally visible from both halves of the L-shaped plot. Where everything else in the cemetery is rectilinear, this is curved-in both plan and elevation. The concrete under the tombs is molded with continuous steps, which reach out onto the lawn, physically and visually restraining the thrust of the arch above. The arch, in contrast, appears to be stretched thinner and thinner as it moves away from center. On the outside of the canopy, the smooth edge gives way to a surface scratched to reveal the stones in the concrete. The underside, very low and immediate, is inlaid with green, blue, and gold glass tiles in a striped pattern that dissolves unevenly at the edges and fills the space with a beautiful green glow.

The two sarcophagi sit under the arch. The long axis is described in the floor by a checkerboard row of black and white tiles. The short axis is given by a broad band of smooth concrete. The sarcophagi are freestanding, curved at the base as if they could rock, leaning toward one another, perhaps about to touch. The boxes are white marble and black stone, unified by meticulous carving. The lush vegetation growing over the canopy suggests a grotto, a space of the earth.

Further along is the tomb for other family members, covered by a roof composed of forms that seem only precariously connected. Again Scarpa reverses expectations: a roof associated with shelter appears at any minute about to fall. It is necessary to duck into the voluminous space. A slit allows light to filter through and play against the wall.

The interior is concrete covered with lustrous black plaster. The headstones appear casually placed in no specific relationship to one another. Several, in black and white, resemble adding machines or computers, perhaps an oblique reference to the Brion-Vega company. Some have special markings, extra cuts and gouges in the forms. These are assertive and aggressive objects cast upon the ground. Both the main canopy and the family tomb allow the objects underneath to remain free while the roof forms are played against the mountains in the distance.

The little town church

The chapel is the last of the elements in the complex, set in a small pool and rotated 45 degrees. Its approach is a long passageway with caretaker's room to one side and a screen wall to the other, evoking the feeling of a colonnade. The chapel serves both family and village. There is a second entrance behind, onto a back courtyard, and another gate where caskets are brought in. This path is lined by concrete strips with grass growing in the interstices. Over time, the wagon wheels wear out the grass in tracks, leaving a visible memory of the services that take place.

The chapel is square in plan, but gives a different appearance in elevation. Inscribed within the square is a second one, one-quarter the area but higher, opening up a large pyramidal space above the altar. The gesture is heightened by running the lines of the board-formed concrete vertically in this section and horizontally in the rest. The entrance door is both the entire opening (for large funeral processions) and a smaller door within (for individuals). The larger door is of white plaster with steel strips. The smaller door is gridded on the bottom on one side and the top on the other—another reversal between inside and outside.

Within the chapel is a large, not quite circular opening into the main space. It is floored in small granite pavers. The ceiling starts to rise like a ziggurat, first in concrete, then in wood. At the top is a small skylight. Behind the brass altar, there are two small doors which, when open, let in light reflected from the water. A second exit leads across stepping stones to a space reserved for participants in the service. The space is accessible only from the chapel and is protected by tall cypress trees. The stepping stones, just barely above water, continue under the surface in broken, decomposing forms.

City of the dead

A canted wall wraps the entire complex, as if a walled city. From adjacent fields, it looks like a medieval city, lying in the landscape, shrouded in mist. At one corner the wall deforms into an open lattice of concrete, covered with ivy, migrating into that landscape.

The whole compound questions our ideas about death and, ultimately, about life. It is a series of oppositions: islands that float but in reality are on piers; heavy sarcophagi that appear to rock precariously; a taut steel cable as a fence, but easily stepped over; dry troughs next to filled ones. Our sense of what is known is challenged. Each form is mirrored by a distorted image. Walls meant to contain are canted in so the surrounding landscape —mountains that are in reality many miles away—seems to nestle in the perimeter of the garden.

Scarpa's architecture is rigorously selfabsorbed, yet in its tireless refusal to accept cliché or formula, makes us reconsider the place of death. The Brion-Vega cemetery is a thoroughly modern piece of architecture: sensual, monumental, and made with the authority and conviction of a master builder.





Drawings for the Modena Public Cemetery by Aldo Rossi.



A posthumous work



FRONT ELEVATION

Finally recognized, Scarpa began to get commissions for prominent new buildings in the 1970s. When he died suddenly in Japan, of complications from a bad fall in 1978, at the age of 72, certain works were left unfinished. Banca Popolare had begun construction in 1974, drawings and sketches were plentiful, and materials had been ordered. But construction wasn't completed until January of this year, under Scarpa's associate architect for the project, Arrigo Rudi. This is Scarpa's last work. Actually, there is a small trail of work, but this has a special prominence in an *oeuvre* that consists largely of proposals, renovations, and shops with little work ex novo. Here is a large, three-story bank annex, facing a small piazza only a stone's throw from an ancient Roman arena and Verona's famous Piazza Bra.

There is a question of attribution, of course. Scarpa died in 1978; the building not completed until 1981. Rudi, the associate who finished the job, however, had been a student of Scarpa's and in fact helped with field supervision on Castelvecchio. And there is little to be gained from an analysis of what seems Scarpa-like, and what alien in the finished work because it allows neither for experimentation by the master nor imitation by the student. The gnawing question is what Scarpa might have done. He was famous for redesigning details on the craftsman's worktable, reworking major forms in response to construction errors, and in general restlessly pursuing sensory immediacy at each more immediate moment until realization arbitrarilv put an end to the encounter. A cogent argument is that of Pier Carlo Santini, who considers the work pure but incomplete. In other words, it is a physically complete realization of a design that, had Scarpa lived, would have been "fleshed out." But what we have is what is there.

The almost lost art of facade-making

Scarpa's bank faces its little piazza with a presence and expressive tension almost unknown in modern work. As with his renovations, it grabs modern time and historical context by the teeth and holds them there.

Traditional materials are rendered in geometric abstractions and set next to I-beams. Columnar orders are cast in steel, and their slightly disjointed capitals in brass.

The basic organization is classically tripartite (here: dense wall, punched screen wall, ribbon window, and steel column loggia, with pink, white, and black glass mosaic frieze and "Doge's Palace" cornice). Yet the flatness of each plane, the abruptness of transition, and the driven idiosyncrasy are unmistakably contemporary.

A traditional play of light and shadow is sought, but through a densely packed series of layers, rather than sculptural volumes. A nontraditional asymmetry is gained not only with rhythm, but an extraordinary proliferation of shape. Geometric irregularity is developed beyond asymmetry in deviations from pure form. Pieces are added to and subtracted from the squares to harden the impact of their geometry. The circles are actually deformed. Two centers, pulled apart by the slight width of their linear ornament, determine an ellipse that struggles visibly toward circlehood, imparting an extraordinary presence.

The episodic quality of the façade is reinforced by the unrelenting clarity with which elements are kept separate. No one motif seems aware of its fellows. The bays of the loggia follow a different rhythm from that of other windows. The projecting square boxes shove right up into their own string course. The scoops in bronze, arranged as a stand-in for the capitals of the columns below, don't quite line up with either one, but hover expectantly in between.

An emphasis on the points of intersection also holds forms apart. Masonry notches precede the buildings to each side. A piece of molding is detailed, as it turns a corner, with a secondary pattern like stepped cinches that A complicated rhythm of shape, shadow, and ornament in an almost classical tripartite organization, the façade faces old Verona on Piazza Nogara (left top); details (left middle, left bottom, and right top). The front door (right bottom), a study in geometric counterpoint.











Banca Popolare, Verona





all but sever the corner from each leg. Even flat windows set flush in the wall are framed in a third material to set them off.

What the episodes share is a part in the pulsating counterpoint of the whole. The marble channels running down from the ellipses strike a balance with the upward thrust of the masonry boxes, while both thrusts establish a verticality in subtle disobedience to the strong horizontal banding. Minor vertical notes are struck as well by the slit windows, notches, columns, and delicate interplay between the cornice pointing up and molding pointing down. A particularly active locus within the façade is the doorway. Surrounded by pieces locked precariously in conflict, the brass doors are alternately squeezed, pulled apart, and so intertwined with the window above and moldings to each side that the framing itself seems more an uneasy truce with neighboring states. Red marble appears here—as red in some fashion almost always does at Scarpa's entrances—to mark the place and, perhaps, raise the blood for adventure.

Inside, the same exacting concentration on edge and connection marks each step from entrance to stairways, down prominent cor-







Scarpa's differentiations of material, form, and pathway permeate every crevice. Entry to second floor looking toward the large glass window (above). Marble staircase detail (left). Bottom of stairs (far left). Facing page: magenta elevator wall (left) and central corridor (right) on managerial floor. Ceiling panels and elevator wall are of plaster mixed with oil and pigment, applied layer on layer in traditional Venetian manner. Concrete columns have concrete exposed for most of the shaft, but bottom sections are covered in steel as if a kind of base or even wainscoting. A brass ring near the top suggests something like a capital. Columns are connected to floor and ceiling by intermediate forms seemingly etched out of these surfaces by line, change in material, and color.

Banca Popolare, Verona







Data

Project: Banca Popolare di Verona Head Offices. Architects: Carlo Scarpa with Arrigo Rudi (Verona). Site: facing a piazza in the center of the old city not far from a Roman Arena, replacing two early 20th-Century buildings. Program: addition to a complex of buildings that make up the bank. It consists of a subbasement, a half basement (the exchange floor), a mezzanine (in the front), a managerial floor, and, at top, a secretarial floor. In the rear is a court underneath which is mechanical equipment for the whole complex. Under construction 1974-81. Major materials: concrete, marble, brass, mosaic, steel, plas-

ter, leather. Consultants: Renato Scarazzai, structural; Bruno Moresi, insulation; Giuseppe Anini, HVAC. Photography: Giuseppe Davanzo.



The courtyard is open space for the whole complex, and its elevation expresses its connections to the other buildings—in the intricacy of the corner adjoining the old bank (below) or the airplanelike skywalk. Many details of the façade are repeated here, including the elaborate cornice (left top), mosaic band, and bronze inserts (left bottom).



ridors, and even within important offices, where wood cabinetry is inlaid with other woods in a complicated striping as it approaches the office door. Ziggurat shapes are inserted in marble, bits of brass catch the sunlight, and panels of plaster add mauve, blue, magenta, red to the palette of raw materials.

Details are generally bipartite in design, a kind of symmetry alongside the asymmetry, but always with each side pushing or pulling actively against the other in a permanent but animated state of suspension. It is a characteristic, appearing already in the display stands at Castelvecchio, developed throughout Scarpa's work. Reminiscent of Wright, space is developed in relationships of compression and release, with light fixtures as important markers. The court elevation is an extension of the façade with two departures. One is a projecting copper sky tunnel connecting across the court. The other is a complex meshing of the new bank, the old bank next door, and the courtyard, with the screen wall cut away to reveal a glass-enclosed stair. (The stair, in turn, has a blue ceiling, drawing it more closely outdoors.) The steel beam above the loggia loses its frieze and runs into the older building. The level of detail is, as always, intimate. When ornament changes pattern, it also changes material; when steel column be-comes base, it becomes brass; even the arrangement of the bolts holding it down is part of the overall design.

With Scarpa it is form that is abstract. Experience is concrete. [Nory Miller]

Scarpa as educator

Guido Pietropoli

Carlo Scarpa was the kind of architect whose strength of vision and commitment called into question the normal practices of both profession and university.

Pietropoli studied under Scarpa and was later his teaching assistant at Instituto Universitario di Architettura Venice. He was also one of the collaborators on the Brion-Vega tomb and an extension to the Convent of San Sebastiano in Venice. At University and in private life, Carlo Scarpa was condescendingly known as "il Professore." Neither educated as an architect nor licensed, Scarpa had actually been dragged before judges under the accusation of "abuse of title" when he won and accepted the In-Arch 1960 prize for his Olivetti shop in St. Marks Square. [He was subsequently acquitted]. Despite the implication, I believe the name "master and educator" is appropriate to make a point of his uncommon and littleknown talents as a teacher: his great receptiveness in learning and his generosity in giving.

In 1926, at the "Accademia di Belle Arti" in Venice, he received the diploma of Professor in Architectural Design. With this title he became the assistant of Guido Cirilli in one of the first faculties of architecture in Italy. [Before that there were only schools of engineering.]

For many years, he refused out of pride to submit to the formalities of architectural education, this shown in his words: "If I am good give me the *honoris causa* (honorary title); I don't sit farcical exams like my colleagues!" It no longer seems to me an incomprehensible demonstration of vanity, but a firm decision making clear the difference between a practicing architect and one only by title.

It was in August 1969 that I went for the first time to Scarpa at Ásolo. I had a roll of drawings and a small clay model in my suitcase. I was used to professors and assistants who made their students feel like cretins: never drew anything, continuously quoted from books, looked often at their watches, and made logical speeches that didn't allow you to draw two lines when you returned home.

Scarpa criticized several things. Others he said were difficult to resolve. He took a sheet from a sketch pad, drew several plans, and illustrated to me with quick notes the references which he was proposing to me. He amused himself in taking apart the clay model and putting it back together again. After two or three hours he said, "That's enough, I'm hungry! Phone me."

His role as educator occupied him for more than 50 years and though at great expense of time, it managed to keep him young, modest, and attentive to human psychology. If among some of his pupils there were produced "Scarpismi," it was not his fault, but due to their being so obsessed by their master's architecture that they could not find their own personal forms of art.

In the 1970s I had the opportunity of following design courses from the other side of the fence—as assistant. I was often struck by the way Scarpa presented himself to his students, the great naturalness and simplicity of his expressions. During his lectures he never quoted recent books on criticism or planning. He didn't use slang. In fact he was very exact in technical and traditional terminology. He had an elliptical way of speaking that demanded continuous attention from his first words, which seemed inarticulate at the beginning, but became extremely rich in references and relevant details toward the end.

Many students did not return after the first few lessons because they considered him a mad simpleton. Others remained for what they saw as artistic vanity. Only a few felt his passion. Blinded by reality, they did not realize that the lamp of the poet enlightened much more than the critic's book, the urban politics essay, or the self-assurances of professors, professionals, nationalists, democrats, socialists. . . . "These have neither secrets nor strength. Their teaching is like bread from the oven which is devoured and fills you up just for a day. But we cannot sow flour and we mustn't crush the seeds." (W. Goethe-Wilhelm Meister in his years as an apprentice-Bk VII).

In his last years, although he was no longer obliged to continue teaching, he continued in his house at Vicenza to follow the theses of students and put some of them up in his studio for many months. We often protested at the precious time it took away from the projects which, finally in his last years of life, he was asked to design. I personally think that in his heart he felt that there was no time to choose areas of work, so it was necessary to sow seeds everywhere without delay.

"I came into architecture in king-like fashion and my icon is ornamented by pictures of many protective saints: San Francesco (Borromini and Lloyd Wright); San Carlo (Jeanneret); San Andrea (Palladio); and then Leon Battista, Alvaro, and San Filippo (Brunelleschi); but above all, San Donato or better known simply as Donatello!" Quotations like these come to mind and bring into evidence the truth of a vocation carefully followed and conveyed into experience. I often think of Hofmannsthal's aphorism: "Profoundness is hidden. Where? At the surface."

SOM at midlife

As SOM changes its leadership, it continues to attract major commissions to expand. Where growth takes the firm, will form follow?





Above: Wonder Bread pavilion, New York World's Fair, 1939; Oak Ridge New Town, Tn, 1942; SOM meeting, Santa Fe, c. 1950: (last row, l. to r.) Gordon Bunshaft, John Rodgers, Marshall Sampsell, Walter Netsch, Arthur Christy, Jack King, William Brown, Frederick Kraft, Walter Severinghaus, Edward Mathews, and William Hartmann; (front row, l. to r.) Louis Skidmore, Elliott Brown, Robert Cutler, Nat Owings, James W. Hammond, and John Merrill, Sr. Opposite: Toffenetti's Restau-

"I think we've just about reached our limit in physical size. From our four offices we can blanket the country, and we don't want or need any more. As for the partners, I doubt very much if the group will ever exceed 16 or 20, and most of the new men coming up will be replacements for us older guys." So spoke Nat Owings of Skidmore, Owings & Merrill in 1958. Only the last part of the statement has proved true. In 1958 the firm had 14 partners and 1000 people working in its four offices. In 1981, 34 partners run nine offices and 2000 employees, which include 93 associate partners and 212 associates. In 1980, Engineering News Record estimated that SOM's billings for the previous year totaled \$35 to \$50 million in construction dollar volume. While SOM won't divulge the actual current figures, Gordon Wildermuth, managing partner of the New York office, observes the estimate is a "little low." After all, the Jeddah airport (P/A, Jan. 1981, p. 120) costs several billion dollars, only one of a few such projects on which SOM is working. Whatever the figures, according to ENR last year SOM was second only to CRS, Inc., among architectural firms, and still is the largest privately owned architectural office with this kind of volume.

