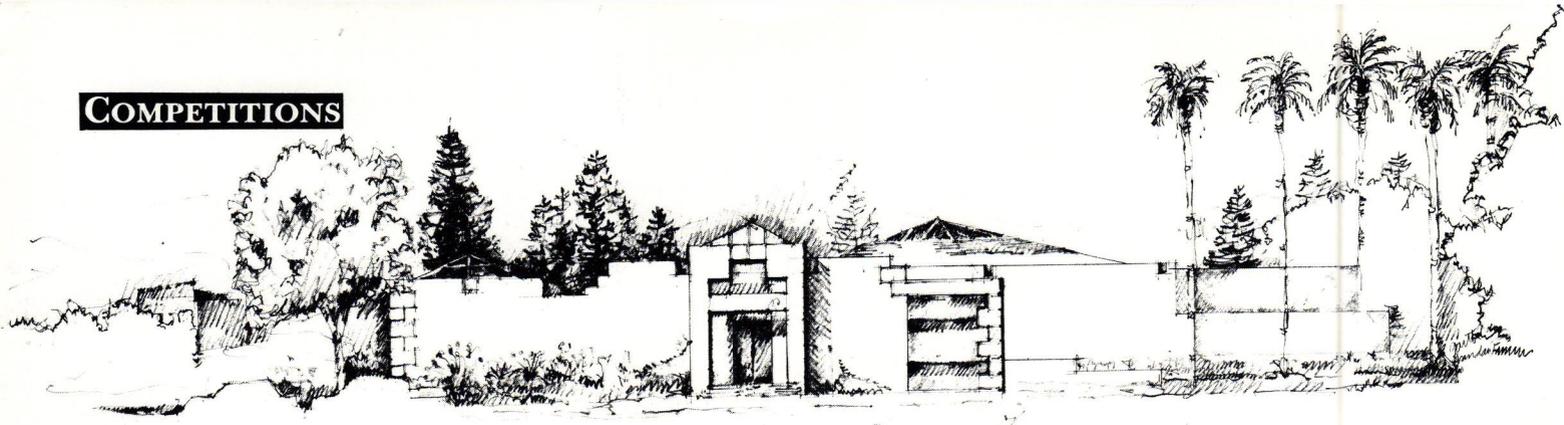


# ARCHITECTURE CALIFORNIA

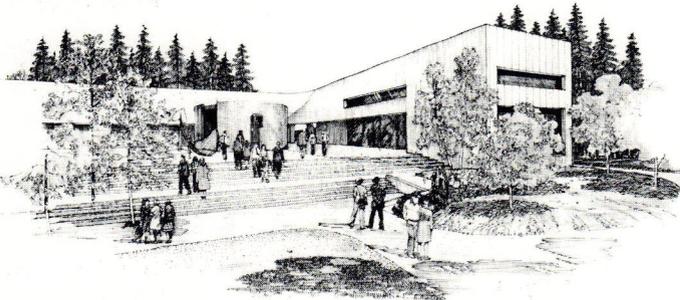
JANUARY • FEBRUARY 1983 • CCAIA • VOL. 5, NO. 1



## COMPETITIONS



Barcelon & Jang

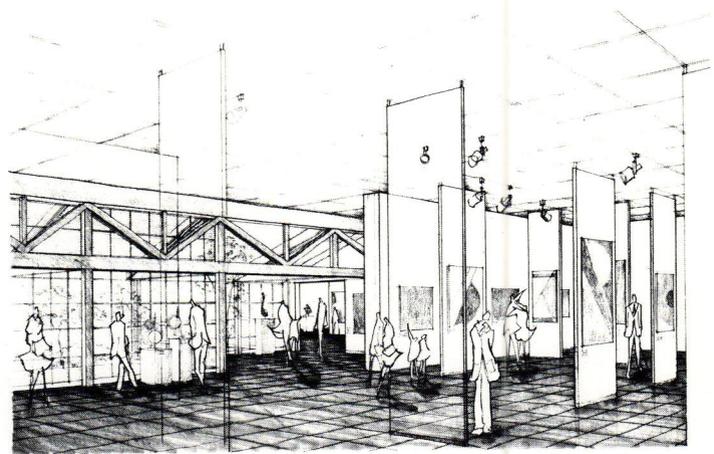


VIEW TO EAST

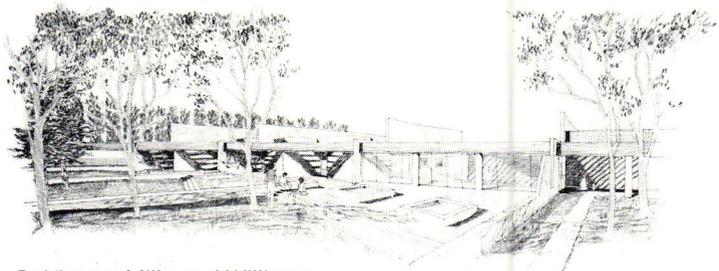
Spencer Associates/Bowers, Richert, Gratiot



William Turnbull, Jr., FAIA and Frank O. Gehry and Associates



Rosekrans and Broder Inc.



Robinson, Mills and Williams

# Triton Museum of Art

The San Francisco architectural firm of Barcelon & Jang won the Triton Museum of Art's recent Architectural Design Competition following a three day, on-site charrette underwritten by the National Endowment for the Arts. Program guidelines for the \$3.5 million Museum included respect for the parksite, accommodation of current buildings, energy conservation, controlled

light, and possibilities for phased construction. Finalists participating in the charrette included Robinson, Mills and Williams, Rosekrans and Broder Inc., Spencer Associates/Bowers, Richert, Gratiot, and William Turnbull, Jr., FAIA and Frank O. Gehry and Associates. Groundbreaking for the new facility is scheduled to take place in the spring of 1983.

Barcelon & Jang's plan for the Triton Museum of Art includes a 33,000 square foot finished structure of pale beige stucco and steel, with glazed lobby overlooking a sculpture garden. The building will rest on a cooling slab of concrete and will feature a series of closeable turretted skylights. The Museum, approached by an avenue of palms, will be surrounded by extensive landscaping, as well as a close re-grouping of

the four currently existing tile and stucco pavilions to the northwest of the historic Jamison-Brown House already on the site.

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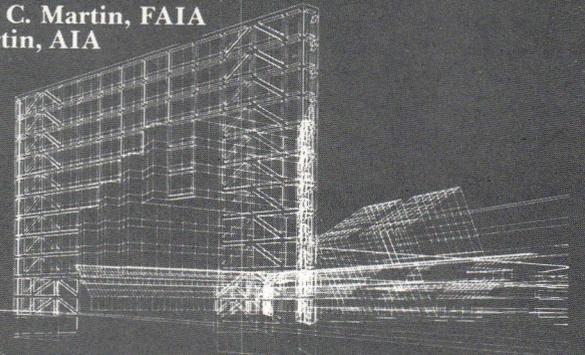
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- Ventura County Chapter  
Albert A. Okuma, Jr., AIA

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*The 21st Annual Sandcastle Contest, sponsored by the Monterey Bay Chapter, American Institute of Architects, attracted 190 entries this year. About 6,000 people turned out to participate, watch and enjoy the day at Carmel Beach. The judges are selected from Chapter architects and city officials. Bribery of the judges is officially encouraged, according to Chapter president Daryl Hawkins, AIA. Over the years, the Contest has drawn so many people that the city of Carmel has asked the Chapter to keep the date of the Contest secret until three days before the event. This year's Sand Marshal was Richard Barrett, AIA.*

## Olympics Arch Design Contest

An international competition for the design of a Gateway Arch for the 1984 Summer Olympics in Los Angeles is being sponsored by the Los Angeles Chapter, the American Institute of Architects. First prize is \$1,000, second is \$500, and third is \$250.

An entry form can be obtained by sending a \$25 check or money order to LA/AIA, 8687 Melrose Ave., Los Angeles, CA 90069. Indicate "Olympic Gateway Competition" on the check.

## Solar Breeder

The world's first "solar breeder," designed to use sunlight to manufacture solar cells, is scheduled to go into full production next year in Frederick, Maryland.

An array of over 224,000 solar cells, mounted on a steeply pitched roof facing south, provides the 200 kilowatts of power necessary to meet all the plant's needs, including electricity for production equipment for making solar cells, lighting, air conditioning and even typewriters, according to a report in *Science News*. A bank of 480 special lead acid batteries stores the energy generated by the roof array and provides power for rainy days.

The \$6 million demonstration facility, built by Solarex Corp., is said to be the first solar cell-powered factory totally independent of an utility company. Solarex plans to sell the concept of solar-powered factories. "In most cases, we will provide an industrial shell, like a prefabricated building with its own power supply attached," says Solarex president Joseph Lindmayer.

## Los Angeles Design Awards

Fourteen Awards and 11 Citations were presented to architects in the 1982 Design Awards program sponsored by the Los Angeles Chapter of The American Institute of Architects.

In the category of Commercial Buildings, Awards were presented to the Conference Room, 1639-19th Street, Santa Monica, Carde/Killefer Corp., architects; Prudential Insurance Co. of America Western Home Office, Albert C. Martin & Associates, architects, with Gensler & Associates, interior designers; and Summa Office Building in Las Vegas, Archisystems International, architects. Citations went to the Bellevue Square Shopping Center in Bellevue, Washington, Charles Kober Associates, architects; Hertz Vehicle Maintenance Turnaround Facility, Los Angeles,

Daniel, Mann, Johnson & Mendenhall, architects; and William Morris Agency expansion, Beverly Hills, Maxwell Starkman, AIA Associates, architects.

One Award in the category of Educational Facilities was given to the Fritz B. Burns Building at the Loyola Law School, Frank O. Gehry & Associates, architects and Brooks Collier & Associates, associate architects. Citations in this category went to the Ahmadu Bello University Theater Workshop in Zaria, Nigeria, Steven D. Ehrlich, AIA, architect; the Business Education Vocational Building at Santa Monica College, Daniel, Mann, Johnson & Mendenhall, architects; and the School for the Blind in Fremont, Daniel L. Dworsky, FAIA & Associates, architects.

For Fantasy, an airbrush abstraction of a building by James Stafford and a neon birthday cake fantasy atop Los Angeles City Hall by Eric Zimmerman and Bernard Zimmerman, FAIA received Awards. A design scheme for an artistic center in Santa Monica, by Panos Koulermos, AIA, received a Citation.

Three Awards given in the Government Buildings category went to the California State Capitol restoration, Welton Becket Associates, architects; the Solar Photovoltaic Space Frame Auto Shade Structure, King Abdul Aziz International Airport, Jidda, Saudi Arabia, Richard Schoen, AIA, RSA Architects Inc.; and Thousand Oaks Public Library, Albert C. Martin & Associates, architects. The Brea Civic and Cultural Center, Daniel L. Dworsky, FAIA & Associates and John Carl Warnecke & Associates, architects received a Citation.

For Multi-Family Residences, Awards went to the Pacific Condominiums, Santa Monica, Stafford/Binder-Rebecca Binder, AIA, architects; and Ronda Apartments restoration, Los Angeles, Martin B. Gelber, AIA & Associates, architects. A Citation was given to Larrabee Condominiums, Los Angeles, John Siebel Associates, architects.

In the Single-Family Residences category, Awards were presented to Beachfront Home in Malibu, Ron Goldman, AIA, architect; and Hacker Residence, Los Angeles, Mayer/Taylor, architects. The Lewin Residence renovation (of a house designed by Richard Neutra in 1938), Gwathmey Siegel & Associates, architects, received a Citation.

The Promenade Condominiums, Los Angeles, Kamnitzer Cotton Vreeland,



*The Fritz B. Burns Building at the Loyola Law School received an Educational Award from the Los Angeles Chapter/AIA. Architect: Frank O. Gehry & Associates, associate architects Brooks Collier & Associates.*

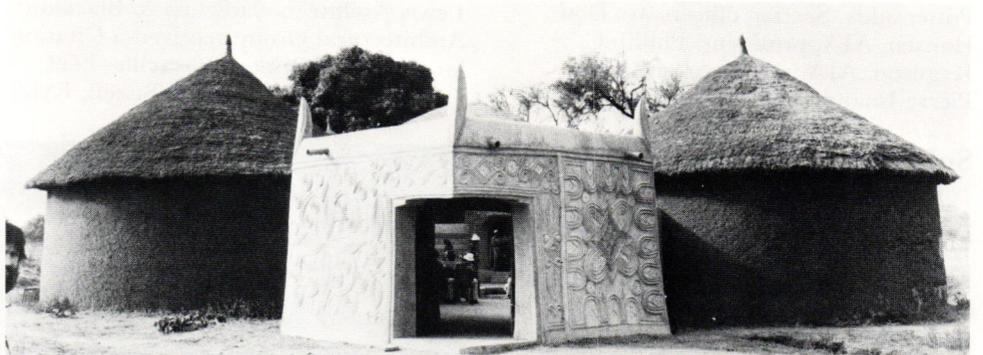
architects received a Citation for Urban Design.

Jurors were Norman Fletcher, FAIA of The Architects Collaborative, Cambridge, Massachusetts; David Gebhard, professor of architectural history, UC Santa Barbara; and Donn Logan, FAIA of ELS Design Group, Berkeley. Marvin Malecha, AIA, dean of the School of Architecture, Cal Poly Pomona, was chairman of the 1982 Design Awards Program.

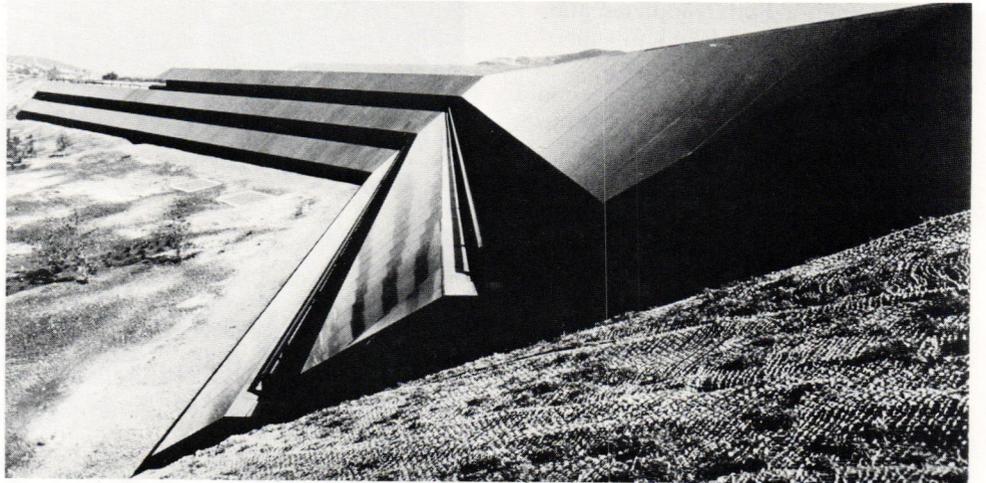
### **New Section Formed**

The San Diego Chapter, the American Institute of Architects has formed a new Section to serve 100 architects and 70 associates in San Diego's North County. The Section will act as an educational arm for the members and will lobby with North County officials on behalf of local architects. "We want the city councils to know we are here and to encourage the use of local architects, instead of going to San Diego or Los Angeles for an architect," says Gary J. Potter, AIA, publicity director for the new Section.

"The major goal of the Section is to provide the same benefits and activities in the North County area as the San Diego Chapter provides for its members,"



*The Ahmadu Bello University Theater Workshop in Zaria, Nigeria received an Educational Citation from the Los Angeles Chapter/AIA. Architect: Steven D. Ehrlich, AIA.*



*Prudential Insurance Co. of America's Western Home Office in Westlake Village received a Commercial Building Award from the Los Angeles Chapter/AIA. Architect: Albert C. Martin & Associates with Gensler & Associates, interior designers.*



*Pacific Condominiums in Santa Monica received a Multi-Family Residences Awarded from the Los Angeles Chapter/AIA. Architect: Stafford/Binder-Rebecca Binder, AIA.*

Potter adds. Section officers are Don Hansen, AIA, president; Phillip C. Ferguson, AIA, secretary; and Jean-Pierre Imandt, AIA, treasurer.

