


HAWAII ARCHITECT

September 1993

- 
- *Protection from Hurricanes*
 - *Koa Wood Substitutes*
 - *1993 HC/AIA Awards*

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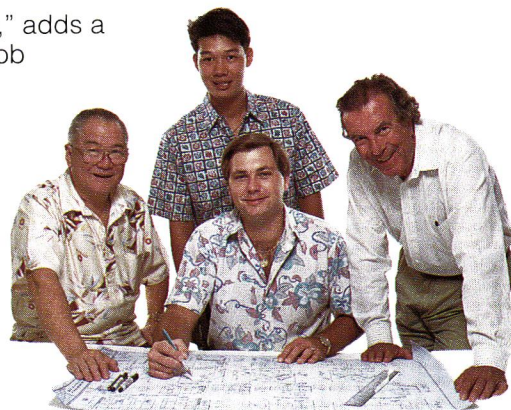
"I'd say they almost made 'yesterday' our move-in date," adds a pleased Ben Fong from City Bank, who monitored the job carefully. "There was quality performance from infrastructure on out."

"We always like working with Allied," notes Paterson, the project architect. "They understand design, respect budgets, stay ahead of problems and get along well with people."



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Tile work at The National Memorial Cemetery Of The Pacific had to withstand heavy traffic, yet be aesthetically in tune with "Punchbowl's" beauty. The non-skid, attractive texture of Summitville's Williamsburg and Concord Flash Walnut brick tiles was ideal for the 22,000 foot walkways. Unglazed mosaic flooring in public areas also is non-skid while a combination of Williamsburg and Pavers enhances seating locations. Another historic moment in creative tile design.

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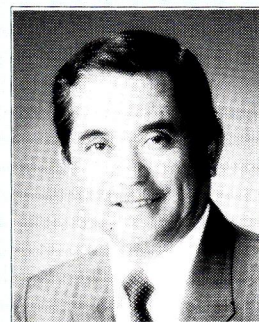
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Leadership Message



Stanley S. Gima, AIA

Kamehameha Schools Site for AIA State Convention

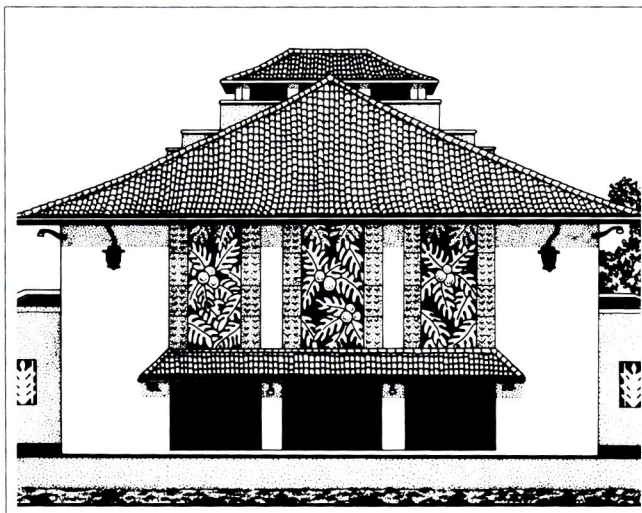
The beautiful hillside campus of the Kamehameha Schools is a very appropriate location to stage a convention for architects. Many exceptional examples of graceful Hawaiian architecture blend with the landscaping and the mountainous environment of the Schools' beautiful 600-acre campus overlooking the city below. For example, most of the convention proceedings will occur in the Schools' auditorium, which was designed by C. W. Dickey.

Convention attendees (and their spouses and friends) will have a rare opportunity to join an architectural tour of this unique campus on the second day of the convention, Oct. 10. The tour is one of the social activities planned to complement the technical and business facets of the convention, which begins early Saturday morning, Oct. 9.

Although the statewide convention will be filled with a variety of scheduled activities, we have planned many interjections of "free time" throughout the convention schedule. During these free moments, you could enjoy refreshments of food and drink and views of trees and mountains above. Or enjoy views of the city below and the ocean beyond. Or you could meander

through the many exhibits, and talk with sponsors from the construction industry. Or just renew old acquaintances (or start new friendships), while enjoying one of several inviting walkways and courtyards on the campus.