The founding members of the firm, Louis Skidmore, Nathaniel Owings, and John Merrill, developed a group of offices that evolved into the paradigm of corporate practice for 20th-Century architecture. Their organization, which included the establishment of self-contained offices in Chicago (1936), New York (1939), San Francisco (1946), and Portland (1951), was skillfully fashioned to allow the firm to thrive when the founding fathers were no longer around. And now the succeeding generation of SOM partners-Gordon Bunshaft, Walter Netsch, Walter Severinghaus, Roy Allen, Whitson Overcash-has retired, and others like Myron Goldsmith, William Hartmann, and Charles Bassett are soon to follow because of the partners' mandatory retirement age of 65.

Yet SOM pushes onward. With the exception of Bruce Graham, most of the design partners in SOM belong to yet another younger generation. A good half of these partners, in charge of design, management,



and engineering, range in age from their late thirties to their mid-forties. The average age of all the design partners is 45. A few smaller offices are headed by design partners quite a bit under the average age: the 150-member Houston office, for example, which opened in 1976, is run by 37-year-old Richard Keating; the 150-person Washington office, which opened in 1967, is now directed by architect David Childs (age 40) and planner Walter Arensberg (42). Other offices that have been spawned in the last decade include the 60member Boston office headed by Peter Hopkinson, started up in 1971; the 60-person Los Angeles office, established in 1974; and the 150-person Denver office, which officially opened in 1977. There is even a 15-member office in Saudi Arabia to administer the Jeddah project and other work.

The question that now faces SOM, more then ever, is should a large firm continue to grow? Can it go on producing large-scale work of "quality" design? As Robert Gutman has observed (P/A, "The Future of Architecture" issue, June 1977, p. 55), the profession is becoming increasingly divided into two camps: a small number of large corporate offices who are assuming control over the largest percentage of architecturally designed work, and the large number of firms small in size, doing small-scale buildings, and a proportionately smaller percentage of architecturally designed projects.

The split has affected design. Large-scale work has come increasingly to signify the ordinary, commonplace, and mediocre in architecture; small-scale design work more than ever may be the only occasion for seeing innovative architectural form. Of course the level of risk-taking allowed in small-scale design in contrast with large-scale work must be

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taken into consideration. And joint ventures do allow new architectural thinking to permeate the built world—as Michael Graves's Portland office building (P/A, May 1980, p. 25) that he is doing with Emery Roth & Sons illustrates. Nevertheless, the trend definitely is there: large firms that produce quantities of buildings, with the efficiency with which Doubleday publishes and sells books, have seized the day. As a wider distinction has developed between literature and fiction, the same holds true for architecture and building.

Smooth management

While SOM designers constantly talk of their avowed interest in design ("Design is the thing we care most about" says Maris Peika, young associate partner in design for the Los Angeles office.), other qualities of SOM dazzle. SOM's management skills and its ability to deliver a product with a high level of competence and according to a predictable standard have long stood out. As the firm has expanded, it has made shifts in the organization to strengthen the standards while it accommodates that growth.

Tom Eyerman, management partner in the Chicago office, recounts three periods of the firm's organization leading to the current one. In the first phase, 1936 to 1948, the firm could be characterized as an entrepreneurship, led by Nat and Skid and John Merrill. These were the days of gutsy selling convincing companies they needed an SOM interior or building. But it was their landing the job of designing and planning the defense community of Oak Ridge, Tn, that gained the firm entry into major leagues in the 1940s.

From 1948 to 1960, the firm really began to establish itself as a group practice. The approach sharpened up somewhat as the firm organized itself into departments according to the various phases projects underwent from design to construction. Most of the work reflected the tastes and attitudes of the clients, culled from the Fortune 500.

These were the years that the New York office came to the fore. Started by Louis Skidmore in 1939 with an interiors assignment, it emerged as the major SOM office when Gordon Bunshaft and Walter Severinghaus began obtaining a number of assignments following the completion of the landmark Lever House in 1952.

The next stage, from 1960 to 1972, saw the emergence of the Chicago office, with the impact made by Walter Netsch (Air Force Academy, University of Illinois at Chicago Circle) and Bruce Graham (Hancock Tower, Sears Tower), in tandem with structural engineer Fazlur Khan. The departmental setup by this point had evolved into project team organization so that one group would carry the project all the way through from start to finish. In 1972, Bruce Graham initiated the studio concept for the Chicago office. Here several projects would be executed by one group, rather like a small office, a method of organization adopted not only in Chicago, but also in the Washington office. The other offices still adhere to the departmental division where project teams are led by the usual two partners, one for design, the other for management.

Eyerman suggests that in recent years (1972 to 1980) the company has been moving from the entrepreneurial format—of making buildings—to a service organization that can tackle a range of problems, such as planning and research, related to building. Instead of a vertical management structure where the hierarchy assumes the shape of a pyramid, the service nature of a business implies a horizontal structure where the hierarchy of personnel takes on the shape of a trapezoid.

The choice of a trapezoidal distribution of power should do more than allow unimpeded growth, presumably until the firm successfully penetrates just about every crevice of the built world. It also will enable architects in the firm to become more involved with its management.

Traditionally, twice a year all the general partners meet; two more times they meet with associate partners. Up until last year, a nine-man committee, carefully representing each discipline and each region, would meet in between to discuss policy questions. Last May, however, the partners decided that more committees needed to be formed to include more partners in the firm's affairs. Besides the steering committee, there are now committees to address such issues as project management, technics, engineering, longrange planning, civic and professional services, financial services, and so on. Design meetings are now structured to include selected young architects in the discussions.

In March, the Design Committee staged a two-day meeting in San Antonio to discuss housing. The choice of the topic was unusual, since the firm doesn't have a lot of housing work right now, with the exceptions in Chicago and Calgary. The design partners from the various offices converged, however, to hear presentations by the young architects and to lead discussion groups. The remarkable range of presentations tended to divide up along regional lines: for example, presentations by East Coast offices analyzed historical examples for types of housing forms applicable today; the Midwest offices concentrated on more pragmatic issues like housing needs, possibilities of supply, and so on; while the West Coast offices gave more freewheeling, intuitive presentations about the sort of images people had about housing, or the regional forms found in California.

The comments from the partners themselves were also enlightening: Marc Goldstein (San Francisco) quoted Viollet-le-Duc about "rational" architecture requiring both functional and emotive content. Bruce Graham called the architects to action, stating that they have the power and the ability to build cities; they know how to do it, and therefore











J. Alex Langley Progressive Architecture 5:8















they should not just talk about it, but go out and do it. David Childs (Washington) suggested that architects could form ateliers to execute small housing projects, adding that part of the failure of housing in the past two decades has come from a misunderstanding about the kind of building scale appealing to the occupants.

Organization by conflict

Obviously diversity of thought occurs within the confines of SOM. While the new committee structure should foster dialogue and discussion, Tom Eyerman worries that the committee membership will become solidified. Since no mechanism exists for changing members, power lines could harden. Eventually, little pyramids will sprout up along the top of the trapezoid. Gordon Wildermuth, (management partner in the New York office) does not agree, contending that the committee structure is still too new to think about sclerosis.

Communication and cooperation between offices seems more highly valued now than it was in the past. Still, the branches will go after the same job or find work in the same city. The Chicago office is designing a highrise on New York's Third Avenue, while the New York office is doing another tower down the street. Both Chicago and New York, however, are pooling their talents for a housing project being planned in West Midtown Manhattan. And the New York office is working with the Portland office—one doing offices, the other housing—in Calgary.

Then too, are the many interoffice consultations that occur: LA may consult Washington on matters of transportation, and any of the offices may use Chicago's engineering capabilities. All of SOM makes use of the computer system, centered in Chicago, although San Francisco has its own network for the West Coast. Four different systems enable SOM to use computers for working drawings, engineering calculations, and graphics. The firm is even able to compute shadow studies for its highrises—a service capability many city planning agencies could well use.

More is discussed at partners' meetings than how all the offices can cooperate with each other. For one thing, they provide an opportunity to review each other's work-a staggering amount usually, recalls Chuck Bassett. But much of the discussion centers on the architects who will be made partners next. General partners must be voted in unanimously. Most of the general partners have gone through the ranks of becoming an associate-a decision made on the local level-then an associate partner, before being put up for general partner. When asked how an aspiring architect makes it known that he or she would like to be considered, Graham replies that if an architect has to lobby, he isn't partner material. Most partners agree with Raul de Armas's assertion that you will be spotted "if you are worth your salt." (After all, they were.)

Still, 400 to 500 architects are hired each year. The pattern that prevails among the new generation of partners is tenure combined with youth: most of the general partners have been with SOM 15 to 20 years, almost from the time they got out of architecture school. Not everyone who hangs in there makes it. But all who have made it have hung in there. And it is *very* rare to see a newcomer brought in at a top level. While SOM stresses putting young architects in important positions, most of the current partners now have a good 20 or more years of career life left at SOM—another reason many of the growthoriented partners want to see the firm expand. The absence of women at the general partner level is also seen as being rectified by making more room at the top.

Attracting the young

Growth still remains a troublesome issue for many at SOM. Some partners think that the firm has expanded enough; if it gets any larger, the principals will lose contact with the employees. Yet attracting younger talent remains a common concern. The firm is still trying to get over its past reputation of swallowing up young architects and placing them on working drawings on one project for innumerable years. (An unfounded reputation, according to partners interviewed.)

Besides the in-house activities, the firm has been reaching out to the architectural community through the SOM Foundation established in 1980. Already the Foundation has given grants to a number of architectural organizations, such as San Francisco's Western Addition, The Chicago Architectural Foundation, and the National Building Museum being planned in Washington. As if to spot more efficiently up-and-coming talent, the SOM Foundation has established a traveling fellowship for students nearing the end of their architectural graduate school training. The grants, reasonably hefty, go to applicants from a limited number of schools that SOM considers good. They say the list will change from year to year.

Design image

As far as the organizational image goes, one often wishes cities or countries could run as smoothly as information is retrieved and presentations made at the various SOM offices. It is not the false patinated-in-plastic efficiency of an airline service. At SOM one senses one is dealing with very focused, organized people. That in itself can be scary.

Design is another matter. The designs the firm turns out are uneven. In spite of the partners' enthusiasm about the work, such as Donald Smith's avowal that "SOM has the best talents and highest quality buildings," a good number of the buildings are frozen in a geometrical mold.

The firm's attachment to clustered geometries that are best comprehended from aerial perspective and to towers that are chiseled, chamfered, cut, and carved is much in evidence. The idea that people experience buildings on foot, looking straight ahead or slightly up, doesn't seem to bear much weight with

these designs. Still, a number of buildings stay within the Modernist approach that SOM helped pioneer and produce creditable results. For example, the Commercial bank of Kuwait in Saudi Arabia, designed by Michael McCarthy (New York office) proposes a streamlined glass-and-aluminum tower handled with elegance. Then too, the linear and articulated curtain wall of the Modernist building Raul de Armas is adapting as part of an energy-conserving experiment with Alan Chimacoff and Princeton University's School of Architecture, merits attention. Both of these projects are polished refinements of a known type. They may be "predictable," but they seem convincing testaments to de Armas's contention that "predictable buildings can be great.'

Still, it is no secret that in large-scale design work SOM has lost ground in the last decade or so to other firms such as I.M. Pei & Partners, Philip Johnson/John Burgee, and Cesar Pelli. And these firms often get outdistanced in the popular press by the smaller offices of Hardy Holzman Pfeiffer, Michael Graves, Gwathmey/Siegel, and Richard Meier. This situation exists in spite of SOM's landing four awards in the P/A Awards program this year.

Individuality versus anonymity

The weakened design reputation can be explained in part by the issue of individuality versus anonymity. Architects who are going to risk incurring professional and public wrath by braving new formal terrains 1) want to do it on their own and 2) are forced to do it on their own. Yet in these smaller offices one notices a spark, the sense of being at the edge of chaos or delight, and the temperamental diva quality of the leadership, all of which seemed to have existed in the earlier days with Owings and Bunshaft. In the 1950s you were dealing with individuals-in their manner and architecture-SOM's corporate style to the contrary. In the 1980s, individuals such as Graham remain, but the others, such as De Stefano, Adrian Smith, or Larry Doane, have not emerged as known architectural identities-vet.

Not only should these identities emerge, in order to give the personal imprimatur to a arge firm, but it will probably happen anyway, if the current work, much of which is under construction, turns out to be at the quality level of a Weyerhaeuser headquarters building.

But obstacles to that formulation of "high quality design," obstacles common to most irms, especially large ones, do crop up. The irst obstacle is that formally this period is so lifferent in its thinking from the decades in which SOM created its memorable work. SOM took the basic tenets of Modern rchitecture—its structural and functional leterminants of form—and made those into a pervading architectural statement without losing the subtleties, and in some cases improving on them. But the ideas about meaningful architectural form have shifted away from those tenets, and here SOM is in trouble. The Modernist prototype no longer exists as a viable model to adapt or refine. New kinds of architecture are called for, and the formulation must go beyond chiseling and chamfering, or designing buildings in the shapes of triangles

On top of that, the enormous amount of work the firm has been attracting doesn't always permit a great deal of time to be spent on working out different kinds of design ideas. As one partner recalls, Bunshaft would personally involve himself in every single detail. But he usually worked on three or four projects at one time. Now design partners may be working on three times that number. SOM can still guarantee the client that what he sees in the project presentation is what he gets in real life. But the creative thinking that addresses issues of, say, contextual form, embodying emotional content, doesn't always appear to be on the schedule.

Another problem that affects SOM—and other architects in their working procedure —is the lack of a truly critical dialogue among partners on their own designs. The New York office must be applauded for arranging a symposium last winter with some highly talked about architects—Michael Graves, Robert Stern, Jorge Silvetti, and Steve Peterson. But a symposium is too soft. Critical jurying needs to be made a part of the in-house design process. Partners at SOM vary in their estimates about how much they now discuss each other's work. But most concede such reviews happen very informally, or not at all.

Designing buildings, of course, is not SOM's only concern. As it expands into its service role, it has set its sights on cities, infrastructure, large-scale planning. Jim De Stefano of the Chicago office points out that this overall conceptual approach, where major buildings as such are not the goal, is indicative of the direction.

The planning work of the San Francisco, Washington, and Boston offices represents the firm's comprehensive approach in this area, as does the Baltimore Transportation Planning Review project initiated by retired partner Nathaniel Owings and led by Peter Hopkinson (Boston). With regard to these efforts, Owings recently commented that though results are not always visible, he feels happy when SOM can stop something like an expressway going through the Baltimore Inner Harbor.

The architecture of SOM, particularly its skyscrapers, is another matter. Owings contends: "SOM is taking orders, not creating new ideas. We are putting up office building after office building. Until recently, the firm was praised for its quality. I don't know if we still have that quality. We are doing piecemeal work on a rational basis and getting paid for it." By these comments, Owings hastens to add, he does not mean to be "critical" of the firm. "It is just where I part from SOM." Meanwhile, the next generation moves on. [Suzanne Stephens]









Drafting room, 1940s; drafting room, 1960s; Inland Steel, Chicago, 1958; Beinecke Library, Yale Univ., 1963; IIT Gym, Chicago, 1967; Mauna Kea Hotel, Kaunaoa Bay, Hawaii, 1965; Hancock Tower, Chicago, 1970; Marine Midland Grace Trust, New York, 1967; Bank of America, San Francisco, 1969; American Can, Greenwich, Ct., 1970; Kitt Peak Observatory, Pima Co., Az, 1972; New Jeddah International Airport, Saudi Arabia. 1977-82.

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SOM Portfolio

On the following pages are examples of current SOM work, a small sampling of an enormous list of jobs in which the firm is involved. Ranging in scale from huge planning projects to a house in Aspen, the spectrum can only be hinted at here.

Of the current highrise crop, the three shown at the top of this page were conceived in the Chicago office. They are: Three First National Plaza, Chicago (left), One Magnificent Mile, Chicago (center), and CityPlace, Hartford (right).