### Solar Design Conference

Projects now are being sought for presentation at the second annual Santa Barbara Solar Design Conference, sponsored by the California Energy Commission and the Santa Barbara Chapter, AIA. Entitled "Solar Design in Santa Barbara: Remodeling for Conservation," the Conference will emphasize retrofitting existing buildings for energy conservation and solar energy. Both completed and proposed projects will be eligible for presentation.

Anyone interested in presenting should submit a photograph of the built project, or drawings of the proposed project, along with a brief written description, no later than January 31, 1983, to Santa Barbara Solar Conference, c/o CEC, 924 Anacapa St., Santa Barbara, CA 93101.

### Central Valley Awards Program

Nine awards were presented in the Biennial Awards Program of the Central Valley Chapter, the American Institute of Architects. To celebrate the Chapter's 40th anniversary, an additional category of awards recognized projects completed in the first 25 years of the Chapter's history.

A Special Award for excellence was presented to the California State Capitol Restoration, supervising architects John C. Worsley, FAIA and Dale E. Dwyer, AIA, Welton Becket Associates, architect.

The 1982 Honor Award went to Las Victorianas in Sacramento, Dreyfuss & Blackford Architectural Group, architect (see page 24). The Sacramento Bee Newspaper, Liske, Lionakis, Beaumont & Engberg, architect, received a Merit Award. Citations went to Brownie's Reprographics Annex, Vitiello-Niyya, Inc., architect; Cordova Village, Rancho Cordova, Foothill Design Group, architect; and World Savings Plaza, Nacht & Lewis Architects.

The 40th Anniversary Honor Award was presented to Dreyfuss & Blackford Office Building—1965, Dreyfuss & Blackford Architectural Group, architect; the Merit Award recognized the Sacramento County Courthouse—1965, Starks, Jozens & Nacht, AIA, Nacht &

Lewis Architects. Dreyfuss & Blackford Architectural Group received a Citation for the Nut Tree near Vacaville—1959.

The jurors were George Bissell, FAIA

of Newport Beach, Clinton Marr, FAIA of Riverside, and William Turnbull, Jr., FAIA of San Francisco. Michael Rainforth, AIA chaired the Awards Program.



*The Dreyfuss & Blackford Office Building, 1965 received the 40th Anniversary Honor Award from the Central Valley Chapter/AIA. Architect: Dreyfuss & Blackford Architectural Group.*



*The Sacramento County Courthouse, 1965 received the 40th Anniversary Merit Award from the Central Valley Chapter/AIA. Architect: Starks, Jozens & Nacht, AIA.*



*The Sacramento Bee Newspaper received a Merit Award from the Central Valley Chapter/AIA. Architect: Liske, Lionakis, Beaumont & Engberg.*

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### President's Message

During times of economic downturn, when capital expansion is curtailed, the architectural profession is first to suffer, since it plays a major role in the expansion of American business and housing. In response to losses of revenue, architects' offices look for ways to cut back on expenditures in order to ride out the hard times. But the California Council must respond to the needs of its members in good times as well as bad. It cannot reduce necessary services. If anything, this is the time when the need for a strong state organization is greater than ever. The CCAIA now faces such a dilemma and must find creative ways to bridge the economic gap.

In order to tighten our belt, this year's priorities have been reordered and cuts, where made, are in the enrichment areas, not in necessary services. Focus remains on those programs which are absolutely essential to the betterment of the practice of architecture. Recent history indicates that the move to Sacramento and the assembly of an effective staff has given us increased visibility with lawmakers and better relationships with state organizations. We must continue to strengthen these relationships, as well as to enhance the profession's public image.

The California Council is entering 1983 with an enthusiastic Executive Committee, Board of Directors, membership and staff. The product of the Planning/Finance effort in 1982 resulted in a new programmatic structure to respond to a lean budget and a slightly reduced staff. In 1983, CCAIA will emphasize:

- **Legislative Activity.** We will continue to place a high priority on governmental relations to build on the successful

pro-active base which has been established over the past 18 months.

- **Registration Issues.** The compromise which was reached with the CCAIA, the California Board of Architectural Examiners (CBAE), and the National Council of Architectural Registration Boards (NCARB) concerning the new architect's examination was a tremendous accomplishment in 1982. The Council will continue to work closely with its licensing body, the CBAE, in 1983. Resolution of the educational requirements of the NCARB is a *must* for this year.
- **Unlicensed Activity.** The CCAIA is not interested in fighting "turf" battles. Rather, with regards to unlicensed activity, we seek to protect the public health, safety, and welfare. We support the "freedom to build," but the exempt areas in which unlicensed persons can practice should not be raised to an extent where the public is inadequately protected. Nor should the public be faced with numerous classifications of registration.
- **The Institute.** We anticipate working more closely than ever with National AIA, so as to be most effective. In particular, we will seek not to duplicate on the state level programs which are offered at the national level. Close attention will remain on the A-1 Resolution in order to monitor and assist National in implementation of that Resolution.
- **CCAIA Foundation.** We will work to establish a stronger, more viable CCAIA Foundation, capable of func-

tioning as a true foundation, free from dues contributions, which is able to apply for and receive grants, provide beneficial tax opportunities, provide an opportunity for the public to participate as members, and respond to educational opportunities and other creative undertakings.

- **Allied Professional Organizations.** We will establish closer working relationships with fellow professional organizations on common issues such as liability, licensure, and practice issues.
- **Public Awareness.** Through the continued expansion and improvement of *Architecture California*, insight into the practice of architecture in California will be furthered within the profession and with the public at large.
- **Education.** We will strengthen the tie between the profession and the schools of architecture, and call upon the schools to participate with us in areas of mutual concern.

Among other efforts during the past two years, the Board of Directors has completed the task of reorganizing and updating the Rules and Bylaws of the Board. Since the Board of Directors has only four meetings this year, we will spend most of our time working on issues which impact the profession of architecture, rather than on the organization of the Board itself.

The California Council, the American Institute of Architects will go through 1983 with dues and revenues similar to those of last year, but below those of the previous two years. We believe we are



CCAIA's 1983 Executive Committee, from left: Robert E. Allen, AIA; Warren D. Thompson, AIA; Lawrence P. Segrue, AIA; Virgil R. Carter, AIA; Cyril Chern, AIA; and Harry Jacobs, AIA.

David Portrick

responding to the needs of California's architects by creating ways of using fewer, but sharper tools.

I have faith in California architecture and the economic future of our state. We shall emerge from the present recession stronger than ever, and the Council will have again demonstrated that it is an exemplary organization providing necessary resources to the profession in any economic climate.

—Professor Paul R. Neel, AIA  
President, CCAIA

### CCAIA Elects New Officers

At the Board of Directors' meeting preceding the 37th Annual CCAIA Convention, the following officers were elected for 1983:

Harry Jacobs, AIA

East Bay Chapter  
First Vice President

Cyril Chern, AIA

Los Angeles Chapter  
Secretary

Warren D. Thompson, AIA

San Joaquin Chapter  
Vice President/Communications/  
Public Awareness

William E. Patnaude, AIA

San Joaquin Chapter  
AIA Director

Martin W. Waldron

San Francisco Chapter  
Associate Director/North

Ronald C. Takaki

Los Angeles Chapter  
Associate Director/South

Kim Larson

Central Valley Chapter  
Alternate Associate Director/North

Anthony B. Araiza

Inland California Chapter  
Alternate Associate Director/South

Officers continuing their terms in 1983 are President, Professor Paul R. Neel, AIA, Central Coast Chapter; Treasurer, Virgil R. Carter, AIA, Santa Clara Valley Chapter; Vice President/Governmental Relations, Robert E. Allen, AIA, San Francisco Chapter; Vice President/Education/Professional Development, Lawrence P. Segrue, AIA, San Joaquin Chapter; and AIA Directors George Bissell, FAIA, Orange County Chapter, Harry C. Hallenbeck, AIA, East Bay Chapter, and Jon Peter Winkelstein, FAIA, San Francisco Chapter. Paul W. Welch, Jr. is CCAIA Executive Vice President.



Architect: Dale Naegle, AIA Architecture & Planning, Inc.  
Photographer: Wes Thompson

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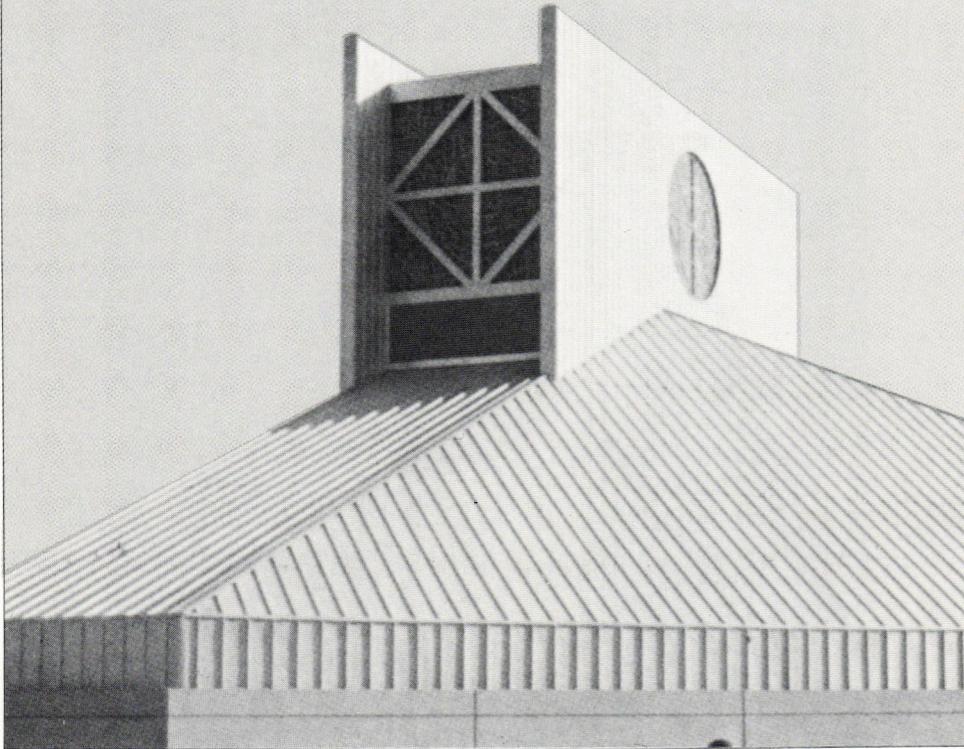
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Clarence Joseph Paderewski, FAIA:  
*"An architect should contribute generously of himself and his talents at every opportunity in order that his community may be a better place."*

### Distinguished Service Award

Clarence Joseph Paderewski, FAIA was presented the Distinguished Service Award for 1982 by the California Council, the American Institute of Architects. Only one Distinguished Service Award is presented by CCAIA each year to recognize and honor a long and significant career in architecture. A graduate of the University of California, Berkeley, Paderewski was honored by CCAIA "in celebration of 50 years of distinguished accomplishments in the practice of architecture."

Paderewski, a principal in the firm of Paderewski, Dean, Albrecht, Stevenson, Architects and Planners, designed the San Diego Airport's East Terminal, San Diego County University Hospital, hotels, office and industrial facilities, and numerous elementary and secondary schools. He also designed the world's first exterior glass elevator, at San Diego's El Cortez Hotel.

The Cleveland native has done extensive work on school building design, and is a past member of the California State Board of Architectural Examiners. He has continued to serve the board as an expert witness and examination commissioner for 34 years. As a member of the National Council of Architectural Registration Boards, he succeeded in initiating registration reciprocity among all 50 state boards and encouraged them to agree on a uniform examination.

Paderewski's civic activities include present and past affiliation with the San Diego Chamber of Commerce, the San Diego Downtown Association, American National Red Cross, the San Diego Symphony Orchestra Association, the Salvation Army and Lion's Club.

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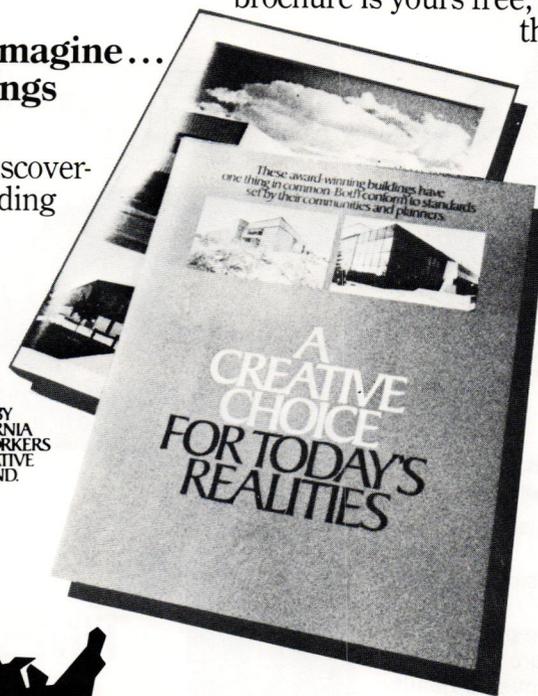
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He received a "special award" from the San Diego Chapter, AIA for outstanding service at the local level. Last year he was knighted by the Polish Government in Exile for his outstanding contributions to architecture as a Polish American and for his help and service to Poles here and abroad.

### Commendation for Excellence Awards

The California Council, the American Institute of Architects (CCAIA) has announced the recipients of its annual Commendation for Excellence Awards. The awards recognize extraordinary achievement by architects and non-architects in allied arts, education, media, technology and government.

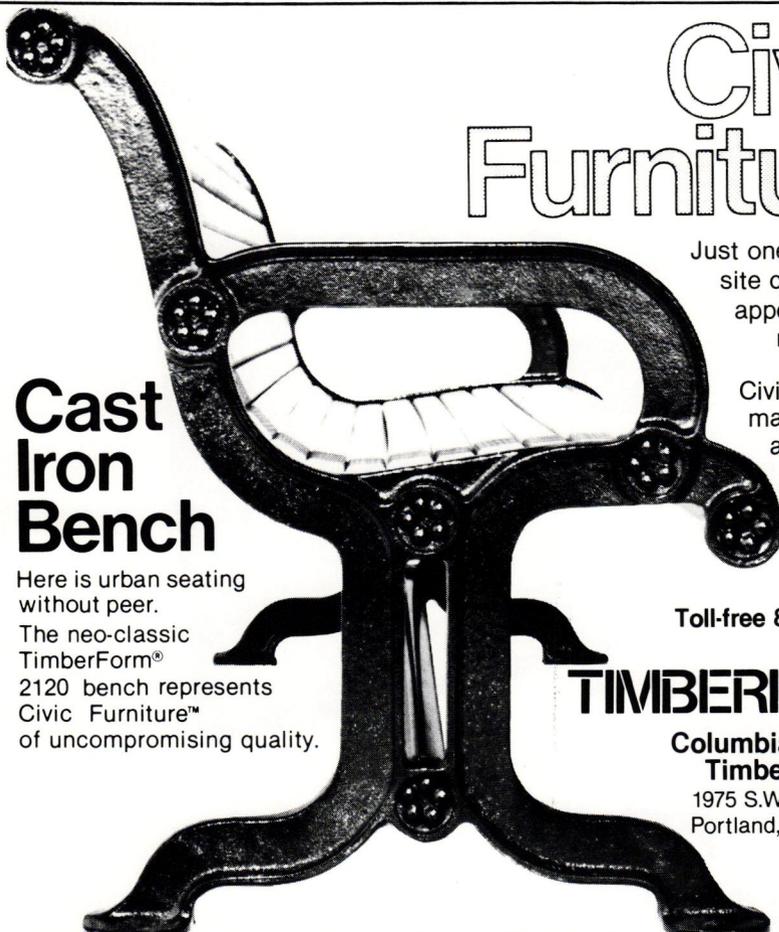
San Francisco graphic designer Michael Vanderbyl was honored for his design of the logotype and format of the AIA/San Francisco Chapter's centennial directory and posters. His "AIA100" poster of Bernard Maybeck's Palace of Fine Arts was used by CCAIA to promote its 1982 convention.