Three First National is a 57story granite-clad office structure, sawtooth in plan to yield 9 corner offices per floor, entered through a 9-story glass-enclosed atrium. It will contain 1.5 million sqft, and should be completed later this year. It is a development by Gerald D. Hines Interests. In charge of both this project and One Magnificent Mile is Richard Lenke; in charge of design for both is Bruce J. Graham.

One Magnificent Mile, a development for The Levy Organization, is also 57 stories, but multi-use. Three levels of commercial space are at the base, with 16 levels of office space topped by 190 luxury condominiums. Its expected completion date is 1982.

CityPlace, a development of Urban Investment and Development Co., Chicago, and Bronson & Hutensky of Bloomfield, Ct, is a two-phase complex. The first phase is a 38-story granite-faced tower with a gross total area of 957,000 sq ft of retail, commercial, and office space. Phase two is a 12-story building with a gross area of 220,000 sqft. In charge of the project is Robert Diamant: in charge of design, James R. De Stefano.

An 8-story retail and office complex in Des Moines, Ia (middle right) comprises three wings around a skylit atrium. In charge of the project is Robert Diamant; in charge of design, Adrian D. Smith.

Renovation and construction on the Builder's Building in Chicago (bottom right) will total 1,097,500 sqft in a two-phase project. Included is a 343,000sq-ft addition extending office areas and building services. Robert Diamant is in charge of the project, Adrian Smith of design.

















Certainly among the most poetic projects being produced by SOM today are the three shown on this page. One of three buildings for Banco de Occidente in Guatemala City (above and left), Zone 1, the headquarters, assumes a superb restraint of Barragán-like quality. Traditional colors, materials, and textures interplay with light, shadow, gardens, and fountains to create a serene environment. Bruce Graham was in charge of the project, and he and Adrian Smith were in charge of design.

For King Abdul Aziz University in Makkah, Saudi Arabia (top three photos, far left), SOM designed a master plan with separate campuses for men and women, as dictated by custom. The main pilgrimage road from Makkah to Jeddah runs between the dual campuses and dependent housing. In charge of the project are Fazlur Khan and William Drake, Jr., and Bruce Graham is in charge of design.

A new headquarters for Grupo Industrial Alfa near Monterrey, Mexico (bottom left), has a barrel-vaulted galleria connecting executive, office, and cafeteria functions. Thomas Eyerman is in charge of the project, Bruce Graham of the design.



SOM portfolio

Allied Bank Plaza, Houston (top left), is 71 stories above grade and approximately 2 million gross sq ft. Its tunnel level below grade connects directly to Houston's downtown tunnel system. The blue-green curtain wall comprises 40 percent vision area and 60 percent insulated spandrel area. It is a project by SOM with Lloyd Jones Brewer & Associates for Century Development Corporation. In charge of both project and design for SOM are Richard Keating, Houston office, and E. Charles Bassett, San Francisco.

First Canadian Centre in Calgary (top right) is two irregularly shaped towers, 63 and 42 stories, of white granite. At the base are a landscaped plaza and a triangular 3-story Bank of Montreal pavilion. Upper office space will have sloping glass roofs, topping off the 2 millionsq-ft complex. In charge of the project is Gordon Wildermuth, and in charge of design, Donald C. Smith; both are of SOM/New York.

Two New York projects by SOM/New York are 780 Third Ave. (center left) and Park Avenue Plaza (center right); in both, Leon Moed is in charge of the project and Raul de Armas, of design.

A 48-story tower between 48th and 49th Streets, 780 Third is a tall, slender shaft responding to zoning restrictions. In consultation with Fazlur Khan, SOM/ Chicago, a concrete tube with diagonal members was designed to distribute wind load.

Park Avenue Plaza, located behind McKim, Mead & White's New York Tennis and Racquet Club, takes cues from its historic neighbor. The center slot is the same width as the arched opening on the club, and angled glass façades are designed to reduce the new building's presence from Park Avenue.















SOUTH NORTH

Two projects for Calgary are being developed by Eau Claire Estates Commercial Development. SOM/New York is doing the commercial area (opposite page, bottom) and SOM/ Portland is designing the housing (this page, bottom). In charge of the commercial project is Gordon Wildermuth, with Donald Smith in charge of design. In charge of the housing project is David Pugh, and James Christensen is in charge of design. The first commercial stage will be a 50-story tower; the first and second floors will be retail space, connected to adjoining blocks by bridges.

Prudential Insurance Company commissioned Alan Chimacoff and the School of Architecture at Princeton University, along with the school's Center for Environmental Studies, to develop an energyconserving office building. Chimacoff and the school formed a joint venture arrangement with SOM and hired Flack & Kurtz for the engineers. Two 3-story buildings, one designed by SOM's Raul de Armas (rear of photo, top left), and the other by Chimacoff (foreground) illustrate two different architectural approaches to harnessing solar energy. Gordon Wildermuth is in charge of the SOM portion, Raul de Armas the design.

Energy concerns were also brought to bear in the new Irving Trust Operations Center in New York (center right), with the above partners in charge for SOM. A central atrium divides two mid-rise elements of 23 and 16 stories, and upper-level glazed areas house employee dining facilities.

Stainless steel façades on the Commercial Bank of Kuwait (center left) are punctuated by recessed linear ribbon windows. Office and banking areas of the 13-story facility face two sides of a skylit atrium and banking hall. Translucent marble forms the other two sides. John Winkler is in charge of the project, Michael McCarthy, the design. Another project in the Portland office is a highrise condominium tower in a prestigious suburb of Singapore (bottom left). In plan, it is a form consisting of two opposing triangles. In charge of the project is David Pugh, with Jim Christensen in charge of design.

The remaining work on these two pages is from SOM/San Francisco. The plan (right) shows three projects, the San Francisco Performing Arts Center (left in plan, top left in photo), the State Office Building (right plan and photo), and an addition to the San Francisco Opera House (left center in plan).

Addressing the Civic Center, Performing Arts curves as if to capture the monumentality of the older buildings; and in later development, it seemed reasonable that the State Office Building do the same, to bookend the complex. The diagonal relationship with City Hall was a strong design determinant. In charge of the Performing Arts project was John O. Merrill, with Edward Charles Bassett in charge of design. Walter H. Costa is in charge of the State Office Building project, and Lawrence Doane is in charge of design.

Part of the celebrated campus that houses the headquarters of the Weyerhaeuser Company, its newer Technology Center (bottom right) occupies a separate portion of the 480-acre site. Consisting of three connected parts, the facility ranges from a glass pavilion to a windowless (lab) rectangle sheathed in cedar. Open office planning allows views of the wooded site in the pavilion. In charge of the project was John Merrill, and Edward Charles Bassett was in charge of design.




As in the San Francisco Projects, the new City Hall for Columbus, In (top left and plan), was designed for a diagonal thrust toward Main Street and the County Court House. The part of the site not occupied by the building's right triangle is planted with an orchard of trees beneath which is police and public parking. John Merrill is in charge of the project, E. Charles Bassett, the design.

Two projects for Crocker National Bank reflect different design input. The San Francisco headquarters (center left) is 38 stories above grade, a total gross square footage of 959,000. A major older office building and banking hall will remain, connected to the new project. A 3-story block-long shopping galleria with a continuous skylight will accent the development. In charge of the project is John Merrill, in charge of design, E. Charles Bassett.

Crocker Center in Los Angeles (bottom left) is on the highest site in Bunker Hill. It comprises two granite-clad towers, sited out of consideration of its location as well as various transportation facilities and systems. A glazed atrium joins the towers at the base. In charge of the project: John Merrill. Marc E. Goldstein is in charge of design.

A project of SOM's Urban Design and Planning Department, an analysis and recommendations were made concerning the preservation and enhancement of the environment around the State Capitol in Sacramento (drawings left). It set forth guidelines for accomplishing growth, while maintaining natural and man-made existing features. In charge was John Kriken.

2 Progressive Architecture 5:81

SOM portfolio

First Federal Savings and Loan, Little Rock, Ar (right and center right) contains 157,800 gross sq ft, including a 7-story atrium 90 ft square, to be finished in the near future. The building is coated aluminum with reflective glass except for the clear glass atrium.

Both First Federal and the Park Lane Condominiums, Houston (center left) were designed in the Houston office of SOM; Richard Keating was in charge of project and design for both. The condominiums are extremely unusual in both program and budget, since there will be only two 3500-sq-ft units on each of the 15 floors. They will have 13-ft-high ceilings in most areas and will feature step-down rooms and two terraces each. One of the terraces will be two stories high, and large enough for hot tubs or even small swimming pools, if desired. Owners will buy the units unfinished, at cost. Tennis courts and parking underneath the building will be bermed and will raise even the first living level above the trees.

Designed by the Los Angeles SOM office, the South Coast Plaza in Costa Mesa, Ca (bottom photos), will be a retail/office complex. It consists of a 15-story office building, a 3-level department store, and ancillary retail areas, tied together by an 11story atrium. The atrium is glazed with a stepped clerestory on the southeast and a sheer clear-glass wall on the north. A bridge across a major roadway will connect with a large office complex. John Merrill is in charge of the project, and E. Charles Bassett and Maris Peika are in charge of design.





















SOM partners

Chicago: James De Stefano, Robert Diamant, William Drake, Thomas Eyerman, Myron Goldsmith (consulting partner), Bruce Graham, Parambir Gujral, William Hartmann, Robert Hutchins, Fazlur Khan, Richard Lenke, Albert Lockett, Roger Seitz, Adrian Smith, John Turley.

New York: Raul de Armas, Michael McCarthy, Leon Moed, Donald C. Smith, Gordon Wildermuth, John Winkler. San Francisco: Edvard Bassett, Walter Costa,

Lawrence Doane, Marc Goldstein, John O. Merrill, Jr. Portland: James Christiansen, David Pugh. Washington, DC: Walter Arensberg, David Childs. Boston: Peter Hopkinson. Los Angeles: Richard Ciceri. Houston: Richard Keating. Denver: Kenneth Soldan.



For Harvard Square in Cambridge, SOM/Boston has designed a new subway station, using some existing elements (top photos) along with landscaping and traffic improvements. Michael McCarthy (New York) and Peter Hopkinson are in charge of the project and the design.

Shoreham Park Apartments (upper center) in Washington, DC, will share an exterior landscaped plaza with the Shoreham Hotel. An estimated 80 percent of the 219 condominiums will have panoramic views of Rock Creek Park and Washington. David M. Childs is in charge of design for SOM/Washington on this project as well as for the following two in Providence and Wilmington.

Part of the work being done on the Northeast Rail Corridor, two stations, Providence (lower left) and Wilmington (lower right), are affected. Providence involves a larger plan (P/A, Jan. 1981, p. 94) for realigning tracks. building a new station, and restoring the old for other uses. In Wilmington, a Frank Furness building is to be preserved and updated.

SOM/Denver is responsible for the Denver National Bank Plaza (bottom). Kenneth Soldan was in charge of the project and Donald Smith (New York) in charge of design.

The building is a 26-story, 475,000-sq-ft aluminum-andglass-skinned tower. Its rounded corners are intended to soften the hard qualities of the materials while offering panoramic mountain and Denver views. Two one-story pavilions adjoin, containing drive-in banking and restaurant functions, and have roof-top pedestrian gardens.

P/A First Annual Conceptual Furniture Competition

Simultaneously applauding the competition and bemoaning the entries, the jury saw fit to make no furniture awards, but singled out nine designs as worthy of mention and, as the following pages indicate, comment.



Mildred Friedman



Emilio Ambasz





Lella Vignelli



Martin Filler



When something becomes of interest to architects, it becomes of interest to P/A. Such is the case with furniture design. Perhaps it is a result of the fast-changing architectural values of recent years. Like Wright, the Greene brothers, Mies, Breuer, and so many more, both leading and younger architects in substantial numbers now custom-design pieces for their own projects. Perhaps also some credence must be given to influence from Europe, where distinctions between architect and industrial designer remain more elastic than in the U.S. In any case, as a few North American manufacturers seem to be again taking hesitant steps toward architects as furniture designers, P/A begins an annual furniture competition to simultaneously encourage these directions and generate rigorous and public critical standards.

As with P/A's design awards, the jury atmosphere sought is one of multiple points of view and articulate debate. There emphatically was that at this jury as well as a shared feeling that American education in furniture design, reflected in the more than 800 entries, lags seriously behind European.

Graves: I found all day that I was outside most of the sentiment of the vote. I would shock you all if I would bring back the two pieces that I could live with. What I mean is, I could never say I don't like a design because I've seen it before. I don't think architecture or furniture is progressive. I think technique is always with us, but it isn't the dominant element for me, as it is with others. I think design has to do with the myths and rituals of a culture.

Ambasz: I'm all for furniture being seen as an artifact with which we transact our functional needs as well as our emotional and even mythical requirements, and that artifact as a device of reconciliation. I think in a curious way I find many points in common with you—the pursuit of a certain sensual quality to daily existence—but the way we go about doing that is very different.

Graves: What I suppose disturbs me a lot is that if there were a Pierre Chareau chair today or an Emile Jacques Ruhlman cabinet, it would not have had a very good hearing. **Ambasz:** No, I don't agree with that. You are putting your hands up in advance. I have not seen Pierre Chareau.

Friedman: There is an incredible dearth of good entries and a great need to think about these problems by more people, more sensibly and broadly.

Ambasz: There's a great lack of knowledge of very recent history of design. And all of those things are printed now. I am very curious as to how design is taught in schools here, if it is at all. Not to insist on a subject, but Italy has produced most of these types of bellyaches of the mind already. Everything a cultural anthropologist could find here he could find antecedents for if he looked in the 1960s and 1970s.

Vignelli: Sixty percent of the entries were below any professional level.

Friedman: The school situation in the United States is a problem. Architecture schools totally ignore furniture the same way they ignore a lot of other subjects, and the industrial design schools in America are notoriously dreadful.

Ambasz: Usually in Italy, furniture designers are all architects who have no work, and they are all quite well steeped in the history of design. You would be quite surprised to look at competitions of furniture designs by students in Germany and England as well. There is a much higher level.

Friedman: These entries are not addressing real questions.

Ambasz: Of style you mean?

Friedman: Either style or function, in relationship to the room, of anything. They are simply isolated little statements, mostly very derivative, mostly very uninformed.

Ambasz: A thing I found acute is: first, some of the early 20th-Century pieces were the results of designs made from specific architectural context. Then we went to another type of situation in the fifties, to a notion that you produce industrial products without any very direct connection or conflict, objects that

Project: Settee and complementary pieces-a lounge chair, glass-topped table, and accompanying dining chairs-for lawn, terrace, or sunroom. The basic intention was to create a set of furniture reminiscent of turn-of-thecentury Adirondack chairs; deep, comfortable seating with wide arms, in contrast to most lightweight metal and plastic outdoor furniture marketed today; furniture where one might linger over a drink or lunch while enjoying the view. "The aesthetic of the group," says the designer, "owes much to the pioneering designs of Charles Rennie Mackintosh, whose initials form the group's name (CRM), as well as the work of Josef Hoffmann and the Wiener Werkstätte.

The units are designed either of marineglued Baltic birch plywood with openings cut from a master jig on a constant module or of solid redwood or teak with the backs constructed of flush, interlocking lattice. The finish on the plywood would be a high-build epoxy or urethane-base paint with a satin lacquer surface. The redwood or teak would be finished with an oil-base solid color stain. The glass-topped table has an etched edge band with etched squares in each corner. The primary color is white. Soft tones of blue, green, or mauve might also be appropriate.

Jury comments

Filler: I happen to like the shape of the settee very much. It is very derivative, but it's interesting and new and would look very nice in a garden with lots of hydrangeas.

can be introduced and removed. And now I was curious to see that, again, this earlier situation has returned; but indeed we have only seen it stated in a very rhetorical way, no more than the babies' crying when they know that something bothers them. I haven't seen in any of the things an indication that there is a strong polemical line being pursued, even unsatisfactorily. No, these are vestiges. We do have a tremendous craving for ornament, for certain recognitions of sensuous materials. for proportions, for certain elegance of presentation, borrowing historical references in order to make that known. I think it is, perhaps, a first step. But, so far, it is to me more an indication of pursuit which is still seeking its expressive means.

Graves: I think it's important to look at P/A design awards of 25 years ago in architecture and to see the level of submission, and to see the level of submission now. This is the first year out for furniture. I think it is incredible that P/A has done this, and that's not a saccharin comment. I think that the submissions will improve. If we get one good piece of furniture a year from this competition, it's worth something.

Vignelli: I agree, I think it will improve.

Ambasz: It would improve mainly because of the wisdom of the jury in not having given awards and not having given citations. Because we made a stand, and we said that this isn't good enough. The competition should be done again. It should absolutely be done again.





Graves: I would give it a mention for proportion.

Filler: I like the settee better than the chairs and the table. I think it is a really novel, legitimate next development, and I find it a lot more pleasant than most modern garden furniture designs.

Ambasz: Make sure that you have the comments from Messrs. Graves and Filler as to why it is there. I want to go on record as No. **Vignelli:** No for me as well.

Jury members pore through entries, left to right: Mildred Friedman, design curator, Walker Art Center, Minneapolis; Lella Vignelli, architect and designer, New York; Martin Filler, editor, House and Garden, New York; Michael Graves, architect and professor at Princeton University; Emilio Ambasz, architect, graphic and industrial designer, New York and Bologna.

Glenn H. Gregg North Haven, Ct



Ricardo Scofidio

New York City: with assistance from Elizabeth Diller

Hung-shu Hu

Iowa City, Ia





Project: A three-legged floor lamp adjustable in height from 3 ft to 4 ft. It is made of three materials: a white, hemmed 5-ft-sq of cloth with a central drawstring opening with three sleeves, three ties with snaps and loops at center and two ties on the exterior for the electric cord; three natural pine poles, 1¼ in. diameter by 4 ft-2 in. long with bottom ends dipped in vinyl, and an electric cord and socket with dimmer switch. Poles are inserted through loop into their respective sleeves. Snap ties adjust to provide desired shape and height. Lamp socket is lowered through the top and drawstring tightened around switch unit. Cord is secured with ties.



Ambasz: It is an interesting thing, being portable and opening up.

Graves: Although the composition as it stands is somewhat literal for me, I admire that which it evokes. I'm intrigued by the primitive aspect of the tripod base as it is somewhat like the support for a camp stove, and the fabric shade as it suggests the tradition of fabric-covered lights in, say, the Wiener Werkstätte. The shadow that would be played on the floor offers a juxtaposition of light and dark related to the form of the lamp itself.

Jury comments

Filler: A surveyor's tripod, a Blanche DuBois handkerchief with it.

Project: This corner lighting uses various sizes of rectangle shields, arranged in many ways. It takes advantage of the corner both as the safest place in a space and as a reflector. Materials are nylon, plastic, glass, and either paper or fabric stretched on a metal or wood frame.

Jury comments

Ambasz: I find it attractive because of the use of corners. There have been others that used the corners, but this is the only case where I have seen it done in a modular way so you can almost use the corners in a room as moldings, or as decorative elements to define the edges. Vignelli: I think it addresses the problem but it doesn't present a solution that is worth anything.

Graves: He had 12, 13, 14 chances formally and he lost on 13 of them.

Filler: I don't like the horizontal black lines. Ambasz: I don't find the choice of the surface a very happy one. However, the idea of using it where walls meet, which is something we have always tried in the history of architecture to resolve, whether by moldings or cornices or one way or another, and are trying to put back in since we don't have the courage of putting moldings actually-not all of us. By putting a light there, he addressed a certain type of desire. The piece in itself is not successful.



Brand Norman Griffin Seattle, Wa





Project: The chair, 36" x 161/2" x 24", is made of laminated birch with a pearl-white lacquer finish, and upholstered in pale pink satin. A widow's peak is fashioned from inlaid rosewood. Leg ends are of high-density black rubber. "The chair does not stack, fold, or roll," declares the designer and states three design assumptions: that a conventional seating posture is valid, that the design is for a chair not the chair, and that the market can

stand an occasional fanciful piece of furniture. It is called "tutu."

Jury comments

Ambasz: It is sensitively done. Someone has gone through a tremendous amount of work to present an idea he could just have sketched. He did the drawing quite well really. It is seductive, right?

Vignelli: It is absolutely useless. You cannot consider it seriously.

Graves: But all furniture is not serious.

Ambasz: I do not deny it is a very funny drawing, but not to be given an award, a symbol for lots of people to see as a goal.

Vignelli: It is perfect for The New Yorker.

Ambasz: I don't think it's a furniture idea. I think it's a very sweet animalistic view of the chair, like a friend. There are animals that talk, and now you have little chairs that dance, OK? I think it's perfectly all right to bring up children in that way. They will certainly be less disappointed-chairs do not die after 12 years. They won't bite them.

Friedman: I find it no stranger than to discuss a Chippendale dining chair in terms of its animal-morphism.

Filler: I think one can merit this as an idea. Vignelli: An idea of what?

Filler: It's an idea of "What Not." Not an idea of "What." It's not why, it's why not. Humor. Ambasz: Was this conversation going on when they were doing Blenheim Palace? Friedman: You have to recognize the fact that we know about that. They didn't.

Michael McCoy **Bloomfield Hills**, Mi



Project: Folding chair. The door is removed from its normal context and reincarnated as an object in space. It is transformed from a barrier and entrance to a support. The arc of opening is realized concretely as a seat. The curve of the door lintel (chair back) is the clue to the object's use. It can be fabricated either of lacquered wood over steel armature in back or in self-skinned structural foam over steel armature with painted finish. Door and seat are hinged with piano hinges; seat is locked in place by snapping down on locking device on door frame. It is red and black; 21 in. wide and 30. in high, with 18-in. seat height, 16-in. seat depth, 16-in. seat width.

Jury comments

Vignelli: It is very pretty. It is the one thing here that is professional. Indeed, though, it would be very uncomfortable.

Filler: Whether or not it functions as a chair is somewhat beside the point. I like it so much I could use it as a plant stand. As a sculptural object it has great validity despite or perhaps because of its obvious de Stijl references. Ambasz: I think it should be a citation.

Gary Wolf Cambridge, Ma



Project: Lamp. An opal glass curtain diffuses the light of an electric bulb, much as a window curtain filters the sun's light into a room. It is intended to establish an analogy between artificial and natural light, and it imbues electric lighting with some of the luminous drama and evocativeness of the window curtain in sunlight. Fixture is of cast bronze, attached on a wall-mounted back plate. Dimensions are $5\frac{1}{2}$ " x $1\frac{7}{8}$ " for the crown and 12 in. long and $\frac{1}{8}$ in. thick for the curtain.

Jury comments

Vignelli: I like this idea because lighting through a curtain is always very nice. I think that it does get a little bit too formal on this piece. The real effect would only be obtaina-

Elizabeth Diller

New York: with assistance from Ricardo Scofidio

Project: A pile of bags on leashes that can be assembled on a bed of wooden nails into anything to sit in, sleep on, or prop up against, according to the designers, "for comfort or cruelty." Materials are 210 poplar knobs fixed to the floor, 4 in. on center, a poplar pole supported at both ends, 200 ft of woven cotton rope, 33 rubber bumpers and 33 rubber washers, 33 muslin bags—one sand-filled and the others dacron-filled, and 33 muslin removable covers.

Jury comments

Vignelli: I don't approve of this bed on the floor.

Graves: I don't approve of anything about it. I think it's absolutely ridiculous.

Friedman: So do I.

Ambasz: I don't think so. They are presenting a comment on something that can take any type of configuration. They overdid it by having the bed of nails—couldn't resist making a little joke on that—but had they just piled them up on the floor it would have made a statement about non-design, a certain presentation, a certain school of thought.

Vignelli: I agree on the school of thought. **Filler:** I find the nesting possibilities, from a practical standpoint, in rearranging the pillows in different ways, interesting. The idea of a bed of nails is an uncomfortable one.



ble with a fan.

Ambasz: I would speak for it because I think it gets over the two problems of making a sconce: 1) protection of the light, and 2) exposure of the light. The complex support system to hold the curtain is very contradictory. **Vignelli:** On second view, I think no, because it would really be like a rag on the wall and those things have already been done. We did it 25 years ago so I don't think that there is any merit there.

Graves: Josef Hoffmann did it in 1910. He did it very differently from this, and it's frayed, and it is there in the Austrian Institute, and it looks quite wonderful to me. **Filler:** I say yes.

Ambasz: No for me.



Vincas Meilus

Brooklyn, NY: Kristina Lewis-Meilus (coauthor) **Project:** The transformation of a traditional image into a contemporary one layered with images from different sources, from Vacationland to Bauhaus. Transparent fleshpink seat of vacuum-formed plastic. Yellow-green tubular aluminum legs. Dimensions are 36 in. high, 19½ in. wide, 21½ in. deep.

Jury comments

Graves: I think it's better than the original. **Vignelli:** We are still at the level of making a parody of something like we are with the tutu chair.

Graves: One of the great problems with that chair, when it was done in the 1940s was that it rusted because we didn't have a good way to protect it. This gets over that and in doing so injects a little humor.

Vignelli: At most you could call it a reedition, not an original design to which you give a prize.

Ambasz: One advantage which I see is that in metal this chair got very hot in the sun. This one with plastic wouldn't be the case. And I find the transparency terribly attractive. But it needs a special category.

Vignelli: I don't think technically the plastic is used right, and it needs a brace in the front. **Ambasz:** In plastic, the only way that this can be done, if it is not fiberglass, so it lasts more than three or four years, is a German plastic, Macrilon. It is very expensive, but it could be done. But then it would need a piece of steel to receive the plastic. It requires a bit of redesigning.

Project: Altar. The top is a burnished gunbarrel color ³/₈-in. plate steel. The I-beam is matte black enamel on steel. The column shaft on eroded plinth is of Persian red travertine or yellow travertine. The designers describe the project as: "The impersonal acrobatics of machine precision in striking harmony with classical repose." Dimensions are 36" x 72" x 36".



Vignelli: Exactly. So what are we looking at? **Friedman:** Nothing, just pretty pictures. **Graves:** Our discussion is about interpreting the materials.

Ambasz: There is a certain tradition of redesigning with minor improvements with materials which were not in existence originally.

Jury comments

Filler: I like it very much. **Ambasz:** I am seduced by it. It's perverse.

Vignelli: It is very elegant.

Ambasz: I think it should go with a clear understanding that that thing is not stable, all right? There is no way unless that sheet on top would be aluminum. It cannot be steel. **Friedman:** It's at least an idea.



Hancock

Design Associates

Chicago: John Hancock,

Nina Hancock, Shawn Hunt.







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GENERAL 🍪 ELECTRIC



Top left: Warren Douglas Thompson and Andrew J. Kerr. Top right: Tom Clause. Bottom: Richard C. Peters, Richard M. Clayberg and Thomas J. Caulfield.

FIRST AWARD Residential/Multifamily

ARCHITECT: Peters, Clayberg and Caulfield. BUILDER: W & B Constructors, Inc PROJECT: St. Mary's Gardens, Oakland, CA JURY: Visual excitement on the exterior is outstanding, as are density and moderate cost. Accessibility for elderly tenants was successfully solved. Interiors are uncommonly light and airy.

CITATION OF MERIT Residential/Single Family 1600 square feet or less

ARCHITECT: Alfred French and Associates, Inc. BUILDER: Krause Construction. LOCATION: Grand Portage, MN. JURY: Exhibits design restraints in its simple forms and use of material. A straightforward, open plan which encourages family fellowship and is valuable for a vacation residence.



JURY: John D. Bloodgood, AIA, Des Moines, Iowa; J. Donald Bowman, AIA, Bellevue, Washington; Edward A. Schmitt, AIA, Strongsville, Ohio.







FIRST AWARD Residential/Single Family 1600-2200 square feet

ARCHITECT: Tom Clause, Charles Herbert and Associates, Inc. BUILDER: Vosco, Inc. LOCATION: Lago Vista, TX. JURY: The house is honest in its directional quality, the south walls protected by overhangs, the north side flush with minimum fenestration. Interior spaces are elegant, proportions pleasant.

CITATION OF MERIT Residential/Single Family 1600-2200 square feet

ARCHITECT: D. Bryan Shiffler, Charles Herbert and Associates, Inc. **BUILDER:** W.R. Main. **LOCATION:** Des Moines, IA. **JURY:** Careful proportioning presents a exceptionally good solution to this cube design. Inside, the simplicity is refreshin.

ITATION OF MERIT esidential/Multifamily

RCHITECT: Buss Silvers Hughes & sociates. **BUILDER:** J.H. Tehan instruction Co. **PROJECT:** Morley Field whomes, San Diego, CA. **RY:** Architects showed great forehught, particularly in the solidarity of ms, including treatment of returns at hodow and deck overhangs. Horizontal int detail on plywood siding is well indled. Each view is extremely private.





CITATION OF MERIT Residential/Multifamily

ARCHITECT: J. Michael Brendle, Designer, Atkinson/Karius/Architects, P.C. BUILDER: Osborne Construction Co. PROJECT: Lakewood Townhouses, Lakewood, CO. JURY: Difficulty of blending into a neighborhood of 30- to 50-year-old single-family dwellings is skillfully solved. Roof forms echo the character of the neighborhood, providing a real community feeling.



CITATION OF MERIT Residential/Multifamily

ARCHITECT: Goodwin B. Steinberg Associates. BUILDER: Gerald Marcoe. PROJECT: Barron Square, Palo Alto, CA. JURY: Siting gives a single-family atmosphere to a multifamily project. For merchant-built housing, this is unusually responsive to the market. Forms are exciting yet familiar.





CITATION OF MERIT Residential/Single Family 1600-2200 square feet

ARCHITECT: Everardo Jefferson, Caples-Jefferson. **BUILDER:** Ted Zelius. **LOCATION:** Vermont. **JURY:** Vertical design is directly proportional to the dramatic landscape; exterior surface, including joint detail, massing and interlacing of plywood is adroitly matched to the structure's scale.

FIRST AWARD Commercial/Institutional

ARCHITECT: Warren Douglas Thompson, AIA; Andrew J. Kerr, AIA, Thompson Architectural Group, Inc. **BUILDER:** Grupe Construction Co. **PROJECT:** Shannon's Seafood Restaurant, Stockton, CA. **JURY:** Interesting counterpoint between taller and shorter masses. Lakefront setting is optimally dealt with. Handling of intimate interior spaces contrasts favorably with higher volumes of open spaces. Joinery is handled with great delicacy.

CITATION OF MERIT Commercial/Institutional

ARCHITECT: Hansen/Murakami/Eshima, Inc. **BUILDER:** Emkay Development and Realty Co. **PROJECT:** Harbor Bay Landing, Alameda, CA. **JURY:** Skillful placing of a variety of spaces in relation to the waterfront is the outstanding design element. Each building has a wharfside look, adding a residential feeling to the shopping area. Use of translucent panels with covered walkways generates variety and excitement.





CITATION OF MERIT Commercial/Institutional

ARCHITECT: Robinson-Neil Bass & Associates. BUILDER: Culbert Mills. PROJECT: "Quicksilver" Banking Module, Nashville, TN. JURY: Illustrating strong control of design, vertically applied plywood siding is especially effective in the radius forms of this compact module. The plywood also has a graceful quality that gives a natural look to the all-paved setting.

CITATION OF MERIT Remodeling/Recycling

ARCHITECT: Tivadar Balogh, Architect, AIA. BUILDER: Mid-Con-Co, Inc. PROJECT: Growth Works Building Renovation, Plymouth, MI. JURY: The design is an appealing addition to the neighborhood. The front facade was redesigned to incorporate unique, creative elements – a first-class solution given budget restraints.





CITATION OF MERIT Remodeling/Recycling

ARCHITECT: James Malott & Associates. **BUILDER:** DeHaan & Cox. **PROJECT:** Colebourn Residence Addition, Walnut Creek, CA. **JURY:** An ordinary "before" house was transformed into a celebration of light and air, opening up interior spaces to outside expanses. The forms added to the house are very exciting, and the interior spaces are especially enjoyable.

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Waterproofing for planters

Villiam T. Lohmann

Vith increasing interest in nderground buildings, reenhouse atriums, and eople-plazas, specifiers are igging for information on ppropriate waterproofing ystems for planted areas. Frowing a tree in a lobby is ot simple.

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Successful waterproofing systems for planters are more difficult to achieve than leak-free roofing membranes—and more formidable to correct if they fail. Some unusual design criteria are often overlooked.

The waterproofing membrane is subjected to constant moisture in the planting medium. Because of special plant needs, sometimes this results in more acid or alkaline conditions than normally encountered in foundation waterproofing. Roots of large plants may damage, even penetrate, the membrane.

If the planter is formed as part of the building structure, the waterproofing membrane is subjected to the same movement, stresses, deflections, and creep that other building components must accommodate. It must also withstand the impact of backfilling operations and mindless shovels.