Tom Moon, AIA was honored for excellence in education in recognition of his "extraordinary concern and involvement as a practicing architect in advancing architectural education." Moon is affiliated with many educational groups and schools, including serving as an instructor at the University of California, Irvine. He is a founder and past president of the California Council Architectural Educators, and teaches special courses in architecture at the elementary school level.

Excellence in media honors were awarded to John Louis Field, FAIA of San Francisco for his work on two public television documentaries, "Cities for People" and "The Urban Preserve." These pioneer efforts brought the subject of architecture to millions of viewers via the medium of television.

The California State Capitol restoration brought excellence in government honors to Assemblyman Louis J. Papan (D-Daly City) and Leon D. Ralph, legislative advocate and former Assemblyman (D-South Gate). Present and previous chairmen, respectively, of the Joint Rules Committee of the state Legislature, Papan and Ralph were responsible for overseeing the mammoth project, thought to be the most extensive restoration ever undertaken.

A seven-year effort by the AIA/San Francisco's Committee on Production Office Procedures brought it an award for excellence in technology. Spearheaded by George Cuevas, AIA and August Strotz, AIA the "POP" manuals outline methods, procedures, standards and schedules for construction documents.



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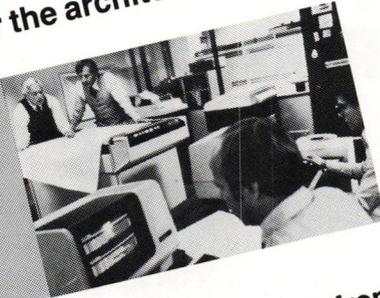
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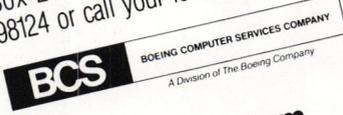
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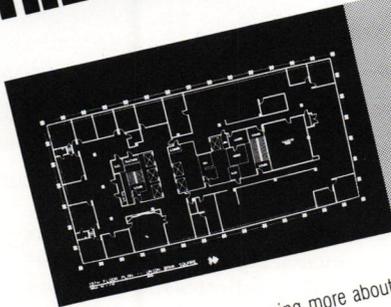
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# CCAIA HONOR AWARDS

*Jurors for the first annual Honor Awards Program sponsored by the California Council, the American Institute of Architects were Donald Canty, Editor in Chief of the AIA Journal; James Ingo Freed, FAIA of I. M. Pei & Partners; and Hugh A. Stubbins, FAIA of Cambridge, Massachusetts.*



Peter Henricks

## Saks Fifth Avenue, San Francisco Hellmuth, Obata & Kassabaum, Inc.

An extremely tight site was an influential factor in designing for this prime retail location. A significant urban design response was required in relation to Union Square Park and the corner intersection of Post and Powell Streets, one of the busiest crossroads in San Francisco.

A West Coast "flagship" for a prestigious retail chain, the Saks Fifth Avenue department store is five levels—higher than usual

these days—due to site requirements. Significant exterior detailing indicates the five floors, and a large escalator well relates all floors to one another on the interior.

Windows, normally omitted in department stores, are used as scaling elements, along with heavily modeled, pre-cast concrete and granite panels. A polished bronze store front system provides an appropriate

backdrop to a major urban space, as well as an elegant shopping (and window shopping) experience.





Stanford Shopping Center, Palo Alto Bull Field Volkman Stockwell

Julius Shulman

The redesign of this 1950's shopping center did *not* involve the preservation of handsome old buildings with beautiful detailing, rich paving or enduring materials. The buildings were all clad in nondescript precast panels. There was so much exterior wall surface that treating the buildings except in very minor ways was economically unfeasible. The solution lay in creating a rich and varied place between the buildings and letting the stores' own renovations dominate the

shopping experience.

Instead of a 10 foot high, 900 foot long walkway covered with corrugated aluminum, we created a series of open loggias on a grand scale. The loggias are connected by courtyards, with a major pavilion for promotional events at the center.

In spite of the prevailing shopping center theories, we succeeded in convincing the client not to enclose the mall, since the single existing virtue of the center was its beautiful trees and year-round

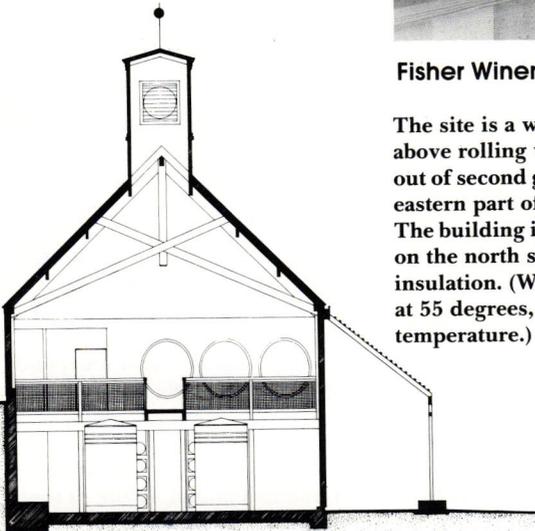
pleasant outdoor environment. We argued that, by not creating an indoor mall, the energy savings alone would give the center a significant economic advantage over its competitors.

The economic feasibility of achieving the renovation of the existing mall depended on the addition of 200,000 square feet of new retail space. This space was added primarily in new buildings surrounding a new plaza, and by narrowing the original mall at intermittent locations.

The center's atmosphere is contemporary, but with a traditional echo of arches repeating those on the adjacent Stanford University campus. The arches were created by welded clusters of steel pipes. The pipes develop a self-supporting cantilever for the pavilion arches which remain independent of the existing structures. Their size generates a new, dynamic and elegant scale where previously everything remained bound by the 10 foot high covered walkways.



Rob Super



**Fisher Winery, Santa Rosa** MLTW/Turnbull Associates

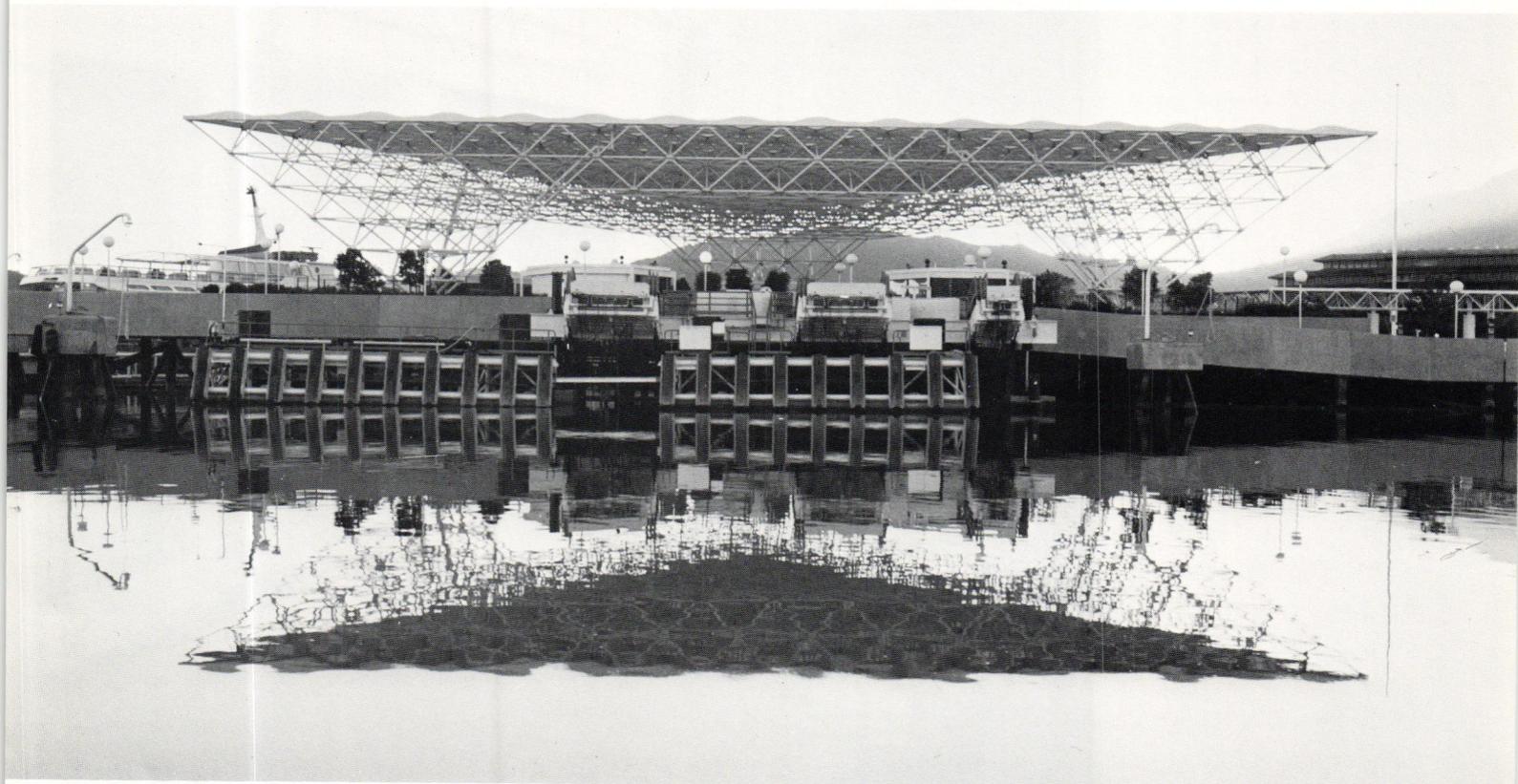
The site is a wooded knoll rising above rolling vineyards carved out of second growth forest in the eastern part of Sonoma County. The building is dug into the knoll on the north side for thermal insulation. (Wine likes to be kept at 55 degrees, the ambient earth temperature.)

Our task was to design a winery that would complement the agricultural nature of the landscape and not be an obtrusive presence in the vineyard. We were instructed to use the timber then being cut to make additional land available for grape plantings.

To this end, we designed a simple, four-square structure topped with a rectangular skylight cupola. The fermentation tanks were placed in the center of the ground floor to utilize the light from above. Barrel storage was located to each side with the

uprights serving as columns to support the weight of cased wine storage above.

Outside walls are constructed of heavy timber framing and the roof is made of large scissor trusses. On the north side, there is a trellised porch which serves as a crushing bay during harvest. The trellis is covered with climbing white roses, adding a special air of elegance to what is a deceptively simple industrial structure. Materials are indigenous fir and redwood, untreated and unfinished.



Larkspur Ferry Terminal, Larkspur Braccia/deBrer/Heglund

Bill Wasson

The project site is a 25-acre waterfront parcel, centrally located at the hub of all present and future major transportation arteries serving Marin County. The terminal structure is a triangular steel space frame supported at only three points. This was determined by the poor soil conditions and the need for a large roof area with a restricted number of supports.

This facility for the Golden Gate Bridge, Highway and Transportation District is the main Marin County terminal for

the nearly 2,000 commuters a day who ferry between Larkspur and San Francisco. Facilities include a terminal shelter with enclosed ticketing, administration and service kiosks; a service building for boat maintenance; boarding floats; a bus shelter and parking for 1,200 cars.

The design concept and selection of materials is in keeping with the high technology involved throughout this new transportation system—the high speed jet powered ferries, the tandem feeder buses and the

possible use of hydrofoils.

The entire 16,000 square foot space is roofed by translucent skylights, but open on all sides. Landscaping, trees and diverse seating arrangements provide an indoor/outdoor garden atmosphere throughout. Perimeter beams combined with variations in floor levels beneath the shelter are designed for proper pedestrian traffic control and separation of incoming and outgoing commuters.

Reflecting on the success of the design is the criticism that

the terminal does not offer enough protection on rainy and windy days. The solution is the result of the original criteria set forth by the owner, which called for only an overhead cover. Although glass side walls supported by vertical space frame columns were suggested by the architects, this proposal was rejected and postponed by budget cutbacks, as was the possibility of building a mezzanine restaurant which would have provided the protection desired.



Henry Bowles

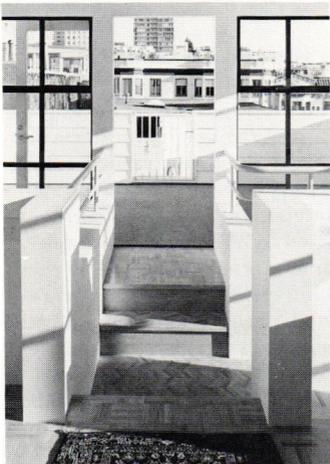
**Glover Street Condominiums, San Francisco** Daniel Solomon, FAIA and Associates

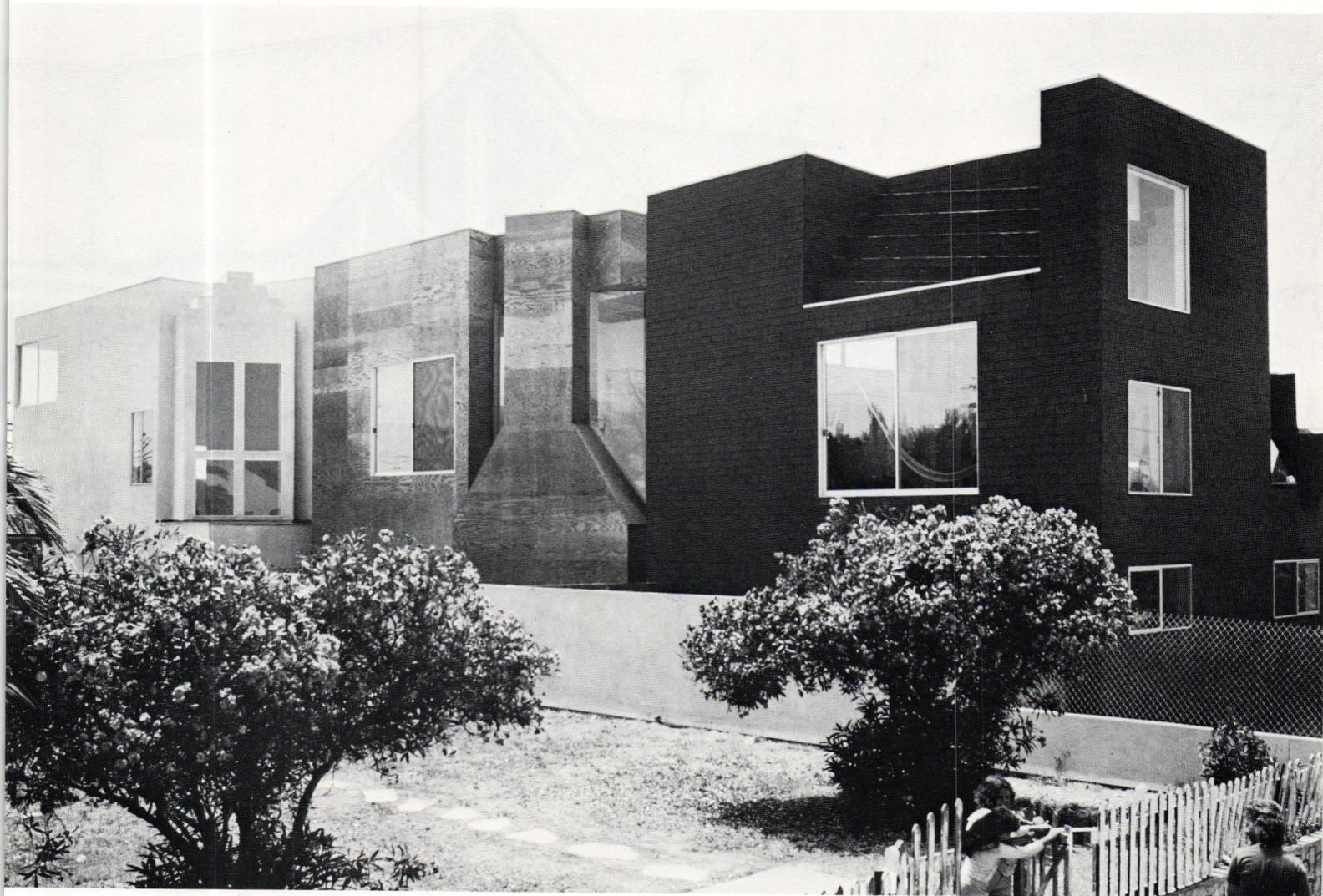
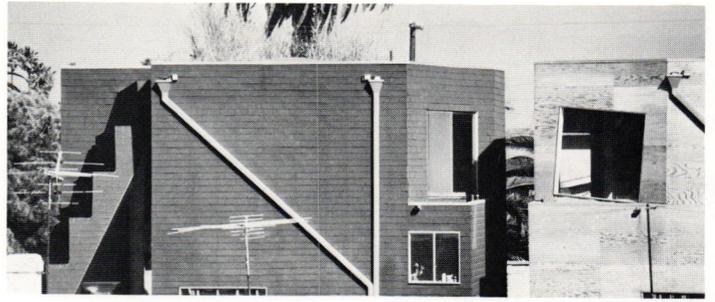
The building consists of two units on a 22 foot by 60 foot blind-wall lot. The permitted building envelope is 45 feet deep, 22 feet wide, with a 40 foot height limit for the first 35 feet of the building, and a 30 foot limit for the rear 10 feet of the building.

Within the very small shell, the units are configured so that each has a view, ample sunlight, private open space, and some double-height interior volume, with the middle floor split between them.

The intent is to reconcile two conflicting themes. Urbanistically, it is a typical San Francisco row house with facade, massing and site coverage repeating the original pattern of the city. Within, the spaces are entirely different: with interlocked section,

double volumes and skylighting, they're based on a Corbusian spatial model and the Corbusian ideals of compactness, efficiency, austerity and health.





**Three Artists' Studios, Venice** Frank O. Gehry and Associates, Inc.

Tim Street-Porter

Three inexpensive units with off-street parking for two cars per unit are being sold as condominiums/artists' studios. The California Coastal Commission constraints are severe; site factors influencing the design include a 28 foot height limit and a narrow, 40 foot wide lot. The surrounding neighborhood

is generally run-down and security for the occupants is a prime consideration.

Three detached, two-level "boxes" are lined up, front to back, within the long, narrow site and enclosed by a high security fence. The rear unit is over the garages. Two of the units have direct access from the garages; the third enters from a walled access walkway.

To keep costs at a minimum, interior spaces are unfinished shells. Owners will finish and subdivide the interiors accord-

ing to their individual requirements. The second levels have large skylights and are double height to allow for future mezzanine space. High windows are located to relate to these possible future spaces.

The "boxes" are decorated with overscaled parts of buildings: stairways, a chimney-like shape, and a huge bay window. Construction is conventional wood frame on concrete footings. Interiors contain only a minimum bathroom, stub outs for kitchen equipment, wall

heaters and electrical outlets. Walls are left unpainted.

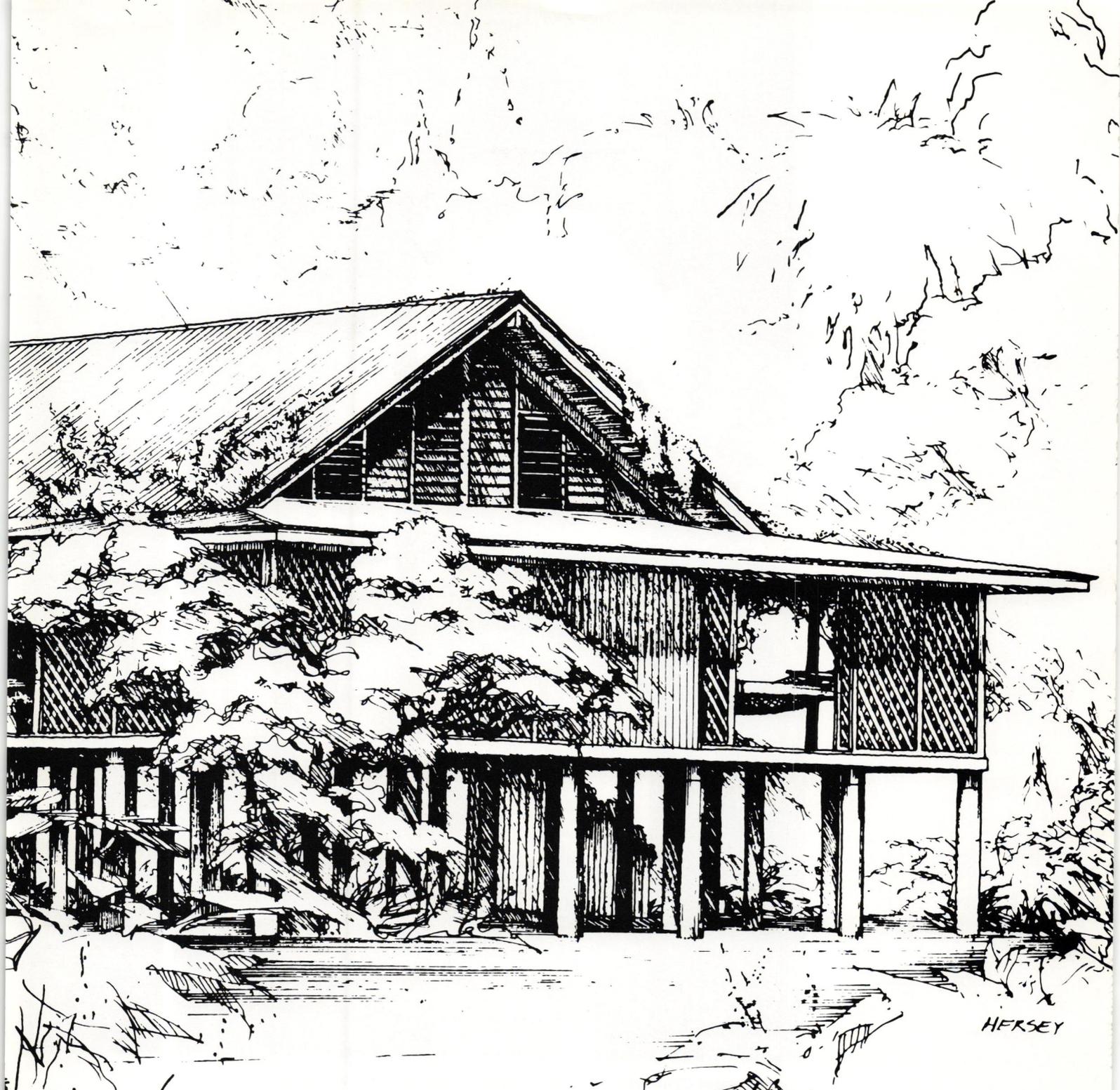
Exterior materials, different for each of the "boxes," relate to the character of the existing neighborhood: asphalt shingles, unpainted plywood and stucco. The stucco colors—pale green, blue, yellow and even pink—pick up the shades on adjacent buildings. The intent was to fit into, rather than to upstage, the surroundings.



Davidow Residence, Kauai, Hawaii MLTW/Turnbull Associates

This residence is located 200 feet from the beach on the northern shore of the Hawaiian Island of Kauai. The climate is tropical and extremely wet. These conditions pointed toward an open "porch-like" house. Wood lattice panels, some of which slide open to admit views, form an outer skin at the periphery of the lower porch roof. A series of sliding doors around the periphery of the "inner house" allow its living spaces to be enclosed from inclement weather or for privacy.

The owners desired a house to fit their outdoor oriented and casual lifestyle. The house is an enormous gabled veranda with a roof sheathed in translucent fiberglass. Within this light-filled enclosure, the living spaces of the "inner house" are arranged symmetrically about the north/



south axis of the veranda. This central veranda is the core of the house into which all living activities flow.

Because this region of Kauai is subject to Tsunami or tidal wave action, structures must be elevated above ground. Thus, the house is an airy pavilion supported by wooden poles, floating up amidst tropical foliage, open to cooling sea breezes and ocean and mountain

views. Access to it from ground level is provided by a free standing stair/planter at the north end of the veranda. The stair receives a swing-down wooden drawbridge which provides security when the owners are away.



Barbeau Engh

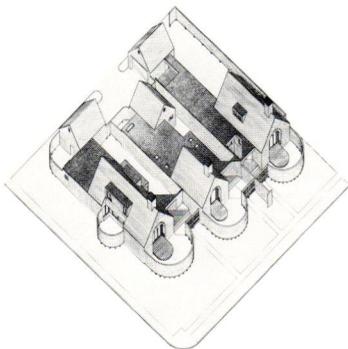
**Spring Street Court Houses, Santa Rosa** Roland/Miller/Associates

Located in an older residential district, this half-acre infill lot at the intersection of two busy streets posed serious acoustical and privacy problems. Several large redwood trees and an ancient oak were recognized site amenities.

Three closely integrated townhouses were called for to meet small family needs. It was desirable to combine various floor plans and special features to appeal to prospective buyers of all these speculative houses.

All rooms were to look out onto a series of courts. These were formed by the walls of adjacent houses and shingled screens, providing privacy and soundproofing. The steep gable

roofs were intended to reflect existing neighboring house forms and to provide for solar panel installations. A rear alley leading to a parking court was designed to serve all three units.





**Kalfus Studio, Los Angeles** Steven D. Ehrlich, AIA, Architect

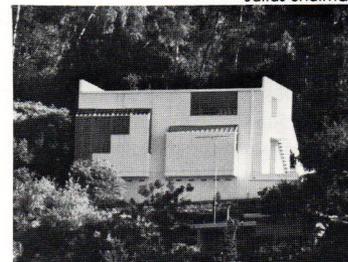
Julius Shulman

Set on a narrow pad in a hillside area, the studio relates to an existing house on the same lot by Richard Neutra (1957). Views are toward the north and east.

Abundant, even north light and large wall surfaces are program requirements for this painting and photography studio. The guest house suite has a private entrance. Since the property is in a mud slide area, 30 foot caissons were required.

Pushing the north walls further north and bringing light in from above provides both even light

and wall space. The canyon views to the east are glazed and can be closed with a sliding "work wall." The studio's verticality counterpoints the horizontal Neutra house.





Jim Mazzuchi

**Las Victorianas, Sacramento** Dreyfuss & Blackford Architectural Group

This half-block inner city site provides 40 public housing units for the elderly. Meeting community concerns about the impact of public housing and staying within a conventional construction budget were prime program considerations. The project was designed to blend with neighboring "Workman Victorian" cottages, but wood-

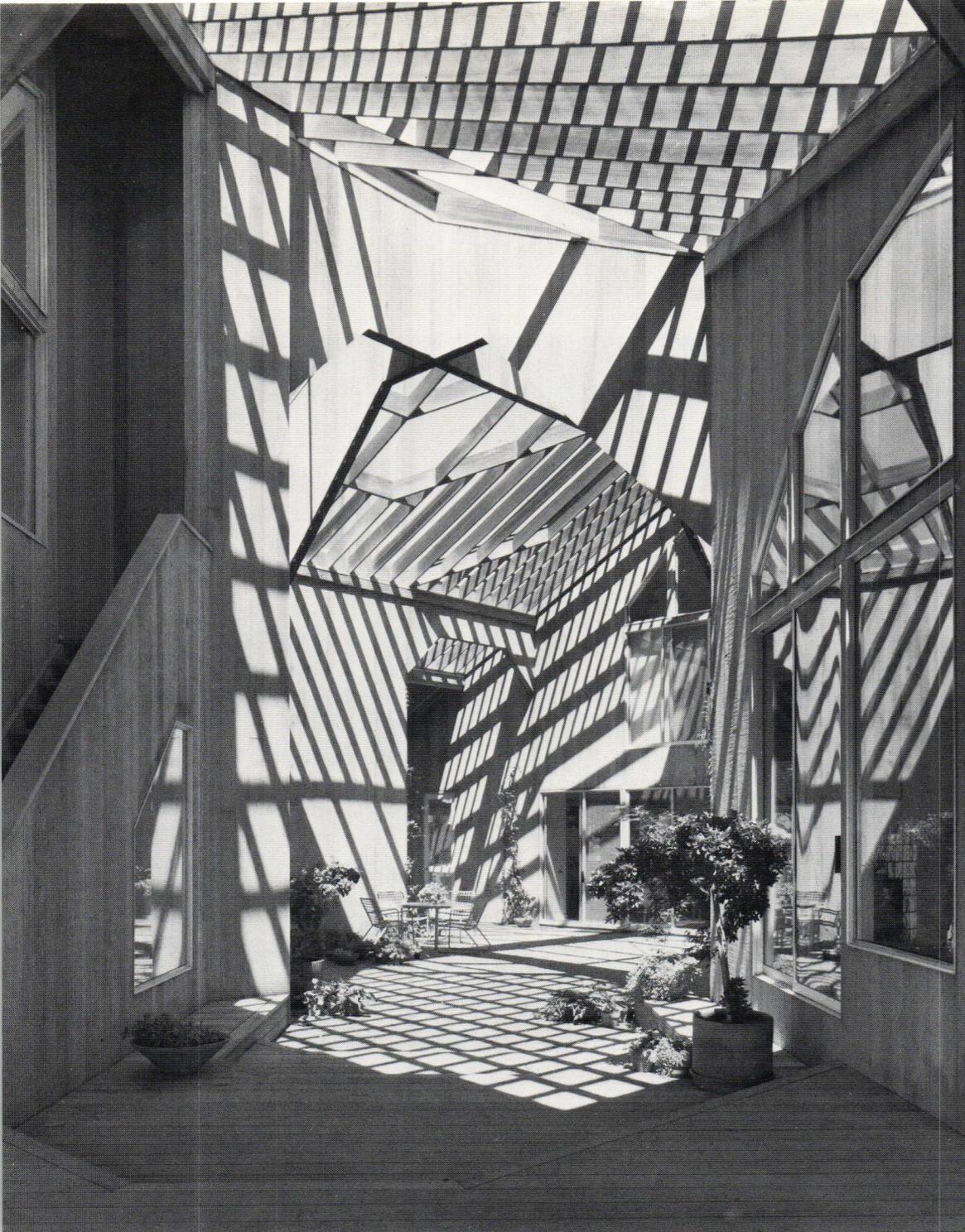
work details were simplified to acknowledge 1980's economics.

Surrounding traffic dictated sheltered outdoor areas. Towering elms and an unique neighborhood scale influenced the site layout and building design.

Each apartment is designed for a single elderly tenant or a couple, and includes living and kitchen areas, one bedroom, and one bath. The complex also provides a small recreation room

with kitchenette adjacent to a communal laundry and service facility.

Coupled with the adjacent new public park, the project was designed to provide a pattern for private individual redevelopment in the neighborhood.