Some types of planters sidestep most of the problems. Precast concrete or formed plastic containers that are placed directly on paving are sufficiently watertight to prevent staining and drain onto the paving surface. Structural support and waterproofing below the paving are the primary design considerations. Planters that are constructed as part of the building, however, require waterproofing to prevent water permeation and leaching of soil and fertilizer elements to interior and exterior building surfaces.

The worst conditions are found in planters that are designed for pots set in a support medium and in those that are filled with soil for direct planting. The support medium, such as gravel or polystyrene "peanuts," allows drainage but maintains a moist atmosphere in the planter. Planting soil may be constantly wet. Planters that incorporate rocks or perforated shelves to hold isolated pots, however, may simply be lined to contain runoff and conduct it to a drain, since the waterproofing surface is free to dry between periods of rain or watering.

A quick perusal of available waterproofing materials will eliminate some from planter applications. Clear acrylic and silicone sealers, sometimes referred to as "waterproofers" in trade literature, are actually only waterrepellent coatings. Metallic oxide systems, which densify the troweled concrete surface, will not bridge cracks. The same is true of applied cementitious coatings. Bentonite clay gel remains soft when exposed to moisture and therefore is easily damaged by planting operations.

Asphalts are often used for foundation waterproofing in the form of cold- and hotapplied coatings and membranes incorporating saturated fabrics. Asphalts, however, are subject to eventual degradation by leaching and emulsification. Their use in planters would seem inappropriate. Because coal-tar products exhibit better resistance to water degradation, they can be used. Alternate layers of coal-tar pitch and coal-tar-saturated fabric produce a built-up membrane capable of withstanding normal soil exposure and some structural movement. Applied coal-tar coatings may be specified if little movement and temperature differential are anticipated.

Sheet lead, copper, and galvanized steel form effective linings for open planters, utilizing standard metal roofing and flashing details. Only lead is appropriate for planters containing soil, though, and is the most durable waterproofing system available. Relatively inert, it must be protected initially from the corrosive action of green concrete or mortar containing free lime.

Of the available elastomeric sheet waterproofing materials, butyl is most applicable. It has a much lower permeability rating than EPDM or neoprene. Proper laps and terminations are critical, but the large sheets are beneficial. Corners and special flashings can be preformed.

With fluid-applied elastomeric coatings, unusual configurations are less of a problem. Stress areas are reinforced with glass mat, and the coating thickness is increased. A normal 60-mil membrane will bridge minor cracks. Neoprene and polyurethane systems are recommended for most planter applications.

All waterproofing systems require a protection course, particularly the "soft" materials. Asphalt protection board is sufficient to prevent damage during construction and planting operations. Concrete or cement plaster is more lasting. Since swelling roots exert a powerful force over the years, landscapers also recommended a protective screed over the membrane, especially where trees are planted. When planting areas must be insulated from interior heat during winter months, foam glass and high density polystyrene materials are most effective.

Green stuff

When landscaping indoors means more than a dracaena in a color-coordinated pot, architects need to add another specialty to their wares, just to talk to their consultant. The Ford Foundation was the turning point, the point at which the "Greening of America" moved beyond apartment jungles and shops called "Plantasia" and became an *architectural* idea for public indoor spaces. Today, offices, malls, hotels, and airports all over the country are designed with permanent—if you took it away, there would be a hole—gardens. The number of major landscape contractors has numped into the hundreds. The foliage nurstry business has increased tenfold since 1966. and concern nowadays dwells on the shortage of the big trees.

The Ford Foundation, however, was another turning point as well. It was so huge, so uxuriously planted, and so innovative that when some things started going badly, all eyes were upon it. Ford was an experiment in plant wes—chosen from subtropicals and even temperate varieties. When the magnolias et al. started dying, it turned out a failure in communication with maintenance had kept nighttime temperatures far too high. Renting a dracaena and sending it back when it drooped was one thing; establishing and maintaining a permanent indoor landscape required a different level of expertise and coordination.

Light

Our information about how to light plants is changing almost as fast as the foliage business is increasing. Further complicating the situation are our responses to the increased cost of energy, some of which make the existence of indoor gardens look like a temporary aberration others make them more likely than ever before.

There are four basic factors in plant lighting: intensity, duration, spectrum, and direction. Intensity-how much light-requires a system of measuring. Traditionally this has been the footcandle, with 50-75 fc at ground the absolute minimum for the lowest light tolerant plants. Ficus requires 200 (at leaf height). The texts in the bibliography give generally agreed upon recommendations for both survival and growth. The problem with the footcandle, according to Dr. Henry M. Cathey, perhaps the foremost current researcher, is that it only measures the green/ yellow zone of the spectrum. Foliage plants, which are shade plants to begin with-they grow under bigger trees in the jungle-are total energy converters, he says. Footcandles measure green/yellow because that is what the human eye is most sensitive to. Cathey has

worked out a system in which each light source—natural and artificial—can be measured separately with the relatively inexpensive footcandle light meter from a garden supply house and then converted into a more useful and accurate watts per square meter by means of arithmetic (see illustrated charts). The watts per square meter figure takes into account the total usable energy spectrum of each light source. In these terms, 0.75 to 3 watts is suggested for survival, 3 to 9 for maintenance, and 9 to 24 for propagation.

Recommended duration of light is generally agreed on as 12 hours of reasonably consistent light per day, which means that turning off the lights at 5:00 P.M. to save electricity is out. Some interchangeability seems to exist, however, between intensity and duration so that more light for fewer hours can be equally healthy. A rest period (dark) may be mandatory.

Required spectrum is anything but agreed upon. The last consensus held that plants only use blue, red, and far red light in photosynthesis. Thus grow lights consist of these alone. It has been clear for some time that either blue or red was sufficient by itself. The most recent experience-which encompasses the introduction and use of high pressure sodium lamps as well as Dr. Cathey's specific experiments-indicates that foliage plants can use anything. The importance of the spectral distribution-besides color rendition of plants, furniture, and human skin-seems to be not in whether the plants grow or survive, but how. This is still very new, but there are indications, for instance, that the light from the red end produces longer stems and paler coloration; the blue end, darker greens and more compact plants. Eventually research should be able to suggest how color elongation, branching, flowering, and other characteristics can be orchestrated for dramatic effect through lighting. Grow lights are not generally recommended.

Directionality is important for the look o the plant. If the light all comes from one direction, the leaves will turn to it, and the plan will have a distinct front and back. People most likely, will be rudely left with the back There are two choices: **1** provide light either

From Kurtz and Van Gieson, Interior Planting Line Art, courtesy of Environmental Design Press rom above or all sides or bounce it around or the same effect, or **2** insert some kind of levice so that the larger plants can be rotated. In Britain there is at least one garden with ontainers connected to torque motors that eep the trees gradually turning. This is expensive. A cheaper variation, suggests landcape consultant and architect Richard Gaines, is to set the containers on ball bearngs of, say, golf ball size so they can be physially turned. Roots should be watched to see hat they don't push out of the drainage coles.

Otherwise the idea is diffused light. This is he method about which the daylighting eople are providing so much current infornation. (They are also advocating the use of ght atriums, another energy-conscious reponse that in effect promotes gardens.) among the principles that apply to designing uildings to house gardens: 1 a gable or gamrel glazed roof with light from more than ne direction increases the intensity of light nd evens light intake throughout the day; 2 ne higher this is, the more light; 3 if it is ightly tinted, less light will be taken in but ess will be bounced back out; 4 if canted in ne direction only, the glazing should be at he same angle as should a solar panel. Lessning the effective shape of the light well or instance, by canting its edge walls back 45 egrees-increases available light. So do sevral lamps from each side instead of one igher wattage lamp on top. So do highly eflective walls with smooth texture and flat hite paint. Glossy paint creates hot spots. inted, reflective, and translucent glazing ats down intensity and affects the spectral istribution of what is taken in.

One material that Gaines thinks shows romise for the future is a Teflon-coated berglass fabric. (Seaworld in Orlando is nade of tents of this.) Its problem is that it as a poor U-value, but when used in two yers with insulation between (as it has been Alaska), it loses much of its translucency. lowever, he says, there are companies workig on transparent insulation that would put the fabric into the running for northern cliates.

The parameters for artificial lighting are retty much the same as for lighting for eople: efficiency, lifespan, color rendition, ght throw. In addition, incandescents can eate heat problems (if they are within 4 ft of plant), but they are so inefficient that they e rarely used. High pressure sodium would so pose a heat problem, but it is always used om great distances. Cool-white fluorescent the most common, but can't throw light ore than 8 ft or so away. The energyficient HIDs have come into their own in rdens perhaps even more than in ordinary aces, sometimes in color-balancing combiitions. Uplighting may be theatrical but apirently does little for the plant and somenes actually dries it out or makes its leaves p over.

ructure

espite visual logic, says landscape architect ark Morrison, gardens are heavier than computers. He says to figure 400–500 lb per sq ft as a general rule. A large ficus can be as much as 8000 lb, but it can also be placed over columns or beam lines near columns so that structure can be geared to a lower average. Regular soil mixes wetted down should be figured at 100–125 lb per cu ft. The special lightweight mixes (more about them later) wetted down are 50–60 lb per cu ft. Nurseries can help with individual plant weights.

If the trees are too big to be installed by hand, structure has to be adequate for the machinery to install them and, if need be, replace them. The finish floor material has to be One of two skylit courtyards in the International Mineral and Chemical Corporate Headquarters in Northbrook, Il (Joe Karr & Associates, landscape architect; Graham Anderson Probst & White, architect). They were originally planned as exterior landscaped courts but enclosed after energy use was analyzed.



Interior technics: Interior gardens

adequate for this too, and some kind of continuing access through door or window has to be designed in.

Planters and planting beds

Tampa's new airport is famous more for its circulation system than its planters full of Florida's finest flora. But when, within two years of opening, the roots of those plants cracked the brick-faced concrete block planters open, it acquired a special notoriety for landscapers. Little research has been done on root pressure, but basically roots will always prefer to avoid a confrontation. If all directions are blocked, however, and there just isn't enough room, they can break unreinforced masonry as if it were styrofoam.

In larger planting beds, the basic decision is whether to put the root balls directly into the soil or to leave them in their nursery containers and fill the interstices with soil for the planted look. It is a subject about which strong opinions are expressed. The big gardens like Ford and Crown Center Hotel in Kansas City are direct planted. In fact, they are planted right on top of earth without benefit of foundation. This is healthier for the plants and necessary for the roots if growth is expected.

On the other hand, if left in containers, plants can be easily removed if they develop bugs, get one scotch and soda too many, or just fare poorly. The container will help restrain growth, but if there's enough light to promote it, some roots will crawl out the draining holes and the rest will choke within the container, necessitating a larger one.

Most planters and beds are not heated, but researchers have discovered that the temperature of the root system is even more critical to health than that of the leaves. A garden over an unheated space like a garage is particularly susceptible. If the soil is 60 degrees or below, the plant just stops growing and senescence sets in.

Drainage

Without good drainage, the roots rot. There are two methods. The best is actual drain lines in the bottom of the gravel layer. Gaines recommends one per 10 ft of width. This is always used in the big gardens and almost mandatory if there is occupied space below.

The other is the gravel layer alone, from several inches to as much as is needed to fill the hole. This layer can be pebbles, charcoal, shards-as long as it doesn't dissolve or hold water. Hammer recommends a poorly graded aggregate (i.e., uniform size) for grates and pore space. Alternatives are polystyrene peanuts and three-dimensional drainage matting of polyester and nylon. To keep the soil above from silting into the gravel and clogging up the works, a mat is advisable, of either fiberglass, polypropylene, nylon mesh, or a new combination poly/nylon fabric that is lighter weight. This material is also recommended over any drain pipe openings for the same reason. Essential is a waterproof membrane, of course, and some suggest a fibrous plywood or pressed board between gravel and membrane to protect it.

Nelson Hammer, a landscape architect with TAC, suggests that without drain lines there should be PVC pipes stuck vertically into the gravel layer at various intervals so the maintenance crew can stick something down to check water levels. If necessary, excess water can be siphoned out through flexible surgical tubing.

Soil

Researchers have been trying to determine for years which of the hundreds of soils used is best, either for growing or maintaining plants. Most of what they have discovered is that many combinations work with components from peanut hulls to cypress chips to sawdust.

More relevant than what it is, is what it does. Some materials are more porous than others and let roots get enough oxygen. Soil that is too loose, however, has implications for its ability to support large trees out of their containers. Some ingredients hold water longer than others, weigh more than others, or tend to move to the surface. Some are composed of chemicals that might be a potential hazard. Perlite, for instance, has a high fluoride content. In combination with highly fluoridated water, this is dangerous for some common plants such as the Dracaena Janet Craig. Basically, the advice is to ask a local nursery what they use. The answer will be adequate to both plant survival and to cost consciousness. What it won't be is weight conscious.

In the past 10 years, soilless mixtures have become available that are considerably lighter weight than previously used ingredients. They are bagged, easy to handle, expensive, and recommended where structural load is a consideration. All food has to be added as fertilizer and one disadvantage is that the mixtures tend to erode on steep slopes.

Soil should be installed layer by layer and wetted down in between. Otherwise, too little will be put in, and it will pack oddly and unattractively later.

Water

Landscape architect Jack Siebenthaler tells of staying at Atlanta's Peachtree Plaza when it first opened and seeing hoses snaked around and up several floors of the atrium to water all those hanging plants. For hand watering, the rule is emphatic: hose bibbs on every floor, preferably every 50-100 ft in a big installation. A 35-50-gallon drum on wheels can eliminate hose length if only every floor is possible. Gaines recommends a water breaker nozzle to add oxygen to the water as rain does, a metal extension with a shut-off valve for ease of use, and an interchangeable fogging nozzle for misting.

Suggested light and nutrition levels for production of potte acclimatized foliage plants

Botanical name

Aglaonema spp. Aphelandra squarrosa

Araucaria excelsa Asparagus spp. Brassaia spp. Calathea spp. Chamaedorea erumpens Chamaedorea elegans Chrysalidocarpus iutescens Codiaeum variegatum Cordyline terminalis Dizygotheca Kerchoviana Dieffenbachia spp. Dracaena deremensis (cultiva Dracaena fragrans (cultivars) Dracaena marginata Dracaena-others Ficus benjamina & F. nitida Ficus elastica (cultivars) Ficus lyrata Maranta spp Monstera deliciosa (P. pertusu Nephrolepis exaltata (cultivar Peperomia spp. Philodendron Selloum Philodendron spp. Pilea spp. Sansevieria spp. Scindapsus spp. Spathiphylium cv. 'Clevelandi Syngonium podophyllum Yucca elephantipes Zygocactus truncatus



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Different plants respond best in different acclimatization levels. Top: a chart of recommended levels for common indoor plants. Above: cross-sections of a leaf grown in full sunlight and a leaf grown in a greenhouse or shade house. Left: The difference in the shape and fullness of foliage of a tree grown outdoors and that of in acclimatized tree.

For sheer reliability, hand watering is preferred-there is a certain history of clogging with the automatic systems-but a number of automatic irrigation systems are available, may well be one of the ways of the future, and provide-major labor cost savings. The preferred thus far is drip irrigation. This involves PVC tubes hidden under the soil to each plant or pot. The other ends attach ultimately to an emitter (a box that dissipates water pressure like an electronic transmitter of a TV set) set for a constant rate at very low velocity. This can be manually controlled. As an irrigation system, this can be adapted on a plant-to-plant basis most readily, is largely invisible, and presents the least danger of overwatering or uneven watering. On the other hand, the pores are so small that it is impossible to combine the introduction of fertilizer or systemic pesticide with watering (possible with a hose or spray heads), and the system provides no washing of the leaves. Another problem, as Chicago's O'Hare Hyatt Regency Hotel discovered, is that curious-or drunk -visitors pulled the little tubes out of the hanging pots, leaving the plants unwatered as the tubes dripped on unsuspecting guests below.

Spray head systems do help wash leaves if they are up in the air, but many designers prefer them at soil level for aesthetic reasons. There is a problem here of coverage, as water moves quickly downwards but has little lateral movement. Spray systems can also erode soil, spray out as well as in if heads get turned around, and like all automatic systems, need to be adjusted for seasonal variations. Bubbler systems have the same disadvantages as soil level spray systems. Misting systems share the unsightliness of heads in the air and drip irrigation's inability to combine fertilizer and pesticide into the watering effort.