Rob Super

**Allewelt Residence, Modesto** MLTW/Turnbull Associates

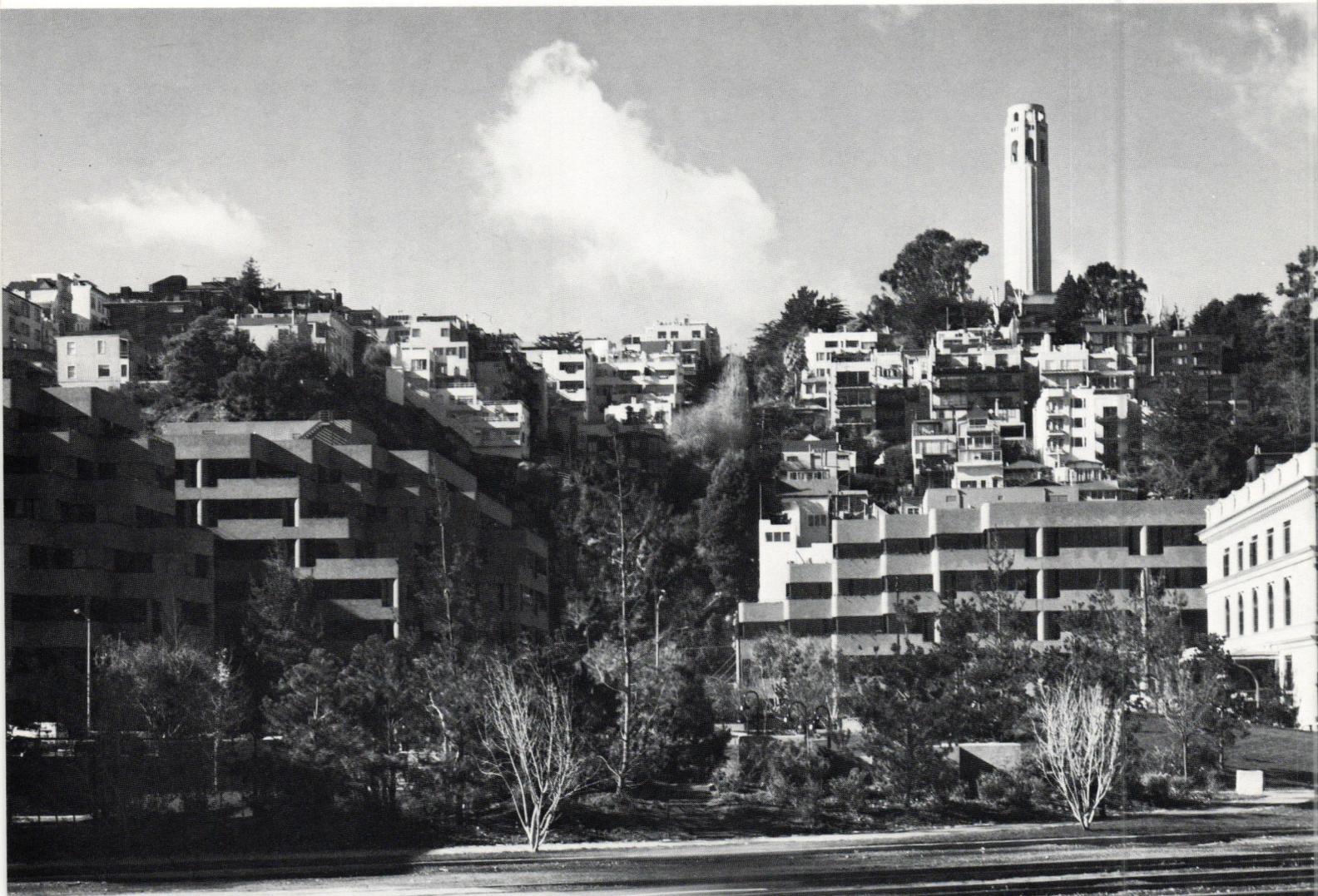
The site is an old hay field in California's hot Central Valley. One edge of the property is a recent subdivision and vineyard, the other, a public road and tree-lined bank above the flood plain of the Stanislaus River. The solution we used is an encompassing big barn-like gable roof which extends beyond the sides of the building as a lipped porch providing additional shade.

The program was to provide a comfortable residence for a family with three children, two of whom are away at school. We separated the structure into two distinct dwellings unified by one roof. To the north is the "adult world" including kitchen, dining and living space; to the south are the children's bedrooms and playroom.

Due to the hot climate, the center of the house is opened up to the sky but is screened from the sun by a layer of rafters

and 1 x 4 stripping. The space is open to the southeast and northwest to catch and funnel errant summer breezes. This inside/outside gazebo makes a cool exterior summer living room and divides off the separate wings of the house.





Peter Aaron/ESIO

**Levi's Plaza, San Francisco** Hellmuth, Obata & Kassabaum, Inc.



The scale of the existing neighborhood is low-rise. The texture is established by massive load-bearing brick warehouses and renovated structures which re-

flect the rich early history of San Francisco. Adjacent to the site, Telegraph Hill steps down to the Bay. Zoning height limits and a respect for the view corridors of hill occupants influenced the design.

Large open floors and integrated retail space were required by the major tenant, Levi Strauss. The challenge was to create an informal, yet recognizable corporate image.

The design for this corporate headquarters maximizes views of tenants in all directions, respects existing historic buildings and unifies the project, which is spread over four blocks and bisected by a major street.

A growing number of architecture firms will acquire office automation equipment in 1983, according to The American Institute of Architects' second annual survey of computer use by architecture firms.

While 30 percent of the 580 AIA firms surveyed now use some form of automation (up from 24 percent a year ago), 53 percent anticipate entering the computer marketplace or increasing their hardware/software holdings in the next year.

Major increases in expenditures for office automation over the past year include purchases for word processing (by 53 percent of the surveyed firms), specification software (40 percent), job cost accounting (36 percent), and financial management (39 percent). Other computer

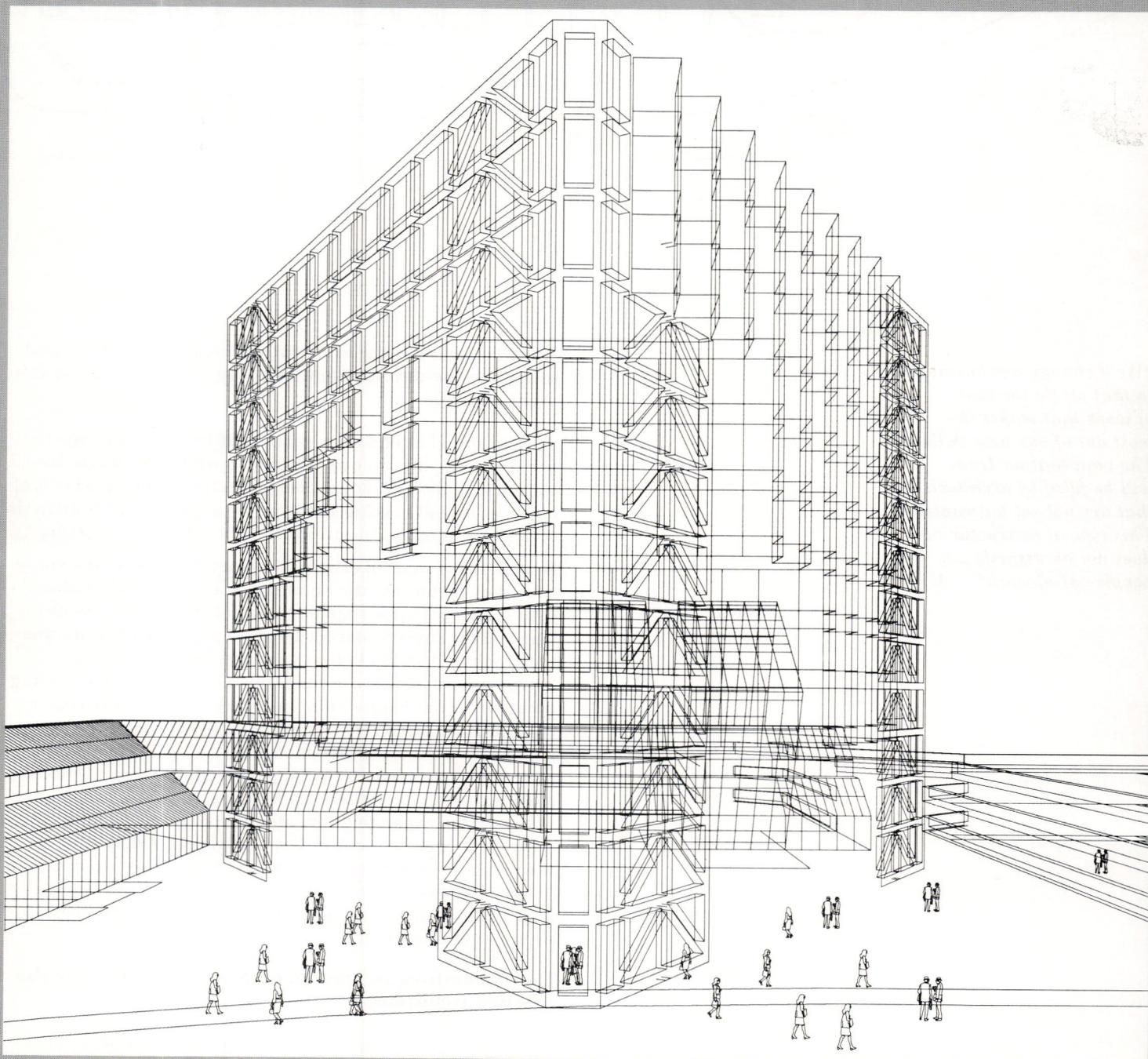
capabilities used by architects are project management, energy audit/consumption software, structural and mechanical design software scheduling, computer graphics, life-cycle costing and library storage. Forty-eight percent of the surveyed firms are budgeting up to \$15,000 for automation expenses in 1983.

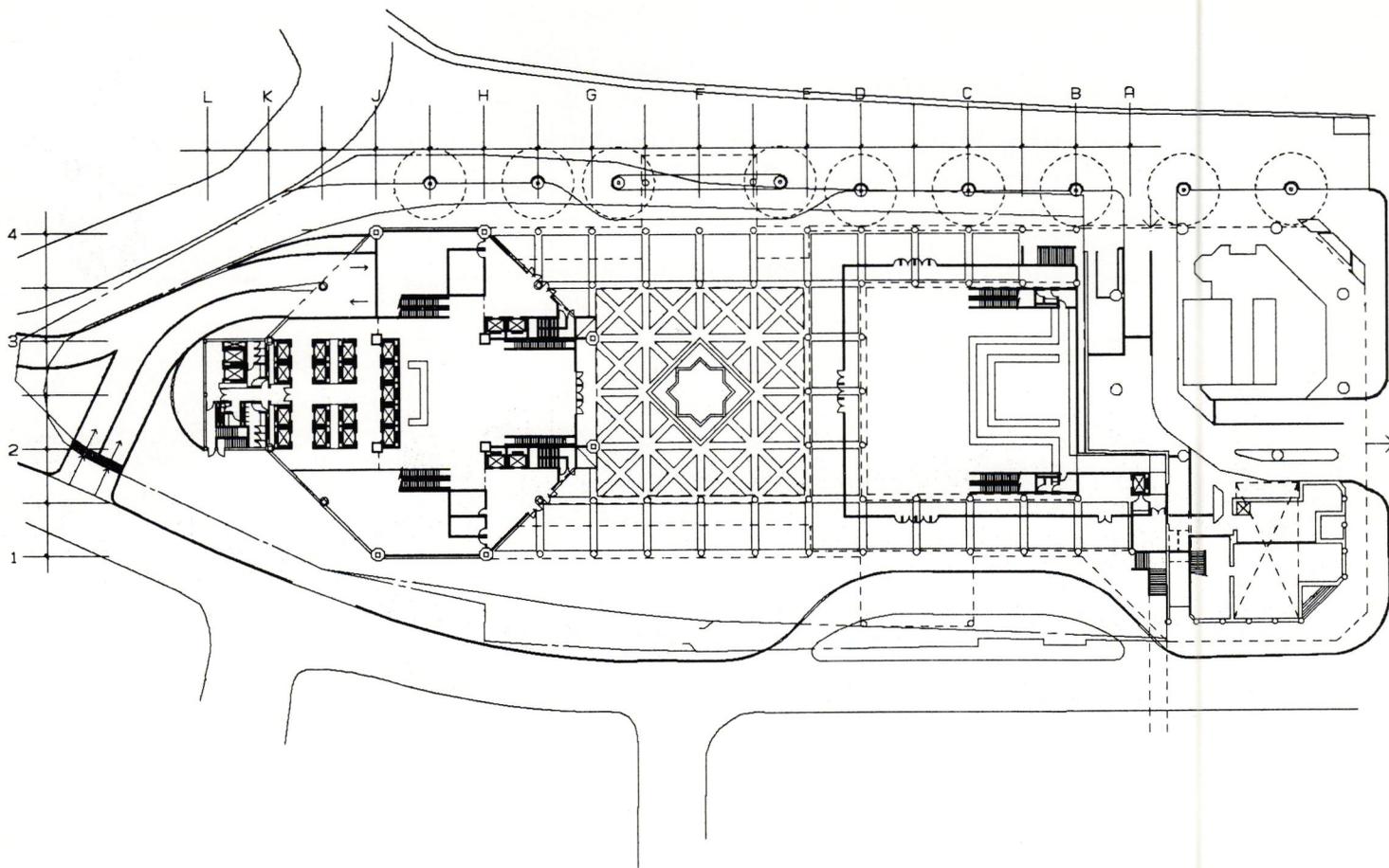
In California, the architecture and engineering firm of Albert C. Martin & Associates is in the forefront of developing and adapting computer applications to architecture. Architecture California spoke with Albert C. Martin, FAIA and David C. Martin, AIA to discover how computers are changing the practice of architecture.

# Interview:

Albert C. Martin, FAIA

David C. Martin, AIA





*"We'll change our business so that we do the type of work that makes the most out of our new skills. The void that we leave will be filled by architects that are not yet automated. This type of restructuring does not necessarily put people out of work." — Al*

**What convinced you to invest your company's time and money in the development of computer applications for architecture?**

**Al:** Our initial interest was sparked at least 15 years ago by our search for dynamic analysis for earthquake design. We started with the techniques being investigated in the schools of engineering and developed a series of programs for the analysis of dynamic motions in earthquakes as applied to structures.

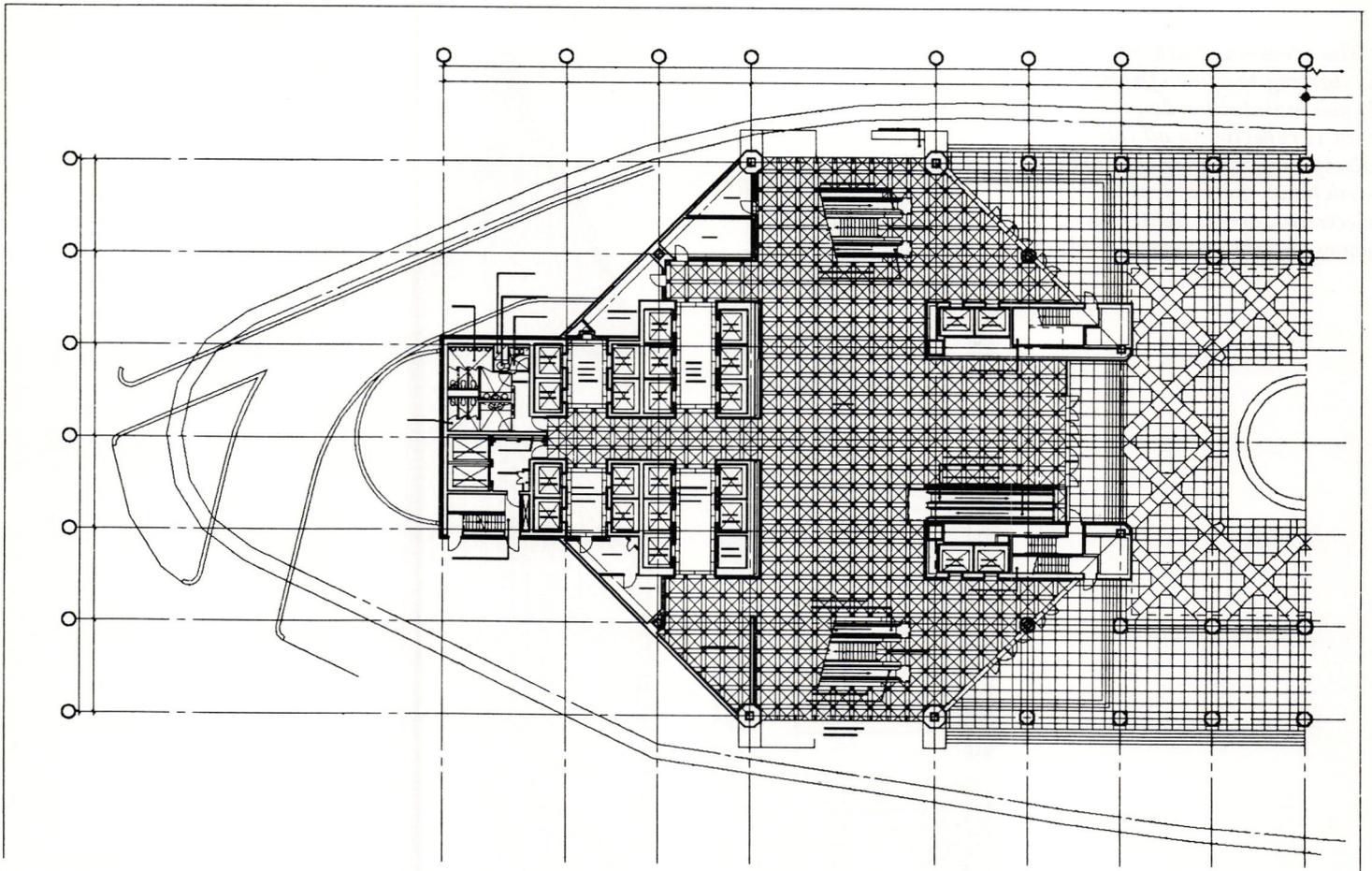
**David:** These were all calculating programs. To use an expression, they "crunched the numbers." They put in data about steel structures in earthquakes and got out the sizes of members and the stresses that occurred, or put in weather information and got back BTU heat gain and loss.

Our most dynamic activities now are drawing and drafting programs. That happened in an interesting way. Perhaps five years ago, we had a very simple interiors program to do space planning—to locate tables and chairs and figures on a floor plan. It became obvious that, if you can draw a chair, you can draw a column or a stair for a building.

We started expanding the interiors program, refining the software to make it work in a very real production sense. It was a highly experimental evolution, because we never knew at the beginning what the end would quite be. Now, as it goes from the experimental stage into production of buildings, we're beginning to get an inkling of the potential.

**How do drafting and design programs affect the way you practice architecture?**

**Al:** In the drafting end, we are putting 40 percent of our work



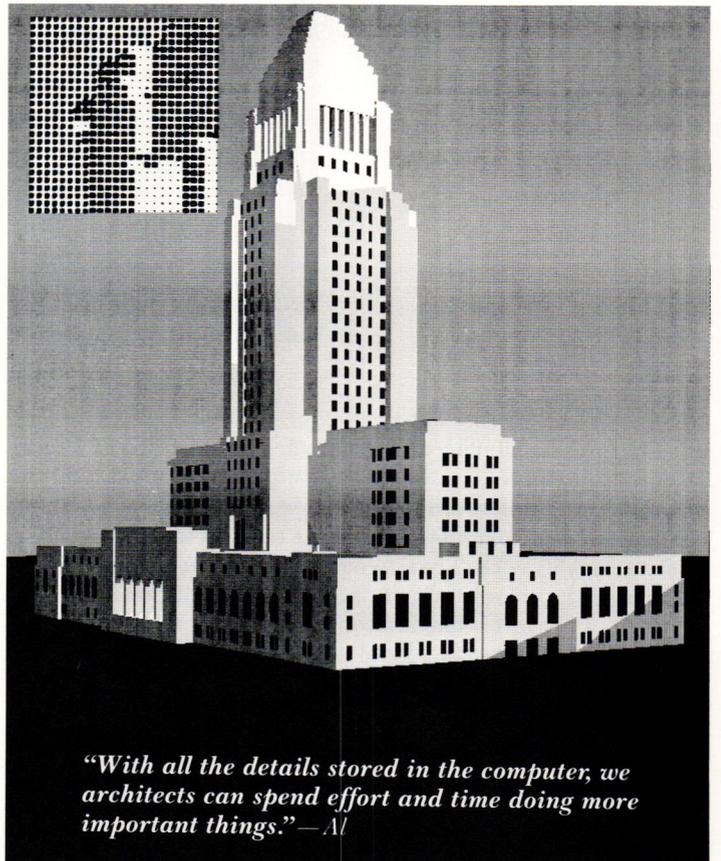
onto the computer. That's actual plans and details. They are, of course, beautifully drawn, because the computer draws them. We do not have 100 percent of our work in the computer, because some jobs aren't adaptable. Jobs that have no repetition, for example, just don't make sense on the computer.

We use overlays of different systems which automatically form composites, with one system overlaid on the other to detect conflicts.

We also have a library of standard parts, such as stairs, stored in detail in the computer. If we wish to put them on paper, we just push a button. The arrangement of the elevator shafts, the stairs, telephone cabinets—all the things generally found in the mechanical core of a building—are in the computer as a system. We can recall the parts right back out, and adopt them as a system.

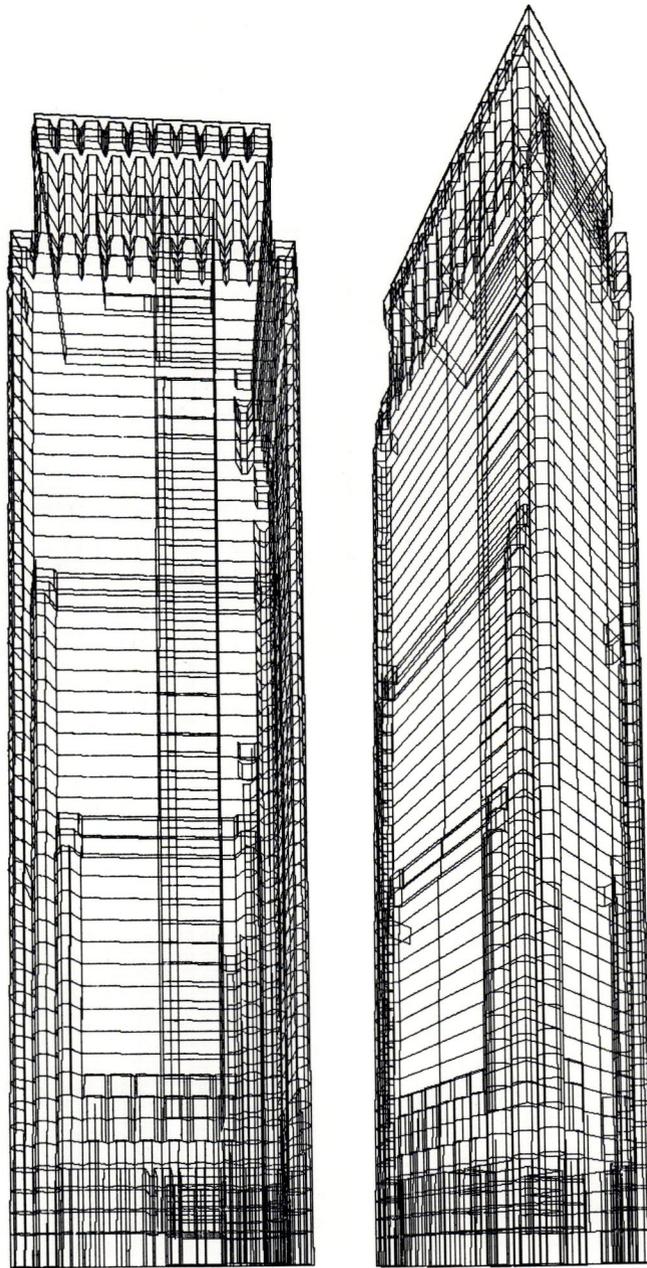
Building components become systems arrangements. The whole thing becomes a vertical transportation or a vertical utilization system. We think that's going to reflect into architecture a great deal.

**David:** To give an example, we give a client a brochure which contains diagrams of building parts. Does the client want round corners, or square corners, or angled corners? What kind of walls does he want—glass or metal, overhangs? The client participates in those decisions. We have developed a program so all the building parts fit together to make a very decent building. Once the selection of the elements is made, the process of design and production goes very rapidly. We have the potential to somewhat automate and intelligently make decisions, to create a building almost as a product rather than as an architectural service.



*"With all the details stored in the computer, we architects can spend effort and time doing more important things." — Al*

*"The creation of order is starting to show effects. If you maintain order, that is reflected in all the disciplines, whether they are structural, mechanical or electrical, or the lights, the floors and the patterns."—Al*



**Al:** That trend will place the architect in the position of taking the initiative more than he does now, and recommending to the client that this combination of elements—this system—is optimum. All of a sudden, the client realizes that he's got a package in this core. That's what happened in the automobile industry. A lot of automobiles had the same engine in them, and certain features, like air-conditioning elements, would be hung onto the frame. In a lot of ways that is starting to happen with architecture because of the computer's systematized approach. With all the details stored in the computer, we architects can spend effort and time doing more important things.

#### **Cloning architecture?**

**Al:** There could be a lot of look-alikes, but I don't think that will happen for a minute . . .

**David:** . . . because of the human spirit—clients want something to be a reflection of themselves.

**Al:** Also, there's not going to be that much repetition of buildings of a certain volume. The variables that come from external influences like the market, the topography and the context will not allow for standardization to the extent that you visualize.

We're shooting for the savings of time these systems allow. If we're marketing an office building, and we've got an investor or a developer has an investor, we can put them into the ground in sixty days instead of a year. The developer can see ten months of savings on the financing, and maybe he won't lose his client.

**David:** If we are successful with this, then we will look at the housing industry. Al and I have a particular interest in

medium-income housing. We see it as a tremendous need in the whole country. If you can save that kind of time in a housing project, the difference in the cost would be measurable. Financing costs are a major part of the economy of building houses, or office space or anything else. So the world needs the kind of speed the computer allows.

**This program should give you a competitive edge in attracting clients. What happens to the small offices and sole practitioners—how do they compete?**

**David:** In all industries, the costs of software and the hardware is dropping and, in a period of two or three years, more and more architects will have access to the programs, so medium and small offices will be able to take advantage of these techniques.

**Al:** The business of architecture is still in the handcraft stage. Until recently, we haven't thought of using capital tools in our trade. By contrast, the construction industry was without capital tools until this century.

In our industry, there will be a gradual shift to the use of automated methods, as electronic equipment becomes more affordable. I'm sure the smaller practitioner will be using a series of programs, and owning his own computer. A few small practitioners are doing it now. Since all of the talent in ten years will be trained in computers—the younger people—architecture in the future is going to be done in a different manner.

We see a changing format of operations and techniques different from the classic schematic, preliminary work drawing-construction documents—that type of breakdown. The computer is changing the nature of the practice.

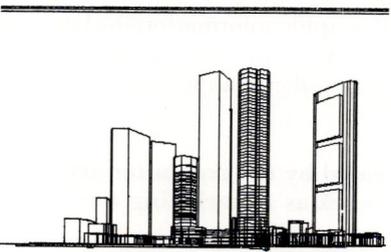
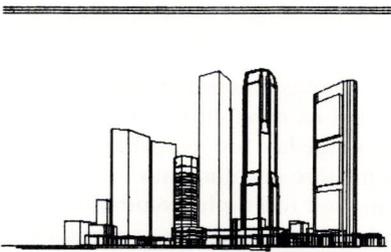
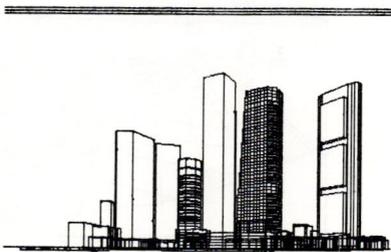
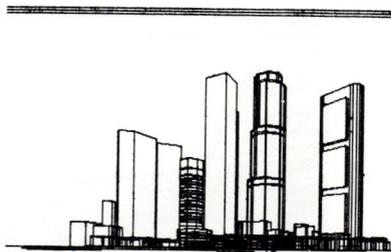
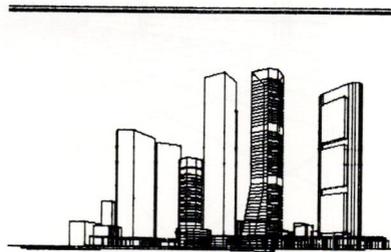
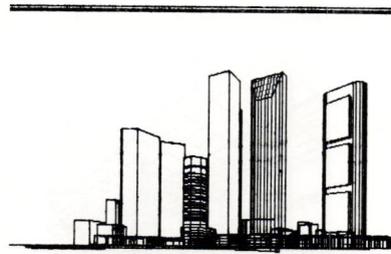
Instead of approving the schematics, there probably will be a concept approval upfront, and then a schematic preliminary phase. Once a concept is adopted, the technician—the designer and the engineer—can put the whole system down in a final way, just as fast as he can in a preliminary way. Because he is using materials that he has designed before, he will retrieve them, adapt them, and the drawing will be final, including details, if he wishes to push another button.

**David:** At the front end of a job, coming up with design possibilities for the client, we used to work in rough sketches and models. Now we still do the sketches and models, but we're sketching on the machine. When we finally say, "Yes, that's it," the drawings are already done.

This has a couple of effects. It allows you to explore more alternatives in the same period of time. And you can better visualize the design by looking at and walking through it in a pictorial sense.

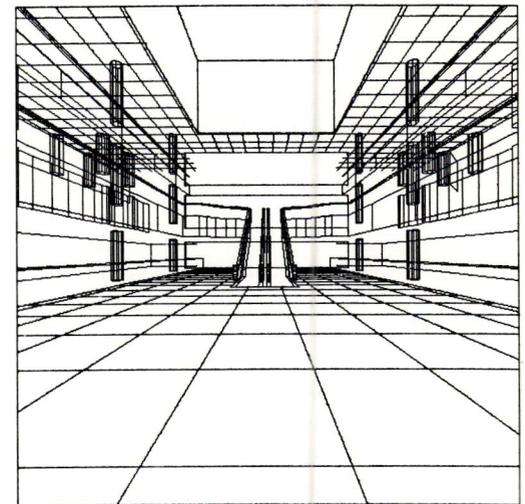
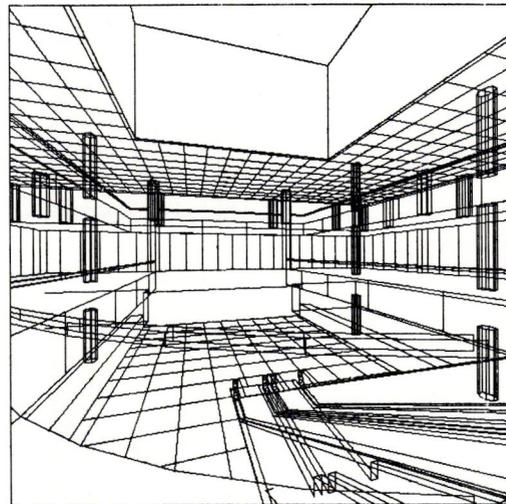
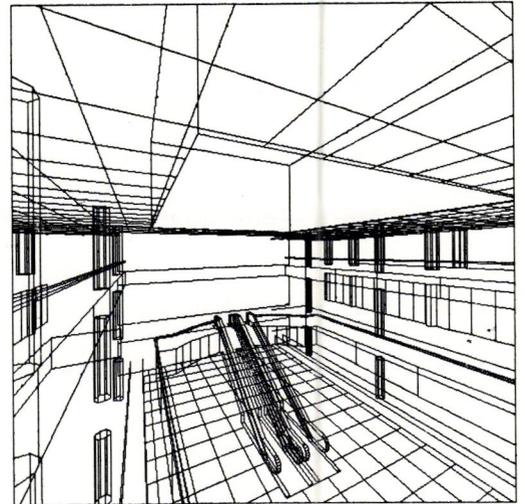
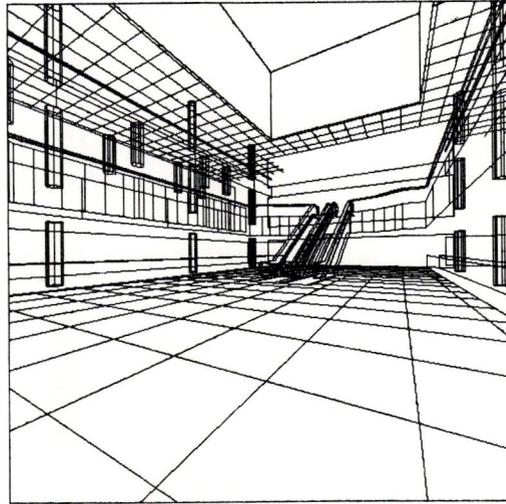
Using the computer increases the period of time spent in the design process. There's not one sign that says buildings are going to get sterile and boxed up. In fact, the signs are that buildings are going to become more interesting, because we are going to know more about the options.