Hand versus automatic is another issue around which opinion flares, but a couple of recent developments add a third dimension to the question. One is the introduction of self-watering containers. These have a reservoir of water in the container around the plant. For most this container is the decorative planter itself, but at least one can be put inside something else. Some kind of wicksoil, cotton-exists between the root ball and the reservoir that draws water by capillary action. The trick is to use a soil mix that does not draw more water than the roots themselves need. This obviously has application only where plants are to be left in containers, but the potential for labor saving is dramatic and especially useful for relatively inaccessible hanging plants. A sensor system (as opposed to a wick system) is to be avoided, as existing sensors cannot distinguish between water and fertilizer, so a dried out, heavily fertilized plant will continue to dry out.

Even further along the logic of labor-saving devices is hydroponics. Growing plants in water is widespread in Europe. There are several methods. Each uses a nondissolving mix, such as fired clay rock, or gravel, or coarse peat. One has the roots (which when grown in water are physiologically different from soil roots) sitting in both mix and water; another has them partially held in a dry mix over water. The advantages, besides cutting down costs of watering and eliminating deterioration as a result of overwatering, are fewer root diseases and no need to leach excess salts (discussed below). Disadvantages are the cost of the mix—2 to 3 times soil mixes for both growing and installation—and difficulty if not impossibility of supporting something higher than, say, 15 ft.

Progress in the treatment of water causes certain problems. Water softened by the Zeolite[®] process uses enough sodium chloride to severely damage roots, but deionized water is apparently harmless. Water additives, such as chlorine, are usually in low enough concentrations to pose little danger from chlorine gas, but are a serious problem near a swimming pool. Fluoride levels can be too high. If so, Gaines suggests that: 1 fluoride-containing soil ingredients not be used, and 2 pH levels be raised to 6.0 or 6.5 so that the calcium makes the fluoride unavailable to the plant.

Specifying plants

Plants in the U.S. come mostly from Florida (about 70 percent), California, and Texas. A catalog, published originally by the Foliage Association and now by the Associated Landscape Contractors of America (see bibliography), is in its infancy.

The major change in the growing of plants, which affects specifying, is what is called acclimatization. Some nurseries have practiced it for several decades, but since the published research of the University of Florida Agricultural Research Center at Apopka, some approximation of their recommendations is practiced by (their estimation) three-quarters of the growers.

Acclimatization is simply the gradual acclimation of large plants, which are grown in the sun, to lower levels of light while still at the nursery. Smaller plants, grown in greenhouses to begin with, have always been acclimated to lower than total sunlight. But larger plants traditionally were pulled from the 8000–15,000 footcandles of Florida's semitropical paradise to 200 footcandles inside a shopping mall in the north. The plants went into shock, used up their food reserves; leaf-dropping plants like ficus lost most of their leaves, and many died.

Acclimatization means plants are put inside shade houses or greenhouses, which let in some percentage of sunlight, for three months to a year. How long depends not on size as much as speed of growth. Systematic research by the Apopka Center provides recommendations for both shade level and fertilization schedule for each of dozens of plant varieties.

Interior technics: Interior gardens

The results of acclimatization have been plants that live, drop 50 percent fewer leaves when brought into the even more reduced light indoors (generally the equivalent of 98–99 percent shade), and can survive up to ten days of no light during shipping and storage. At present, the Apopka Center is researching ways of altering plants to endure up to a month of darkness so that Florida nurseries can ship container freight (rather than air) to markets in Europe and the Mideast.

Plants might be specified to ensure proper acclimatization. Wording should include that the plant has been in its final container for at least 12 months and that it has been kept in x percent shade for a minimum of x months. See charts for specifics. Another condition to specify, emphasizes Gaines, is the fertilizer content of the plant. Plants are highly fertilized for fast growth. These salts build up in the soil and during the drying that takes place in shipment can severely burn the roots. His suggestion is to specify that: 1 all plants have no higher than a Solubridge reading of 500-1000 ppm at shipment; 2 that if leaching is necessary to lower the level, this be done at least two weeks before shipment; and 3 all forms of slow-release fertilizer be eliminated from the soil surface by hand before shipment.

Another decision a buyer might want to make is between a nursery that grows its large plants in the field, then chips them out and puts them in containers, and one which grows them in successively larger containers from the beginning. Nurseries defend each system with little short of zealotry. Among the clearer implications are: 1 field-grown plants have thicker trunks and better looking bark and grow faster; 2 container-grown plants have roots that do not undergo the shock of transfer, generally need less acclimatization, and are planted in whatever soil is desired. Field soil can be porous-in the coral rock regions of parts of Florida, for instance-or too sandy and compact for staying healthily in their containers indoors later. Soil, however, can be changed.

One thing that is missing is a commonly agreed upon specification system. Nurseries, which are often family-run, small-scale enterprises, seem to feel architects should fly down and pick their choices one by one. For those who share neither such maternal instincts nor time schedules, this is what they need to know:

1 *Height of plant.* For exterior landscaping, *height is usually measured from the soil line.* For interior landscaping, the measuring stick starts at the bottom of the container. To be

sure, indicate which measurement you intend. The difference is worth hundreds of dollars.

2 Container size. This should be worded: no smaller than x in. or x gallon. The ALCA booklet gives appropriate relationships of height, container size, and spread.

3 Spread or width of foliage.

4 For trees: caliper of trunk, single or multiple trunk, how much clear trunk (distance between soil and first branch).

5 For cane plants: how many canes, heights of each.

6 For plants with heads (e.g., corn plant): how many.

7 Form. Some plants can grow straight up or be trained to bend in interesting ways. This is called character and costs more.

For plants which are slightly off the beaten track or for very large trees, it is advisable to bid two or more years ahead of the expected installation date.

Plants II

Some people are never satisfied. With the rapid increase in indoor gardens, we have learned a great deal about which plants survive well. Designers know to specify them and growers—many of whom have become serious about cost accounting in recent years know to grow them. Unfortunately the result has been to trim the available palette of plant types. The South American jungles are full of other plants, but most won't grow under low light. Some have other problems. There are many gorgeous palms that are used often in Europe but not in America because their thorns present the possibility of liability suits against their owners.

Sometimes, however, plants can be adapted. One way is by finding a particularly good specimen (a natural mutant) and cloning it. Asexual reproduction is old hat in plant propagation, but there is a newer version, which is beginning to have a serious commercial impact, called tissue culture. Originally developed by orchid devotees, it has been researched and promoted by University of California's Dr. Toshio Murashige for 22 years. There are now more than 70 commercial labs in the U.S. that do this. The method uses less of a plant that other asexual methods so that many times the previous numbers can be produced. They are cultivated in sterilized test tubes so they require less time, space, labor, and maintenance to produce and are disease- and fungus-free. The method also grows plants two to twenty times more quickly.

Far less common are the researchers or hobbyists who are actively trying to induce mutants (by irradiating plants with gamma rays) or by hybridization. Richard Henny at Apopka, who is working at both, says the aim is generally not different varieties but hardier versions, versions with variegated leaf patterns and more non-green color, and more interesting shapes. Some nurserymen have concentrated on adapting not generally used plants to low-light conditions on a trial-anderror basis.

Among the spectacular results already

Comparison of lamps and daylight

Lamp Fluorescent	Footca to Watts p sq. met (400-85 Multipl fe by
Cool White Warm White Gro Lux-Plant Light Gro Lux-WS Agro-Lite Vita-Lite	0.0: 0.0: 0.0: 0.0: 0.0: 0.0:
Discharge Mercury (all types) Metal Halide High Pressure Sodium Low Pressure Sodium	0.0 0.0 0.0 0.0
Incandescent Standard Incandescent-Mercury Daylight	0.0 0.0 0.0

Dr. Henry M. Cathey's comparison table for various lamp types includes a multiplier for converting footcandles to irradiance meters (which includes the full spectrum produced), along with calculations on lamp efficiency, energy efficiency, and lifespan.

A short bibliography:

Gaines, Richard L., AIA. Interior Plantscaping: Building Design for Interior Foliage Plants. Architectural Record Books, 1977. Handbook for architects, including an insert section on specific plant types, their light and moisture requirements and growth habits.

Manaker, George H. Interior Plantscapes: Installation, Maintenance and Management. Prentice-Hall, 1981. Written for the landscape contractor.

A Guide to Specifications for Interior Landscaping. Association of Landscape Contractors of America, McLean, Va, 1979. Catalog with specification guidelines, acclimatization guidelines, required light and moisture in installation. A new version with color photos instead of black and white is due in summer, 1981.

	- 10 - 10 - 10 - 10 - 10 - 10 - 10 - 10
Radiation (400-850 nm) Percent of Input Energy	Average Useful Life of Lamp 12 Hr/Day (Months)
21	12-24
20	12-24
13	6-12
16	6-12
17	6-12
18	12-24
14	24-36
30	12-18
36	24-36
31	15-20
15	2-6
12	12-24
Courtesy of Dr. H	enry M. Cathey

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available are McCauley's philodendrons philodendrons with so much red in their leaves and stems that they are patented—and several replacements for shefflera—Tupidanthus, Brassaia Amate, and Brassaia Arboricola.

Beyond that there are two possibilities. One is literally new plants—from South Africa, Australia, or semitropicals adapted to indoor conditions. The other is more light in those indoor conditions. Some developments, such as the interest in daylighting, make this a real possibility. In an atrium, the variety of plants which could survive is far more extensive, including variegated color varieties and possibly even flowering plants, not just brought in but growing there.

Maintenance

Buying plants is one thing; keeping them alive is another. The country is full of empty grates where 20-ft trees once stood. The dangers begin the moment the plant leaves the nursery. Among the killers, nurseryman Jerry Soowal points out freezing weather and gas given off by asphalt paving, especially if it is recently poured. For either, a few seconds is enough. Indoor hazards include: ammonia and carbon tetrachloride cleaners, paint and varnish odors, Creosote and other wood preservers (they give off a gas), sulfur dioxide, heavy cigarette and cigar smoke, alcohol.

The Independent Life Insurance Building in Jacksonville, tells Siebenthaler, ran into a couple of unanticipated problems. Treadleoperated automatic doors turned evening rush hour into 45 minutes of open house and dead plants. One year later, revolving doors were installed instead. The other problem was too much nature. Birds flew in, roosted in the trees, dropped guana on the café tables. The health department closed the café until surreptitious extermination removed the fauna from the flora.

Building maintenance includes, minimum: temperatures in the low 70s day, 60s night (for tropical plants); humidity of at least 30 percent; and regular cleaning of windows and skylights. Fountains in gardens can raise humidity and, needless to say, HVAC vents should never blow directly on plants. With quasi-greenhouse glazing, there is a danger of heat buildup. Ventilation can be designed to relieve this as well as gas poison hazards.

Maintenance of plants consists of far more than watering. Leaves need to be hand washed at regular intervals. Occasionally, plants need to be fertilized—every three to six months; more if growth is taking place. Research has consistently lowered the amount of fertilizer suggested, and some of it suggests the traditional 1:1:1 ratio of nitrogen, phosphorus, potassium should be 3:1:2. Every so often, fertilizer needs to be leached—washed out with running water. All this should be tested every two months or so—Solubridge measure (salt build-up), pH level, and amounts of specific nutrients.

Knowledgeable people need to check for bugs, all the time. There is a special problem nowadays. In its concern to protect people from the dangers of pesticides, the EPA outlawed everything that wasn't researched and specifically approved for each purpose. The companies have energetically pursued labeling permits for agricultural use, but indoor foliage just isn't that big a market. Research groups have tried recently to fill the gap. Some companies take the free research and run with it; others balk at possible liability problems for, again, not much in return.

That isn't the only problem. Spray pesticides can get into the HVAC system. Systemic pesticides, put into the soil, are safer (although a tiny taste of the favorite— Temik—is likely to be lethal within hours), but systemics have the drawback of not moving up in larger trees when they aren't growing vigorously (i.e., indoors). Some experimentation is going on with injected pesticides. But slow injection—with a cup on the side of the trunk for days—poses an attractive nuisance that is very dangerous for the curious. And pressure injection causes wounds that, inside, won't heal over.

The truth is that, both down in Florida and in installations, people are using illegal pesticides as a matter of course. What are the alternatives? Some suggest that soap and water discourages insects. The Apopka researchers say it's useless. Biological control from ladybugs to predaceous mites to infusions of sterilized males—is undergoing experiment. But indoors there is a cycle problem. The good guys eat the bad guys then starve to death themselves. Later, the bad guys' eggs hatch and the whole—expensive—process begins again.

Disease is less of a problem indoors than at the nursery, but one which has presented difficulties is cankers. A tree is hurt or has pieces removed for propagation or pruning. A fungus enters the lesion. In Florida, where it is growing vigorously, it can compartmentalize the wound. Indoors, under stress, it loses this ability. A fungus can enter, spread, and kill. The only cure is a preventive—do not choose trees with big stubs unless the wounds are quite healed over.

Altogether, including replacement plants, landscape architect Joe Karr figures the average maintenance cost as 25 percent of the cost of installation *each year*. Unlike exterior planting, it can't be let go and taken up later. Most landscape contractors are available for maintenance/guarantee contracts; more and more insist on a one-year contract with installation. In many parts of the country, owners have the option of leasing plants from the contractor rather than buying them—a decision that has more to do with interest rates and liquid capital than gardening. \Box

[See Specifications clinic: Waterproofing for planters, p. 165.]



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WISCONSIN Hans Hansen Importers, Inc., Milwaukee (414)352-3393 Madison Kitchens, Middleton (608)831-2500 nors describes the patterns of "institutional urbanism" and shows how the Oratory became increasingly monumental over time. Then he explains how this monumentality exerted influence over its neighbors. Throughout the book, Connors draws parallels with similar institutions in Rome to reveal the ways in which the building is typical and to emphasize the ways in which it is unique.

The generally unique quality of the Oratory is, of course, due to the genius of its architect, Francesco Borromini, and his ability to turn adversity into positive results. Connors gives us a deeper view of the architect by defining the influence of two individuals who helped Borromini to achieve his solution. Paolo Maruscelli's pre-Borromini schemes for the Oratory are shown to be essential for Borromini's more facile solution, and Virgilio Spada is presented as the de facto patron of the ambivalent corporate client. Spada is a fascinating figure, and it is gratifying to see him given his due. As a critic, he helped Borromini to refine his designs for the Oratory and Casa. He was also the ghost writer for the architect's apologia on the Casa, and during the 16 years that Borromini acted as architect to the Filippini, Spada continually eased conflicts between him and the confraternity. Connors sums up the tension in his introduction: "No group in Roman society was more vocal in its distrust of ornament, no architect more creative in producing it.

Connors interprets Borromini's use of ornament as "didactic communication," and he states, "I have tried . . . to be particularly attentive whenever the documents attach some nuance of meaning to materials or motifs." Connors' sharp eye catches some intriguing allusions and he challenges our generally non-iconographic approach to imagery and materials. In the third chapter, Connors even describes the nuances of meaning ascribed to different types of brick work in 17th-Century Rome. He identifies the Renaissance and Antique prototypes, which provided the associations that Borromini employed to convey ideas through his selection of materials.

Connors is also attentive to the variations on formal motifs that abound in the Casa, the bits and pieces of Renaissance buildings that were employed and re-interpreted by Borromini to pay homage to the local tradition of Classical architecture. It is endearing to know, for example, that the vestibule of the Casa's refectory is a miniature version of the entrance vestibule of Bramante's project for St. Peters. This is not merely source hunting; Connors is telling us something about Borromini's regard for a spiritual ancestor as well, and his confidence to change the scale and function of his exemplar.

The text and notes of the book are a relatively brief 150 pages, backed up by an equal bulk in which documents and drawings are reproduced. The drawings are a delight to study. They are gathered from disparate collections and they are beautifully reproduced. Borromini's studies and working drawings were superbly executed in graphite on cotton paper. Connors arranges them chronologically and provides extensive annotations. Sifting through them, one gleans the sense of the chain of events that Connors describes in the text. The catalog also reproduces views of the Casa by other architects, showing portions of the building that have been subsequently altered or destroyed.

The plates document the building thoroughly. What some of them lack in elegance, they make up in information. The photographs are considerately paired with engravings. This allows comparisons between the building's current condition and its original state or, at times, an idealized view. Connors has cleverly organized this section, and it reinforces many of the perceptions presented in his text.

Two things seem to be missing in the book. First, Connors has not fully dealt with the specific intent of Borromini's decorative program in the building. He demonstrates how Borromini manipulated ornament to influence perception of the building, but he does not indicate the significance of the more figural imagery that exists within the Casa. Second, there is the lack of a thorough, formal description of the major aspects of the building. The introduction provides a skeletal [Books continued on page 200]

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but how many times have you compromised your plans because of uncertainty about the installation or service life of concealed units?

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Dorma thin-line closers are only two inches Leep. This fact alone opens new design vistas for ou in virtually any thin-slab, high-rise construction project.

pecifying Dorma closers is a simple matter. ust two models serve all uses. The Magnum 75 services doors up to 220 pounds and up to 3'6" wide. The Magnum 80 services any door weighing up to 660 pounds with a width up to 4'6". How's that for a big opener?

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Installation is easier when you specify Dorma. The thin-line depth of the Magnum series reduces site preparation. A range of interchangeable spindles from $\frac{1}{4}$ " to 2" in one-quarter inch increments adapts to virtually any thickness floor covering or threshold. Our technically trained sales agents are available to provide design/construction coordination and on-site assistance.

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Books continued from page 195

orientation to the Casa, but it is not elaborated later. Stunning observations abound throughout the text, but they are not gathered together in a rigorous reportage. Connors has spent months looking at the building; he could have guided us a little more to perceive its subtleties.

The book ends with a summary of the influence of the Casa on Borromini's later work. It is an enticing review of the major buildings, and in its brevity it makes one anticipate Joseph Connors' projected monograph on Borromini's *oeuvre*.

Although it is not intended as a guide, *Borromini and the Roman Oratory* would serve as an excellent preparatory book for a visit to Rome. The building has been subdivided in ways that make a logical and sequential visit difficult today. With determination and grace, however, most parts of the building can still be seen. A visit provides the dimension that Connors cannot convey in the book, and makes the book even more valuable.

Secession



Rizou

Olbrich by Ian Latham. New York, Rizzoli International Publications, Inc., 1980. 160 pp., 200 illus., \$40.

This is the first monograph on Olbrich to appear in English and it covers all the major works, both private and public, a well as a number of unexecuted projects. The work is presented chronologically in three main sections: The Early Work and the Vienna Secession; The Buildings and Projects of the Darmstadt Period; and The Later Works Undertaker in Germany. Each building is profusely illustrated by the architect's drawings and plans and by a wealth of photograph of exteriors and interiors taken shortly after the project's completion. Also included are examples of Olbrich's work as a designer of furniture, cutlery, wallpapers, and fabrics, to gether with maps locating the buildings and a complete, up to-date list of buildings and projects.



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EXOLITE sheet can be installed inside or outside your building ... quickly and easily. At substantially less cost than some other glazing alternatives.

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Another alternative is total replacement, removing existing material and replacing it with EXOLITE sheet. There are several different styles and options for easy-to-open units at an easy-toown price.



CYRO Industries A Partnership of Cyanamid Plastics, Inc. and Rohacryl, Inc. An insulating value twice as good as that of single pane glass. And when

installed over single pane glass the insulating value of the system becomes three times better than that of the original single pane. EXOLITE sheets are an investment that pays for itself in terms of energy savings, personal comfort and sound reduction.

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Products and literature

Products



Knuckles' stacking and ganging chair, designed by Jim Hayward, is available with natural or colored stained birch or upholstered seats. Frames come in 17 colors or bright chrome. They are available with arms, tablet writing arm, book pasket, and dolly. Kinetics Furniture. *Circle 228 on reader service card*

Chairs in the 320 series are made in hightly smaller dimensions suitable for work stations. They include closed arm and armless models and two steno/ clerical chairs. Hiebert, Inc. *Circle 229 on reader service card*



The Irish Collection of rugs in 100 perent wool are made by Irish carpetmakrs with traditional motifs woven in. There are three natural colors: offthite, fawn, or biscuit, in sizes from 27" 54" to 9' x 12'. There are plain broadboms in 12-ft widths to complement the esigns. Tintawn Carpets, Ltd. *Tircle 230 on reader service card*

Design Point contract carpet, for eavy-duty wear, is made from Baische's Zefron Blend CR-4 pile of 70 ercent acrylic, 30 percent nylon. It is ffered in eight colorations, each a mixture of three tones to provide soilhiding properties. According to the manufacturer, it meets rigid flame tests. Downs Carpet Co., Inc. *Circle 231 on reader service card*

Vinylcraft vinyl composition tile comes in five styles: Quarry, Abbey stone, Dover slate, Rutherford brick, and Yuma clay. Each is offered in a choice of colors. The tiles are ½-in. thick, 12 in. square. Azrock Floor Products. *Circle 232 on reader service card*



The Avalon seating group consists of a chair, a loveseat or a sofa, and individual units that can be combined into a variety of seating arrangements. Simple lines make the group suitable for covering in almost any fabric. Metropolitan Furniture Corp.

Circle 233 on reader service card

The Metro textile collection consists of several checks, plaids, stripes, and patterns in each color: lacquer, sunshine, midnight, red, sand, powder, ebony, and lime. The 50 percent polyester/50 percent cotton is 45 in. wide. Cohama Specifier.

Circle 234 on reader service card

Sanibel and Nyala are new Vicrtex patterns. The first comes in 20 "natural" colors, the other in 20 "upbeat" colors. Both are 54 in. wide and have a Class A fire safety rating. They resist scuffing and tears, soil and stains. L.E. Carpenter.

Circle 235 on reader service card

Cotton fabrics suitable for residential or contract use include chintz florals with [*Products continued on page 206*]

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205

Products continued from page 205

complementary solids, stripes, and wovens. There are over 100 selections, such as Strawberry Patch, Geraniums, and Plum Blossom. Stroheim & Roman. *Circle 236 on reader service card*

Applications contract carpet of Allied Chemical's Anso IV yarn is a collection of three coordinated plush patterns, each in six colorations. The carpet is stain- and soil-resistant and has a fiveyear warranty. Alexander Smith Carpet. *Circle 237 on reader service card*

LavDek[®] ceramic tiles are available for 18-in. round or 19-in. oval basins to match company's Classic series and Ceramic à la mode patterns. They fit in place to provide a custom installation. Huntington/Pacific Ceramics, Inc. *Circle 238 on reader service card*



A conference table in the 81 series is offered in a wide range of custom sizes. Wood choices are elm burl, olive ash burl, English oak, American white oak, and American walnut. It is shipped with pedestals removed and is designed for easy on-site assembly. Edward Axel Roffman Associates, Inc. *Circle 239 on reader service card*

Fabric louvers of flame-retardant 100 percent wool come in a selection of nine

All-weather Crete ... thermal protection for an architectural achievement ... and pharmaceutical research. Attention to detail is but one of the ways in which architect Paul Rudolph has assured the Burroughs Wellcome Co. building of being an extremely functional corporate headquarters and research center as well as a visual architectural accomplishment. One of these details is the use of All-weather Crete as a roof deck insulation. Completely monolithic, excellent thermal protection properties, slope to drains, vapor transmission and dry application by experienced, licensed applicators all make All-weather Crete the natural insulation choice for buildings demanding a long, trouble-free roof deck or plaza life. See why so many outstanding architectural firms specify the All-weather Crete system for their jobs . . . contact Silbrico Corporation, 6300 River Road, Hodgkins, Illinois 60525, (312) 735-3322, or see Sweets for the address of your local applicator.



Burroughs Wellcome Co, Building, North Carolina • Paul Rudolph, Architect • Photo, Joseph W. Molitor



colors. Louvers of soil-resistant, flameretardant polyester are also available. LouverDrape, Inc. *Circle 240 on reader service card*

Daempa Interval ceiling offers acoustic control and is compatible with existing lighting fixtures and sprinklers. It features a universal carrier that will accommodate three different panel widths. Panels are available in more than 100 colors, including bright metallic finishes. Levolor Lorentzen, Inc. *Circle 241 on reader service card*



The AD Panel System for electronic equipment has two different raceways for power and communications wiring. It has both ambient lighting and task lighting. Panels, work surfaces, and storage units come in wood, fabric, or plastic. Alma Desk Co. *Circle 242 on reader service card*

Focus Lounge seating has molded contour seats and backs for comfort. It is available either fully upholstered or with exposed frame finished in light, medium, or dark oak or walnut. There are a single-seat lounge chair and twoand three-seat sofas. Kimball Office Furniture Co.

Circle 243 on reader service card

Low-voltage track lighting lampholders are available in new designs: Sphere and Sprite in bronze, black, or white; Orbit in polished brass, black, or white. An eight-page brochure illustrates the entire line and includes photometric and design data, as well as charts showing lighting and airconditioning operating cost savings. Progress Lighting, Division of Walter Kidde & Co.

Circle 244 on reader service card

Harvest Line casement fabrics are made from heavy wool yarns for curtains or room dividers. There are four designs, each in six colorways. Mira-X International Furnishings, Inc. *Circle 245 on reader service card*

Lever handles for passage or entry doors, which can be used with company's locks and latches, come in four styles and a choice of six colors. The handles are suitable for residential or light commercial use. The Ironmonger. *Circle 246 on reader service card*

Beta-Care fabrics, woven of Fiberglas yarns, offer not only fire resistance, but low smoke emission. They meet the requirements of the National Fire Protection Association Code 701 for flammability and generate a minimal amount of [*Products continued on page 210*]

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diate delivery from factory inventories in three styles, several backings and a wide range of colors. Other unique anti-static products from UTP include COMPU-MATStm and COMPU-TILES.tm Send for color brochure, samples and price information. See Sweet's Catalog 9.28/Un.

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Products continued from page 206

smoke in accordance with NFPA 258 smoke density tests. In most states, NFPA 701 applies to draperies and cubicle curtains for hospitals. Owens-Corning Fiberglas Corp., Decorative Fabrics Div.

Circle 247 on reader service card

Ironrock^{*} unglazed, lightly textured ceramic tile is available in eight shaded earthtone colors. It has a slip-resistant, long-wearing surface suitable for commercial or residential use on floors or walls, indoors or outdoors. Metropolitan Industries.

Circle 248 on reader service card

Textile wallcoverings, paperbacked for easy installation, carry a Class A fire rating. There are 35 Belgian linens in natural colors, textures, and backgrounds, and coordinating patterns. Weaves permit vertical, horizontal, or diagonal installation. Prestige Wallcoverings.

Circle 449 on reader service card



The Micrographic print collection of fabrics and wallcoverings includes 11 prints from previous designs, reduced in size. Fabrics and wallcoverings come in three colorways in subtle tones inspired by spices and herbs. Ben Rose. *Circle* 450 on reader service card



The Brittania Collection of desks, low boys, armoires, and night stands has rounded corners and flowing lines. Laminate is finished in desert beige with a glossy pinstripe or matte finish with brass accents. Ebenreiter Woodworking. *Circle 451 on reader service card*

SFK surface-mounted indirect lighting fixture is specifically designed to use GE's 175-watt Multi-Vapor II lamp. Requiring only 1 sq ft of ceiling space, it permits indirect lighting in areas where it previously was not possible. Upper and lower aluminum housings are separated by a clear acrylic center band for unobstructed 360-degree illumination. The fixture fits close to the ceiling and has an enclosed top to prevent dust accumulation. Lighting Products Div., McGraw-Edison Co.

Circle 452 on reader service card



Windbell assemblies and mobiles designed by architect Paolo Soleri in bronze, ceramics, and aluminum, come in a variety of sizes and designs. The assemblies can be used in corporate reception areas, gardens, patios, and residential interiors. Zona. *Circle 453 on reader service card Products continued on page 216*

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Coming next month



Footbridge, Pilchuck School, Stanwood, Wa.

While architectural ideas are international —witness the works of Scarpa and SOM in his issue—there are always forces tending to ink buildings to their places. Energy considerations and revived respect for history have given new vigor to the tradition of regionalism in architecture.

The June P/A will concentrate on current U.S. work that shows the influence of a regional vernacular. Not only do these buildngs respond to the demands of local climate and terrain, but they do so with design strategies common to the earlier, anonymous buildings of their regions. The historical prootypes they recall range from ancient Native American structures, as in examples from the Pacific Northwest and the Southwest desert, o the 20th-Century stucco Moderne of Southern Florida.

The several buildings documented in this ssue—seven houses and two small-scaled intitutional buildings—have been selected not nerely as regional examples, but as work of utstanding quality in the broader context of he nation and the world.

7/A in July will include a comprehensive feaare on the introduction of regional shopping enters to American downtowns. Articles on ne physical and economic impact of such enters and on the commercial reuse of urban indmarks—à la mode de Faneuil Hall farket—will be accompanied by features on iree downtown shopping malls of far reater than average architectural interest. A air of **Technics** articles—on building safety nd on photomurals—are planned to round ut the issue. vernacui



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Products continued from page 210



Quilted fabric for wall graphics, soft sculptures, and three-dimensional graphics are available either custom made or from the company's designs. The company also offers insulating

window treatments, acoustic panels, custom displays, advertising, logos, and similar products. Designs are appliquéd rather than silk-screened. Fabrics, primarily canvas and crepe de chine, are treated to resist soil and can be flameproofed. The Laughing Cat Design Co. Circle 454 on reader service card

Textiles in traditional and contemporary designs include prints, textures, and solids in a variety of weights. Fabrics include cottons, wools, and rayons suitable for upholstery or, in some cases, draperies and wallcoverings. Manuel Canovas, Inc. Circle 455 on reader service card

Panels and a complete line of complementary furniture components, both panel-hung and freestanding, make up an office furniture system. There are both vision and acoustical panels. A two-circuit electrical distribution system is available which allows up to 26 duplex outlets to be fed from a single power entry. Rose Johnson, Inc. Circle 456 on reader service card

Literature

Acclimatized Foliage[™] color catalog, brochure, and newsletter show application of tropical plantings. To request copies, write on firm letterhead to Lynn Soowal, Marketing Director, East Marsh Nursery, Inc., 1900 N. Federal High-way, Dania, Fl 33004.



Unusual lighting designs from Italy are illustrated in a full-color folder that opens to poster size. There are table, floor, wall-mounted, and ceiling-hung styles in the group in a wide range of colors and configurations. Venini, Inc. Circle 457 on reader service card

Data stations, shown in an eight-page catalog, are 30-in.-deep units, 36 to 60 in. wide. Tops are golden oak or walnut grain. Steel T-bar legs have adjustable, rubber-cushioned steel glides. Acces-sories shown and described are turntables, electronic modules, and corner wedges to join units. Virco Mfg. Corp. Circle 458 on reader service card

Acrovyn[®] high-impact vinyl/acrylic wallcovering comes in 9 textures, 26 solid colors, and 10 woodgrains. Stains and graffiti are easily removed from the surface. The material has a Class 1 fire rating. The wallcoverings, door and door frame protection, and Acroform decorative panels are illustrated and de scribed in a 10-page, full-color brochure. Construction Specialties, Inc. Circle 459 on reader service card

Architectural ceramics for walls and floors are offered, custom made, in a selection of designs. Custom designs wil also be developed for special applica tions. Ceramic walls, for interior or ex terior use, in over 100 designs, are linear, textured, or sculptured in low [Literature continued on page 218]



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The logic of this tensioned membrane structure is as exciting as its appearance. A canopy over a school yard play area, it provides shelter for outdoor activities in almost any weather. The attractive "upsidedown" design allows rain water runoff through the support columns.

The shelter is fabricated of vinylcoated polyester material held in tension on a steel framework. The result is a lightweight, rigid structure engineered to withstand heavy wind loading. Though it is in a higher priced class than a tent, a tensioned membrane structure offers far greater strength and durability. Compared to alternate structures of wood, steel or masonry, it typically results in important cost savings.

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and high relief. Ceramic floors, for interior use, are low relief in 15 geometric, linear, and textured designs. Design-Technics.

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IV Georges Brass faucets and accessories illustrated in a four-page, full-color brochure, have a lustrous polished brass finish with satin black accents. The line includes lavatory faucets, soap dish,

tumbler holder, towel rings and bars, and robe hook. Kohler Co. *Circle 461 on reader service card*

Interior Lighting Systems catalog describes integrated ceiling/light systems incorporating Holophane[®] energy-efficient luminaires, modular suspension grid units, air distribution equipment, and acoustic and decorative ceiling materials. Color photographs show actual installations. Interior lighting systems for open-plan offices and a selection guide of components for each system are included. Johns-Manville. *Circle 462 on reader service card*

Talavera hand-painted tiles are illustrated in color in a 16-page brochure. The tiles are offered in a wide selection of designs and colors. There are also illustrations of round and oval lavatory bowls, each in two sizes, and designed to accommodate standard plumbing.