In our practice, there are two dramatic ways we use this new tool. One is to develop two-dimensional working drawings—plans, sections and elevations. This is where our most significant gains have been. The other is in the process of visualizing architecture—the three-dimensional viewing of the building in context, or three-dimensional studies of parts of the building.



*"The computer offers the architect and the client an advantage of being able to think out and understand more how a building fits into its environment, and what the options are."—David*

*“We’re coming out with a systems design office building, which will be somewhat of a standard size. It will have the capability of being larger or smaller. Alternate parts will be in the data base. We’ll select the parts, then assemble the whole electronically.” — Al*



**Al:** Architects deal with a tremendous amount of information. The computer has demonstrated its capability to store and retrieve information, but only in the last few years have people successfully used computers to store graphic data.

Architects deal with information in graphic symbolism. Drawings are organized symbolic descriptions of real objects. We use the computer to aid us in the organization and dissemination of design information. The concept is actually quite simple. Once we have stored graphic information in the computer, we can retrieve, modify, copy, and transmit that information anywhere there is another computer or device that can read the data.

**Architectural graphics created by the computer are spectacular. How do they work as a marketing tool?**

**Al:** They’re fantastic.

We’re getting pretty adept at using computer graphics for marketing. A client came into the Orange County office and, while we were talking, an architect was listening over a

partition and putting ideas that we discussed into the computer. Later when the client was about to leave, we handed him a drawing showing six siting possibilities. The man just couldn’t believe we could do that. Well, that’s a gimmick. But it is a marketing tool.

**David:** People realize that the computer is only a tool—a new kind of pencil. They measure us by our technology, but also by our past record.

**How does that tool enhance an architect’s design ability?**

**Al:** For one thing, the computer gives a new perspective. Let’s say you’re walking through a courtyard in your mind. You may think you know what it looks like. But with the computer, you can quickly create a drawing of the courtyard, because you have the plans and elevations stored. You just call for a perspective from a certain point, and the courtyard will unfold. You can see the courtyard the way it really is, not as the subliminal exaggeration you may wish to produce.

Also, a system is a degree of order. Systems are orderly because most of the time they're repeated. That happens all the time in architecture. Sometimes the greatest buildings are like Ravel's *Bolero*—they never stop.

We find that our drawings are better coordinated because underneath it all there is an established order. We try to do that longhand too, but a human being working over repetitive things gets tired—the machine doesn't. The machine will repeat it forever. So you can maintain symmetry.

### **How do your architects like designing with the computer?**

**Al:** The most difficult part is training. Many talented, experienced architects don't feel right because they don't have a pencil in their hands.

Here we probably have 40 people trained on the computer, and we have spent a lot of money training them. And almost forcing that training, because we see the future of the practice going that way.

### **Questions are being raised about the adverse health effects of video display terminals. Have your personnel using the computer experienced any eyestrain, headaches or other reactions?**

**Al:** I haven't heard of anybody here being burdened. There have been numerous studies, all of which have shown that the radiation exposure of a year in front of the computer terminal is equivalent to standing outside for a few minutes on a sunny day.

**David:** The main thing is to turn the lights out and get rid of the reflection on the screen.

There are some psychological things we haven't figured out yet. For somebody to sit in a dark room without any lights on all day is a problem. For somebody to be differentiated into a special room is a problem.

There are other, subtle things, like the machine going slowly. People get frustrated.

**Al:** Or when they can't get into the computer. It drives them crazy.

**David:** When the computer breaks down—you can imagine when we've got 17 guys crashing to get a project on the plane to Singapore and none of it's done by hand. When the machine goes down, they might as well go home or to the beach. We run the computer department a little better than that, but it illustrates a problem.

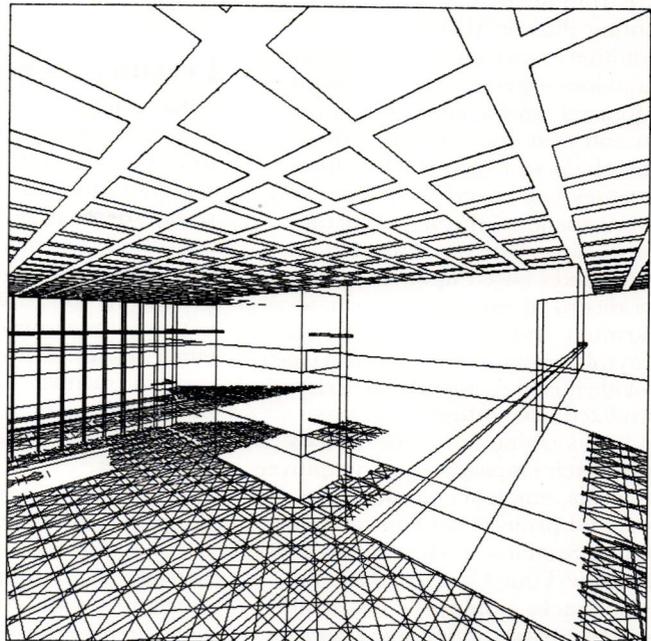
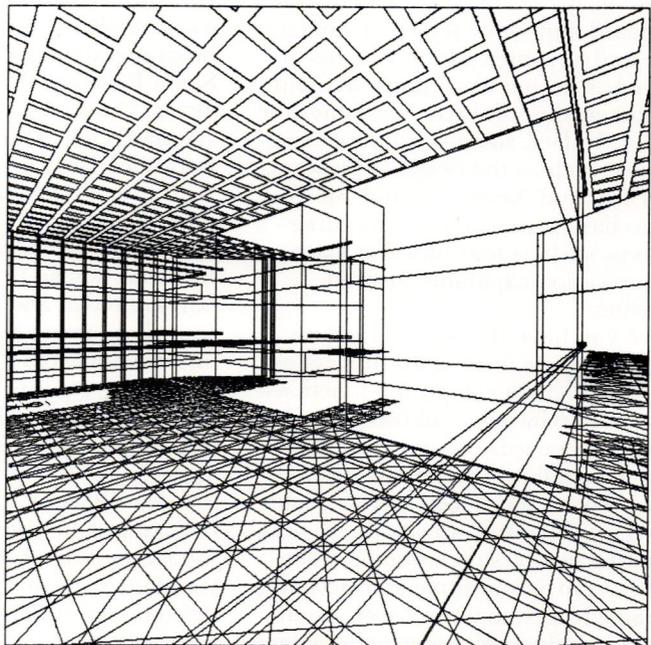
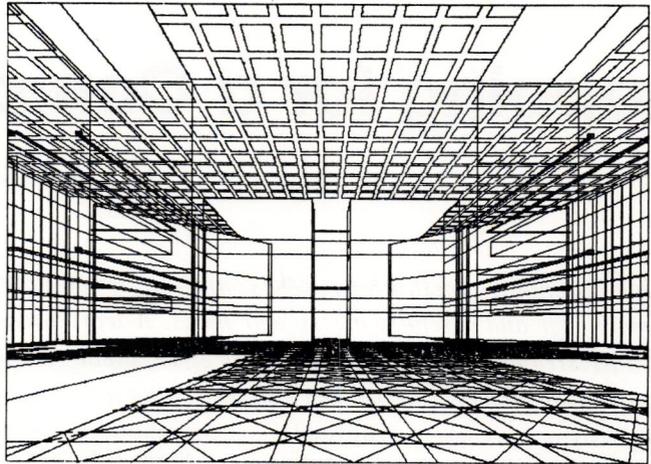
### **Does the computer eliminate jobs?**

**Al:** It's not a question of eliminating people. It's a question of being able to do the work of people that we can't get anyway. In other words, we have additional capacity because we couldn't have gotten the mechanical engineers and draftspeople anyway. I don't know that there's a lot of good, capable draftspeople walking the streets.

**David:** There's surely less and less coming out of the schools. The young entry person can learn about buildings and components of buildings quicker by using a computer. My guess is that this new generation might become more experienced more quickly.

**"We're beginning to get an inkling of the potential."**

—David



# Shopping for a Computer

*Choosing a computer doesn't have to be confusing, if you first arm yourself with a little knowledge and carefully assess your needs. A word processing/computing system will streamline the work flow in your office, saving you valuable time, which in turn saves you money. But you don't have to spend a lot of dollars to save a few.*

Whether you purchase a dedicated word processing system or a computing system, you get the same basic hardware: a keyboard and video screen, a storage device and a printer. Many systems are designed as both a word processor and a computer; the software determines the function. In fact, some word processing systems—such as the portable Osborne, A. B. Dick, and Xerox—include in the purchase price certain computing functions, such as four function math, communication capability and list processing.

Once you have the basic hardware, you can upgrade most word processing systems to include computing functions, simply by purchasing a software package. The *computing* needs of a modern architecture firm fall into three categories: general accounting, specialized accounting and miscellaneous functions. General accounting involves maintaining a general ledger, an accounts payable/accounts receivable ledger, and a payroll system. You can readily purchase general ledger software from firms such as Peach Tree, Accounting Plus or MBSI.

In addition to providing balance sheets, profit and loss statements, a cash requirements journal, and ageing reports (of current and past due accounts), these programs help you keep track of how much money you spend, and when and where you spend it, through a history of vendor usage. The payroll program calculates taxes based upon exemptions, keeps a record of current and year-to-date earnings and deductions, and can print payroll checks and W2 forms. It also can provide quarterly reports on earnings.

Specialized accounting programs handle bookkeeping functions directly related to each employee's job: employee time analysis, employee productivity analysis, and project cost control. Max Computing Systems in Sacramento offers an Employee Time Card Analysis program that tracks employees' chargeable and nonchargeable hours, and analyzes

actual and proposed project time.

Some software programs provide specialized information architects can use directly on a job. Structural analysis programs are available from Discotech in Santa Rosa and Micromode in Houston, Texas. "Spectext," a disk of specification standards for architects, is available from the Construction Specification Institute in Washington, D.C. Other spec programs that can be used on most microcomputers are "Comspec," available from Bowne Information Systems in San Francisco and "Masterspec II," from Production Systems for Architects and Engineers in Washington, D.C.

You also can purchase a program giving data on passive solar requirements throughout the United States. Called "Micropas," this program is available from the Office of Appropriate Technology in Sacramento (see page 37).

Job forecasting programs, such as Calstar, Supercalc or Logicalc (available through any computer dealer), provide the architect with a spreadsheet analysis of "what ifs."

## Learning to Push the Buttons

Knowing the background and experience of the computer firm you purchase from is important. You have the right to ask questions, ask for references, and receive demonstrations—even in your own office. The firm from which you buy your computer should help you get the most from your investment by working with you to achieve maximum system efficiency. In computer vernacular, this process is called "support." Support falls into three categories: pre-installation orientation, training and program development.

Because a computer is only as good as the people who operate it, creating a positive attitude among those people is critical. Your employees know that procedures will be different with the computer, but just how different? A

pre-installation orientation is a vital first step in informing your employees of the roles they will play in computerization of the office.

Your salesperson should work with you to determine a conversion implementation schedule—a step-by-step plan for converting your office that covers exactly which functions will be computerized, and which will not. This plan will help everyone understand the conversion time frame and the order in which tasks must be completed along the way to implement the conversion. The orientation also should address employees' doubts or apprehensions about the new procedures, making them feel comfortable with the changes and showing them how they will benefit from the computer.

Some computer firms include orientation in the purchase price. Others may charge you \$45 to \$60 per hour for "orientation consultation." Even if you must pay for this service, it's money well spent. You'll be getting your employees off on the right foot in both their attitude toward the computer and their efficiency in converting the office.

While orientation gives an overview of a system's capabilities, training focuses on teaching the users how to perform the specific computing functions. For best results, training must be a hands-on process with ample time for questions.

Training sessions vary from three hours to three weeks. (Be skeptical of the salesman who brags, "I can have you 80 percent efficient on this equipment in two hours!") Some firms conduct training at your office; others have special schools which your users must attend.

Be sure to find out how many training hours are included in the purchase price—some computer firms will bill you for training after an unspecified "initial period," whether or not you learn how to use the equipment during that period. Also, ascertain how many people will be trained as a part of your purchase contract.

Not everyone in your office will learn how to operate the computer, so employees selected for manufacturer training should be directly responsible for computer use. These people can always train occasional users who need not know all the details

of operation.

Most computer firms offer a thorough, but general training program, so don't expect users to be computer wizards after only a few weeks. Much of the specific learning comes simply with use. Computer firms generally agree that it takes about six months for a user to become completely acquainted with all the ins and outs of a computer system.

Additional training will be needed to properly use your software programs.

Will the firm selling you the computer assist you in working out the "bugs" of your software? Usually computer firms set a limit on software support hours and then charge a consulting fee for added help.

Program development (or application development), the final support consideration, is what allows you to keep an eye on the future. Since a computer purchase is a major investment, it should be one that serves you for many years. Is the

computer firm willing (and able) to work with you in updating and adding to your system as your needs grow and change?

One way to determine your sales firm's capability is to ask for references and check them. Talk to the businesses that own the computer you are considering and get feedback. The engineering and/or computer science departments of your local college or university often hold public seminars on computer selection and application for small businesses.

**Comparing word processor/computer package prices is difficult because one company's package price may not include the same features as another's. The important consideration when you begin discussing costs is not how much you're paying, but what you are getting—in terms of both tangibles and intangibles. What does the price represent in terms of equipment, support, convenience, efficiency and return on your investment? This Price Comparison Chart summarizes the features of some word processor/computer equipment available in California. Prices may vary from region to region; those listed here were supplied by the companies' Sacramento distributors in November 1982.**

Some nonessential, but important, features to be aware of when viewing word processor/computer demonstrations and considering software options include:

- Automatic pagination/repagination—the unit automatically generates page numbers on multi-page documents, and re-numbers the pages if you make data additions or deletions that change the page sequence.
- Search and replace—the unit can search through an entire document for a particular word, phrase or cost quote, and delete it or replace it with another. For example, if you use a standard document and want to change only the name of the client, the unit would find each of the old names and replace them with the new name.