Faculty of Engineering



Department of Architecture

Al-Fateh University, Tripoli Socialist People's Libyan Arab Jamahiriya

Applications are invited for the following staff position openings in the Faculty of Engineering, Department of Agriculture:

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Housing is provided by the university. Furniture allowance is 1/6 of annual basic salary given at the beginning of work for married members accompanied by their families, 1/12 of annual basic salary for single members.

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In addition, a baggage ticket of up to 25% of the price of air ticket. Leave travel tickets to the place of recruitment for the staff member and his family are given every year.

Applicants must have MA or MS degree Send resume to: Department of Architecture Faculty of Engineering Al-Fateh University c/o Director of University Programs People's Bureau of the Socialist Peoples Libyan Arab Jamahiriya 1118 - 22nd Street, NW Washington, DC 20037 Their patterns match the tiles or are expanded versions. Accessories shown include switchplates, planters, and bathroom accessories. Materials Marketing. *Circle 463 on reader service card*



Contemporary tables for conference areas, cafeterias, meeting rooms, offices, and waiting areas are described and illustrated in a 16-page brochure. Dimensions for each style are provided. There are table-desks and tables in wood, and photographs of some typical settings. Steelcase.

Circle 464 on reader service card

Torchier indirect high intensity discharge (HID) lighting in contemporary designs is detailed in a six-page brochure. Information provided includes quality of light, flexibility of placement, energy savings, models available, and options. Wide-Lite Corp. *Circle 465 on reader service card*



Rectangular series grilles are illustrated in color in a 22-page brochure Patterns are available in several woods and clear acrylic, framed or unframed Information is provided about sizes materials, and finishes. Customwood. *Circle 466 on reader service card*

Architectural signing systems in man colors, finishes, and sizes are illustrated in an 84-page catalog. Included are sec tions on plastic letters, numerals, and sprues; changeable message systems and foamed plastic letters and graphics Custom sign and lettering service is als offered. Scott Plastics Co. *Circle 467 on reader service card*

Contemporary lavatory and tul hardware is illustrated in an eight-pagbrochure. Some fixtures have inserts o [*Literature continued on page 220*]



Straight-lined architectural simplicity of the Georgian period.

It projects an image of success and achievement. The Collection is thoughtfully designed to adapt to varied administrative needs and harmonize comfortably with all architectural environments. *True Traditional by* KITTINGER

For complete information contact these franchised Georgian Collection Dealers.

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CALIFORNIA Los Angeles: Cannell & Chaffin, Commercial Interiors, Inc San Francisco: Hogue & Associates S.L. Pemberton, Inc.

COLORADO Denver: Howard Lorton, Inc. Scott-Rice Co.

CONNECTICUT East Hartford: B.K.M. Westport: Corporate Interiors, Inc.

DISTRICT OF COLUMBIA Washington: W.&J. Sloane, Inc. Stern Office Furniture, Inc. FLORIDA Miami: Central Office Products Center GEORGIA Atlanta: Ball Stalker Co. ILLINOIS Chicago: Marshall Field & Co., Contract Division INDIANA Indianapolis: Business Furniture Corp. IOWA

Des Moines: Younkers, Inc., Contract Div. KENTUCKY Louisville: Intecon Group

MARYLAND Baltimore: Baltimore Stationery MASSACHUSETTS

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> OHIO Cleveland: Ohio Desk Co. Columbus: Thomas Ruff & Co. PENNSYLVANIA

Philadelphia: A. Pomerantz & Co. Pittsburgh: Joseph Horne Co., Commercial Interiors Div. TENNESSEE Knowille McOuidde Office

Knoxville: McQuiddy Office Designers, Inc. Nashville: McQuiddy Office Designers, Inc.

TEXAS Amarillo: Southern Furniture Co. Dallas: Stewart Office Supply Co. Fort Worth: Ellison's Commercial Interiors

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VIRGINIA Lynchburg: Litton Office Products Centers Norfolk: Litton Office Products Centers Richmond: Litton Office Products Centers Roanoke: Litton Office Products Centers

> WASHINGTON Seattle: Frederick & Nelson

WISCONSIN Milwaukee: Forrer Business Interiors, Inc.

CANADA-ALBERTA Calgary: Contemporary Office Interiors, Inc.

Inc. RGO Office Furnishings, Ltd. Edmonton: Cathcart Executive Office Furnishings & Designs Ltd.

BRITISH COLUMBIA Vancouver: Pacific Office Interiors, Ltd.

Kittinger Company, P.O. Box 508, Castile, New York 14427

Literature continued from page 218

malachite or tiger eye semiprecious stones. Also included are hand-carved marble lavatory bowls and lavatories, each carved from a solid block of marble. Sherle Wagner International, Inc. *Circle 468 on reader service card*

Arcadia[®] entrances and curtain walls for commercial and institutional use are described in a 24-page brochure that includes detail drawings showing construction and installation. Also shown is entrance hardware of aluminum. Entrances include swinging and sliding doors and store-front systems with aluminum framing. Northrup Architectural Systems.

Circle 469 on reader service card

Multi-Mod[®] modular heating and cooling for high-rise buildings features

individual systems tailored to the needs of each floor. The system is described in a 20-page brochure that discusses the concept, advantages over conventional VAV systems, air-side options, and energy-source options. Lennox Industries, Inc.

Circle 470 on reader service card

McAuto energy analysis programs to aid in the design of buildings are described in a six-page brochure. A total of 13 programs are available for solar, heating and cooling loads, energy, ducting, and equipment and lighting. McDonnell Douglas Automation Co. *Circle 471 on reader service card*

Dylite Dylite EPS expanded polystyrene for insulation/sheathing in frame construction is described in a 12-page brochure. It features comparisons of R-values, U-values, and physical properties of the insulation. Cutaway details show actual

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Architect: Harwood K. Smith and H.O.K., Dallas, Texas Photo courtesy Form & Function Magazine.

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Circle No. 330 on Reader Service Caro

construction applications of EPS insulation in walls, ceilings, and roofs. ARCO Polymers, Inc.

Circle 472 on reader service card



Cabinet hardware catalog illustrates and provides technical information, and mounting and installation instructions about hardware suitable for European and contemporary cabinets of face frame construction. It also provides information about hardware for frameless/box style construction. Julius Blum. *Circle 473 on reader service card*

Skylid[®] and Beadwall[®] window insulation methods are described in a fourpage illustrated brochure. Skylid insulating louvers used beneath a skylight are opened during the day to allow the sun to enter, closed at night to seal against heat loss. Beadwall window panels are double-glazed windows. White foam beads spray into the space between the glass layers at night to prevent heat loss and are drained during the day to allow the glass to become clear. Zomeworks.

Circle 474 on reader service card

Modubox variable air volume system offers wide area cooling and heating control. It is available in six sizes, from 200 to 3000 cfm. The proportion of air delivered to individual diffusers is adjusted by balancing dampers at the entrance to ducts leading to diffusers. Carrier Air Conditioning. *Circle 475 on reader service card*

The Solarcrete building system consists

of expanded polystyrene insulation board, wire mesh, and a concrete exterior. Steel rebars surrounding the insulation hold the wire mesh in place. A four-page color brochure describes the system and its application to new construction, rehabilitation of older buildings, and other types of construction. Solarcrete Corp.

Circle 476 on reader service card

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Job mart

Architect: The University of Georgia Planning Office, Athens, Georgia, has an opening for an Assistant to the Campus Architect. Candidates must have a Bachelor Degree in Architecture and be a registered architect. Professional experience in planning, designing and building construction desired. Responsibilities include assisting in master planning, building programming, site selection, plans reviews, contract administration, follow-up and information management for University construction and major renovation projects. Send resume, including salary history, to Manager, Employment and Training Department, Personnel Services Building, University of Georgia, Athens, Ga 30602. An Equal Opportunity/Affirmative Action Institution.

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Architectural Delineator: Career opportunity with prestigious architectural rendering studio available to candidate posessing exceptional skills in perspective layout; proven ability in pen and ink techniques; proficient in design and presentation. Contact Robert Vathauer, Architectural Arts by Vathauer Studio, Inc. 2145 S.W. 2 Avenue, Fort Lauderdale, Fl 33315.

ARCHITECTURE DIRECTOR/DEAN

NEW YORK INSTITUTE OF TECHNOLOGY, Old Westbury, Long Island and New York City, invites applications for the position of Director, Center for Architecture. The appointment is expected to begin in January, 1982. With 1,500 students, the Center for Architecture is a rapidly developing school within the Institute's system. It offers an accredited five year professional degree in architecture, a summer program in Italy, a four year bachelor of architectural sciences degree, and is beginning plans for a Master's degree in Urban Development.

QUALIFICATIONS: Applicants must possess a professional degree in architecture with a recognized record in the fields of architectural research, design, publication or practice. Previous administrative experience is desirable. The ability to communicate effectively and sensitively with students, faculty and other administrators is important, as is an accomplishable educational vision and the ability to complete its goals.

RESPONSIBILITIES: The Director is chief administrator of the Center's Old Westbury and New York City curriculum, coordinating the Center's programs, admissions and appointments, acting as the Center's representative to the Institute's central administration and to the public.

SALARY: Negotiable, depending on reputation and experience. Applicants should send a letter and resume, along with the name, address and telephone number of three references to:

DR. T.K. STEELE, SENIOR VICE PRESIDENT FOR ACADEMIC AFFAIRS NEW YORK INSTITUTE OF TECHNOLOGY

Old Westbury Campus, Old Westbury, NY, 11568 (Applications are due by July 15, 1981

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Faculty Position: Architectural Engineering Technology, Roger Williams College. Appointment, subject to final budget approval, beginning September, 1981, for teaching courses in Architectural Design and Technology. Master's Degree in Architecture required. Teaching experience, work experience, and interest in historic preservation helpful. Ph.D. Architectural Registration desirable. Send resume, documents and a letter speaking directly to the requisites of the position to: Personnel Office, Roger Williams College, Bristol, Rhode Island 02809, no later than May 29, 1981. An Equal Employment Opportunity Employer.

Faculty Position: Building Systems or Project Development—Cornell University School of Hotel Administration seeks junior or senior faculty to teach courses in either (1) hotel mechanical and electrical systems, energy conservation, and properties management or (2) planning, development, and construction of hotels, restaurants, and related properties. Preferred qualifications include training and industry experience in engineering, architecture, or project management; advanced degree; interest in education and research; and the ability to work in an interdisciplinary hospitality management program. Send

resume and letter of interest immediately to: Assistant Dean James White, Statler Hall, Cornell

University, Ithaca, NY 14853. Gresham and Smith—a multi-disciplined architectural and engineering firm based in Nashville, Tennessee is seeking top level candidates to fill vacancies created by growth. Architectural Designers—Ten or more years experience in medical, commercial, and industrial facilities is desired. Project Managers—Registered architects with ten years or more experience in medical facilities design are needed. Positions are available in the firm's home office as well as other regional offices located in the Southeast. All replies will be received in strict confidence. Please direct your re-

[continued on page 224]

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It's simple, fast and economical ... eliminating timeconsuming installation of expensive treated-wood nailers. The Nailerless Roof Edge works with various insulation thicknesses: single membrane or built up systems; over or under insulation; even with poured decks. There's no wood to rot. Insulation breathes at roof edge, so there's no trapped vapor. This unique roof edge requires fewer trades for single contractor responsibility. See W. P. Hickman Co. in Sweet's (7.3b/Hi).



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> Photo: Aldo Ballo Design: Vignelli Associates

Circle No. 313

Job mart continued from page 222

sume with salary requirements to: Robert N. Gross, Manager of Human Resources, Gresham and Smith, 2222 State Street, Nashville, Tn 37203. 615/327-1071, EOE/MF.

Interior Designer: Immediate opening with expanding design department. Qualifications include a 4 year college degree and experience in commercial office, institutional and related spaces. Candidate should have 1 year or more of experience in drawing and detailing of quality contemporary interiors. Reply Box 1361-372, *Progressive Architecture*. An Equal Opportunity Employer.

Princeton University Dean of the School of Ar-

chitecture: Princeton University is seeking a Dean of the School of Architecture to take appointment July 1, 1982. Scholarly and/or professional qualifications for appointment to the tenured faculty in the School of Architecture are required. The School of Architecture offers an undergraduate Bachelor of Arts and graduate degree programs leading to the Master of Architecture and the Doctor of Philosophy. Applicants should send a curriculum vitae to Aaron Lemonick, Dean of the Faculty, 9 Nassau Hall, Princeton University, Princeton, NJ 08544. Princeton University is an Equal Employment/Affirmative Action Employer.

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Please address all correspondence to box numbered advertisements as follows:

Progressive Architecture % Box 600 Summer Street Stamford, Connecticut 06904

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1 The Architecture of the Ecole des Beaux-Arts Edited by Arthur Drexler with

essays by Richard Chafee, David Van Zanten, Neil Levine and Arthur Drexler 423 pp., illus. . \$55.00

The most comprehensive analysis and documentation of Beaux-Arts architecture ever published. Includes large-scale drawings of elevations and plans and photographs of major French and American Beaux-Arts buildings (including Pennsylvania Station and Grand Central Terminal) Circle B601 under Books

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Edited by Donald Watson 305 pp., illus. \$24.25

This precedent-setting book provides the bridge between architect and engineer, practitioner and researcher. so necessary to the development of a rational approach to energy conservation. Not timited to new building deit also includes methods of analyzing existing structures and specific ways to reduce their energy consumption Circle B602 under Books

3 Architectural Rendering: The Techniques of Contemporary Presentation

By Albert O. Halse, 326 pp., illus., 2nd edition, 1972....\$39.95

This completely up-dated revision of the most widely used guide to archi-tectural rendering covers all working phases from pencil strokes to finished product — and shows how to obtain the desired mood, perspective, light and color effects. select proper equip-ment and work in different media. Circle B603 under Books

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6

4 Architecture: Form, Space and Order

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This lavishly illustrated volume shatters the myth that architect-designed houses are more costly than de-veloper-built houses. The superb photographs, floor plans, drawings, and details of interiors and exteriors present a wealth of ideas on how to construct beautiful and unique houses within limited budgets Circle B605 under Books.

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The first comprehensive guide to de-sign competitions based on American practices, it examines in detail all important aspects of this timely subject. including how competitions work and the ground rules that govern most competitions Circle B606 under Books

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A comprehensive manual that describes the essential characteristics and consequent design requirements of every type of pool imaginable. Also deals in great detail with more techni

cal matters, such as structur lems and how to solve them, fi filtration, circulation and wate ment, heating and ventilating. Circle B607 under Books.

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Stevenson Oles, illus.... \$34.50 piously illustrated, clearly orexplanation of his value delineation system, the author presents a detailed description of the process which has resulted in these awardwinning delineations that show realistically how a designed structure will appear when built. **Circle 8614 under Books.**

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16 Recreation Planning and Design

By Seymour M. Gold 322 pp., illus. \$27.50

This book integrates systems and site planning with state-of-the-art examples highlighting recreational potentials of cities in the 1980's. Successful plans and projects are described showing innovative approaches to recreation planning. **Circle B616 under Books**

NEW*

17 The Interiors Book of Shops & Restaurants

By Interiors Magazine 144 pp., illus. ... \$25.00 Forty-five projects, showing the work of prominent architects and designers, encompass the entire field of wholesale and retail design. Projects are divided into four categories: restaurants, stores and shops, showrooms, and malls and marketplaces. Each project requires the designer to create a strong image that the potential customer can identify and an ambiance that is relaxing. Plans and drawings are included to understand the concepts. **Circle B617 under Books.**

18 Design Cost Analysis for Architects & Engineers

By Herbert Swinburne. 317 pp. Illus...t \$21.50 This first-of-its-kind book shows architects and engineers how to analyze and estimate the costs of building construction during the design stage when the potential for controlling costs is greatest. Circle B618 under Books.

19 Architectural Stained Glass

Edited by Brian Clarke 234 pp., illus....\$32.95. The contributors to this book (through their stunning designs) emphasize stained glass as a constructivist art form. taking it out of its medieval ecclesiastical context and putting it into a contemporary framework, both secular and architectonic. **Circle B619 under Books.**

20 The Earth Shelter Handbook

By Tri-Arch Associates, 244 pp., illus... \$12.95 This paper-back handbook presents to architects, builders, private homeowners and commercial clients an easy-to-follow, step-by-step evaluation plan for site selection, soil evaluation and criteria for placement in relation to wind and sun. **Circle B620 under Books.**

21 The Architecture of Frank Lloyd Wright A Complete Catalog Second Edition

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