### Price Comparison Chart

| Brand Name                                     | Package Price | Package Price Includes*  | Options/Price  | Service Contract                             |
|--|---------------|--|--|--|
| Digital Rainbow 100                            | \$4,400       | Keyboard, CPU/video screen unit, dual disk drive, letter quality printer (44 cps)  | Word processing software \$500<br>Dot matrix printer (100 cps) \$850 | On site \$336/yr.<br>Repair Center \$226/yr. |
| Digital Professional 350                       | \$8,450       | Keyboard, CPU/video screen unit, dual disk drive, bit map graphics   | Word processing software \$200<br>Tri-function printer† \$850        | On site \$420/yr.<br>Repair Center \$294/yr. |
| Lexitron 200-2E                                | \$8,500       | Keyboard, CPU/video screen unit, dual disk drive, letter quality printer (55 cps), full word processing software, including mailmerge  |  | \$900/yr.                                    |
| A.B. Dick MagnaWriter                          | \$4,995       | Keyboard, CPU/video screen unit, single disk drive, word processing software, 5-function math, list processing software                | Letter quality printer (20 cps) \$1,995<br>Second disk drive \$1,000 | \$792/yr.                                    |
| Xerox 820                                      | \$5,500       | Keyboard, CPU/video screen unit, dual disk drive, letter quality printer (40 cps), full word processing software                       | Supercalc software \$300<br>Dot matrix printer (200 cps) \$600       | \$1,000/yr.                                  |
| Osborne II Portable Personal Business Computer | \$1,995       | Keyboard, CPU/video screen unit, dual disk drive, word processing software with mailmerge, supercalc software, 2 programming languages | Letter quality printer (40 cps) \$595                                | \$285/yr.                                    |
| Lanier EZ-1                                    | \$8,495       | Keyboard, CPU/video screen unit, dual disk drive, letter quality printer (45 cps)  | Word processing software \$200<br>Dot matrix printer \$900           | 8-12% of purchase price                      |

\* Storage capacity varies from package to package.

† Letter quality at 40 cps, dot matrix at 100 cps, graphics at 50 cps

This feature also is handy to correct misspelled words or adjust cost quotes to shifting economics.

- Block move (transfer)—this feature allows you to rearrange text by blocks (several paragraphs at once). Basically, this function is "electronic cut and paste," without the mess.
- Electronic glossary—you can store a list of your most frequently used (and usually complex or technical) words, then print one in a letter or document by simply typing an abbreviation.

- List-merge (mail-merge)—allows you to merge a stored list of information, such as a list of client names and addresses, with other inputted data, such as a form letter. This feature is indispensable for mass mailing.
- Graphic option—many systems have the capacity to perform graphics, whether it is built into the system hardware or is made available by adding a special graphic module. Graphics capabilities also are available in color.

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## The Brain of a Computer, the Warranty of a Toaster

Most major appliances, such as televisions or microwave ovens, come with a year or more warranty period. The standard warranty period on a microcomputer is more like that of a toaster—90 days. After that, you're on your own, unless, of course, you purchase a service contract. These contracts range in cost (one firm charges 10 percent of the system purchase price—per year!), but the average is about \$1,000 per year.

Since you can't repair your equipment yourself, a service contract is like an insurance policy. But before you purchase one, seriously consider the need for it. The fact is, frequent computer breakdowns are highly unlikely. It may cost you much less simply to pay for a service call when (and if) the system defaults.

Checking the performance reliability statistics of the computer firm, and the actual experiences of other companies who own the same computer system may help you decide that the on-going expense of a service contract is not warranted. If you do decide to purchase a service contract, be certain what it covers. Some important questions to ask include:

- Does the contract cover routine preventative maintenance and service calls?
- Does the contract cover both parts and labor costs?
- Does the contract include software de-bugging calls?
- Are there any circumstances under which you would have to pay an additional repair fee?
- Is there a toll-free "hot line" you can call for problems?
- Does the contract guarantee a certain response time?

Response time is a critical factor, since it indicates the amount of time your system will be down and you won't be able to get anything done. Most firms guarantee a four to eight hour repair response time, and are very conscientious about adhering to that time frame. Check the company's response time with their other clients.

## Boggled by Bits and Bytes

When you begin viewing demonstrations, you probably will be baffled by the range of features different computer systems offer. Don't be misled by "bells and whistles." Most computer systems perform the same basic functions. Having a time readout, a tilting screen or a detachable keyboard is not essential to efficient system operation. On the other hand, a really essential feature to investi-

gate is storage capacity, or just how much data the system can record and retain.

Salespeople discuss this feature in terms of bytes (characters), Kilobytes (1,024 characters), and Megabytes (1,048,576 characters). In layman's terms, figure that 2,000 bytes or characters equals one page of text.

Storage capacity varies, depending on the number of disk drives (usually single or dual drives), and the kind and size of disk. Data is recorded on one side of a "single sided" disk, and on both sides of a "double sided" disk. The amount of data that can be packed onto a disk is referred to as "density." A floppy, 5¼ inch single density, single sided disk stores about 45 pages. An 8 inch, double sided, double density disk stores about 600 pages.

You can determine your storage capacity needs by evaluating the amount of paperwork your office generates each month. One rule of thumb is that if you produce about 200 pages monthly, your storage needs are average, and using a 5¼ inch, single sided floppy disk will suffice. When text production exceeds 200 pages monthly, you should investigate the cost of increasing your storage capacity, or eliminate from consideration systems with a lower storage capacity.

Many systems that come with a relatively low storage capacity can be upgraded by adding a Winchester hard disk unit, which increases not only the storage capacity, but also the retrieval speed and the cost.

You may not have definite plans to purchase a computing system, but it's never too soon to go shopping for one. The more literature you collect, the more demonstrations you see, the more knowledge you will gain. Your shopping process will make the decision a lot easier when the time comes to buy a computer.

*Jeanne F. Campanelli is a professor of journalism at California State University, Sacramento, and a private consultant in written communication for business and industry.*



"PAC-MAN JUST ATE THE FLOOR PLAN"

Dick Ruffler, AIA, Bolles Associates

## Computer Program for Energy Analysis

by John Ferrell

Energy analysis of buildings is becoming increasingly important in the building industry, and this has resulted in computers becoming a tool of the trade. But until recently, the most popular energy analysis programs were available only on the largest computer systems. Although it has been possible for designers to perform residential energy analysis by hand, by calculator, or by microcomputer, these methods have lacked sophistication, flexibility and ease of use.

Now a new microcomputer program called MICROPAS is available. It combines the sophistication of the larger computer systems with the "user-friendliness" that microcomputer users have come to appreciate. Developed by the California Office of Appropriate Technology (OAT), MICROPAS is a versatile energy analysis tool useful both for design purposes and for documentation compliance with the new California Title 24 Residential Energy Standards. The program is capable of modeling a wide variety of residential building designs, including those that incorporate many popular energy-conserving and passive solar features.

MICROPAS is designed for use with Microsoft's BASIC compiled run-time package for microcomputers with CP/M operating systems. The MICROPAS program is based on the California Energy Commission's version of the simulation code, CALPAS 1, which has been used extensively in the California building industry. However, many CALPAS 1 features have been modified to enhance MICROPAS usability, flexibility, and modeling capabilities.

MICROPAS is an hour-by-hour simulation program that features interactive input—to promote speed, accuracy and simplicity in entering building data—and a powerful demonstration routine that shows each feature automatically. The output of the program comes in three forms: design, graphic, and compliance.

More information on the program can be obtained from the Office of Appropriate Technology, 1600 9th Street, Suite 330, Sacramento, CA 95814.

*John Ferrell is the editor/writer for the Office of Appropriate Technology.*



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## Architects, An Endangered Species

by Paul W. Welch, Jr.

Architects are in danger of losing their practice, and unless we collectively and aggressively resist those who seek to dismantle the Practice Act, there will be little left to leave to aspiring architects in the future.

Architects are the only professionals educated, trained, tested, and licensed to engage in design. Yet, as we look around us, we see many examples of buildings not exempt from the Practice Act that were designed by nonarchitects. Often such structures are designed by non-licensed persons who were able to have plans illegally approved through plan check, or who accomplished plan check by purchasing an architect's or engineer's signature.

The problem of nonlicensed practice is compounded by lack of enforcement of the Practice Act by the judicial system. The California Board of Architectural Examiners (CBAE) has little direct control over the situation. It investigates reports of nonlicensed activity and routinely refers such matters to local district attorneys for prosecution. Herein lies the major roadblock.

Local district attorneys, facing a decreasing budget and an increasing crime rate, are reluctant to pursue what often is perceived as a victimless crime. In theory at least, every nonlicensed violation of the Architects Practice Act involves aiding and abetting by a licensed architect or engineer. Often a district attorney will agree to file an unlicensed practice violation if the CBAE files a disciplinary action against the architect who signed the documents. Anyone who has ever worked in the administrative law system knows how difficult it is to define and successfully prosecute an aiding and abetting violation.

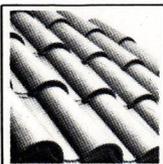
The nonlicensed practice of architecture can be viewed from a more philosophical perspective. There is a national trend towards deregulation and architecture often is viewed as one of the few remaining professions that does not have a paraprofessional licensing classification. "Not everyone wants to do highrise buildings" is a claim often expressed by the American Institute of Building Design (AIBD) as it annually attempts to reopen the classification of Registered Building Designer. As we all know, architecture is

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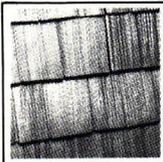
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difficult to explain to a lay person. Architects' inability to succinctly express their important contributions to public health and safety often serves to confuse the problem, and blurs the distinction between architect and building designer.

Another threat to the Architects Practice Act comes from a silent, yet obvious, conspiracy of licensed individuals. Many licensed individuals are exempt from the Practice Act and allowed to engage in the services provided for by their respective licenses. This often is interpreted as a license to do whatever they want to, and the confused building official is caught in the middle. For example, it is not clear what contractors can do under their exemption in the Architects Practice Act.

This problem is not only confined to contractors, however. It extends to engineers as well. The distinction between architecture and engineering is not clear and often is defined as "engineers can do anything an architect can do except call themselves architects" and vice versa. Such confusion is not in either profession's best interest, nor does it contribute to the public's health, safety and welfare.

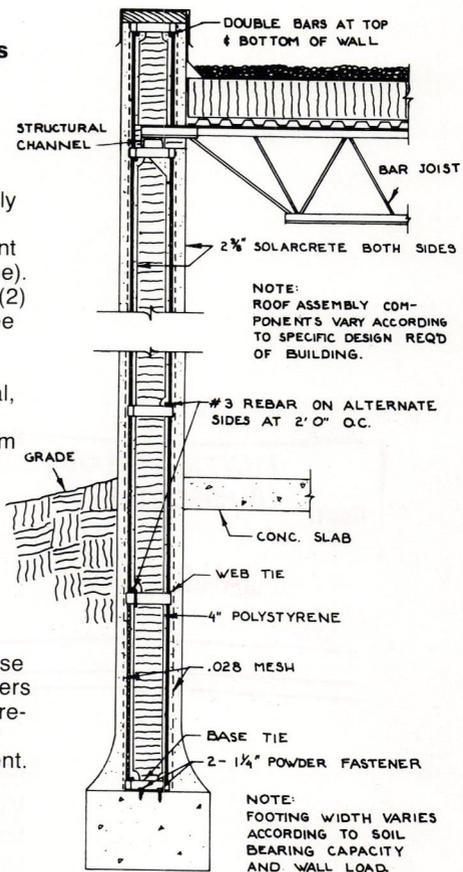
Solutions to nonlicensed practice are complex, but attainable. We must first acknowledge that the present system does not deter the nonlicensed practice of architecture, nor does it adequately protect public health, safety and welfare. Consequently, we need to work with the CBAE in developing creative legislation, regulations, and policies which effectively curb nonlicensed practice. We need to develop a public education and information system that clearly identifies the contributions that architecture makes to society. Such a program should go beyond compliance with building codes and should encompass new technologies, systems and building products. And we need to educate the public and the Legislature that the clients of architectural services also include the users of the environments created by architects.

*Paul W. Welch, Jr. is the Executive Vice President of the California Council, the American Institute of Architects. Opinions expressed in this article do not necessarily reflect the policies of CCAIA.*

### The Solarcrete System features the following advantages:

- Highly energy efficient (offering R-Values of 19-37).
- Low maintenance requirement (reinforced concrete construction).
- Cost competitive with conventionally built structures.
- Unlimited design versatility (inherent with the patented building technique).
- Low insurance requirements (Two (2) hour fire rating and a seismic three (3) rating).
- Applicable in all building markets (residential, commercial, industrial, agricultural, rehabilitation).
- Optional BTU management system (solar assisted with no auxiliary units required).
- Major building code approvals.
- Reduced Noise Pollution through inherent soundproofing.
- Resistance to termites, vermin, moisture, mold and rot.

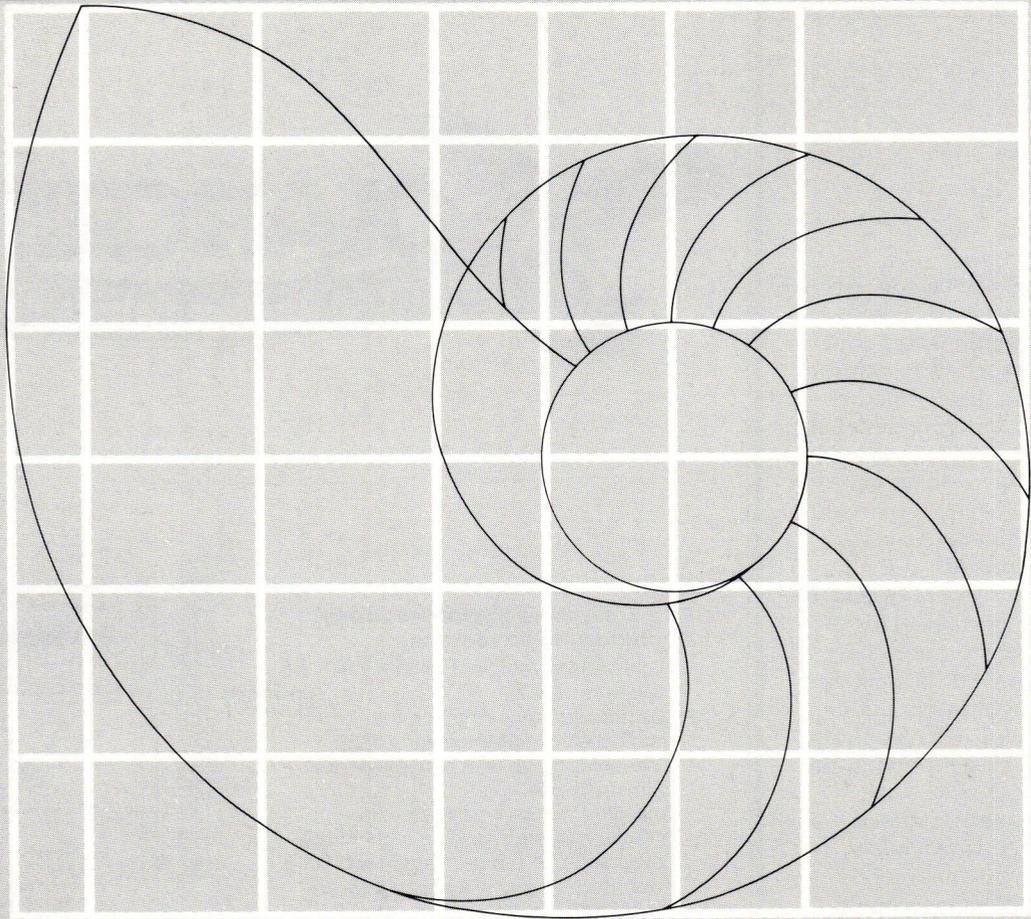
The Solarcrete Building System is extremely flexible and without the use of costly conventional form work offers an on-site building technique or a pre-cast, pre-assembled technique depending on the project requirement. The resultant insulated, reinforced concrete composite section can be used for many engineered applications.



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