Survival in the 90s is the convention theme, and the workshops and seminars will be full of valuable information worth several times the price of admission. However, it's the free "intangibles" of the 1993 Convention—the fellowship, new friendships, relaxing walks, the panoramic views, and glimpses of



▲ Princess Ruth Ke'elikōlani Auditorium, 1937.

architectural history—that will probably provide the pleasant memories you'll treasure for a long time.

So make the decision and register now. The convention is only a month away, and the hard-working Convention Committee is meeting each week, working out the convention details while anxiously awaiting the latest registration count, for an indication of the expected attendance on which to base the final planning commitments. So why not do the committee a big favor and register now? You deserve a break from the routine; come and enjoy the 1993 convention—and also learn some new tricks to help you "survive in the 90s!"

Leadership Message

4 Site for AIA Convention: Kamehameha Schools

The Convention Committee has planned a program that is well worth the price of admission.
by Stanley S. Gima, AIA

Interior Architecture

6 Professional Focus: Adjusting to future needs

Strategic planning pays off for local architecture firm.
by Aubrey Hawk

12 Technology: Impacting the design approach

Interior designers must take into account computer technology requirements.
by Sandi P. Quildon, AIA

26 Diversity: Key to a firm's success

Experience in the various categories of interior design gives a firm the competitive edge.
by Thomas Fudge

Woods

8 Koa Wood: Selecting other timber alternatives

Designers are urged to select other species of wood.
by Len Tai Venuti

14 Treated Wood: An update

Methods of protecting wood from termites reviewed.
by Elmer E. Botsai, FAIA

Features

10 Iniki: Part III - Taking preventive measures

Recommendations are made to protect dwellings from hurricanes in the future.
by Sam Monet

16 The Client: Major ingredient to success

Cultivation of client interface can make or break a project.
by Ted Garduque, AIA

18 Air-Conditioning: Alternative to conventional systems

Sanyo family of air-conditioners are ductless.
by Paul Sanders

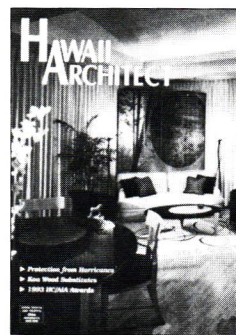
28 Antarctica Projects: Test stations for Hawaii?

Design solutions developed for the preservation of the fragile South Pole environment are adaptable to Hawaii.

19-21, 30 News

24 HC/AIA Design Awards

In this issue...



AUGIE SALBOSA PHOTO

Interior Architecture is the focus of this issue of Hawaii Architect.

A project in the Queen Victoria Residences designed by INK Architects, Inc., is featured on the cover. The project won an Award of Merit in

this year's Honolulu Chapter/AIA design awards program in the interior category—the only interior design project selected for award.

The sluggish state economy is affecting architects as well as professions associated with construction.

As major design projects become scarcer, some architects are re-examining their options and finding that interiors design remains a lucrative option. Firms or building owners today would rather renovate or remodel than sink large sums into large new projects. With the increasing availability of office space, building owners often find they must re-design interiors to upgrade in competing for new lessees or to satisfy American Disabilities (ADA) or other technical requirements.

In the residential home market, mortgage institution executives, such as Marvin Koshi at GECC Financial, remark that many young people today are moving back with more established family members because they cannot afford escalating rental costs. This tendency spurs families to re-think interior space requirements.

Advances in computer technology are having an impact on work trends. Designers are advised to familiarize themselves with computer requirements and to design residences and offices accordingly.

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Adjusting to future needs

Professional Focus

by
Aubrey
Hawk

When architects Joe Ferraro, AIA, and Gerald Choi, AIA, formed their business plan in 1987 they had something going for them: focus. "We took a hard look at where the economy was going," says Ferraro. "We realized that in a small state like Hawaii there will come a time when the land resources can no longer support new buildings, so we decided to focus on interior architecture in institutions and corporations. With technology advancing so fast, people will always have the need to redefine their immediate surroundings."

FERRARO AND CHOI are registered archi-

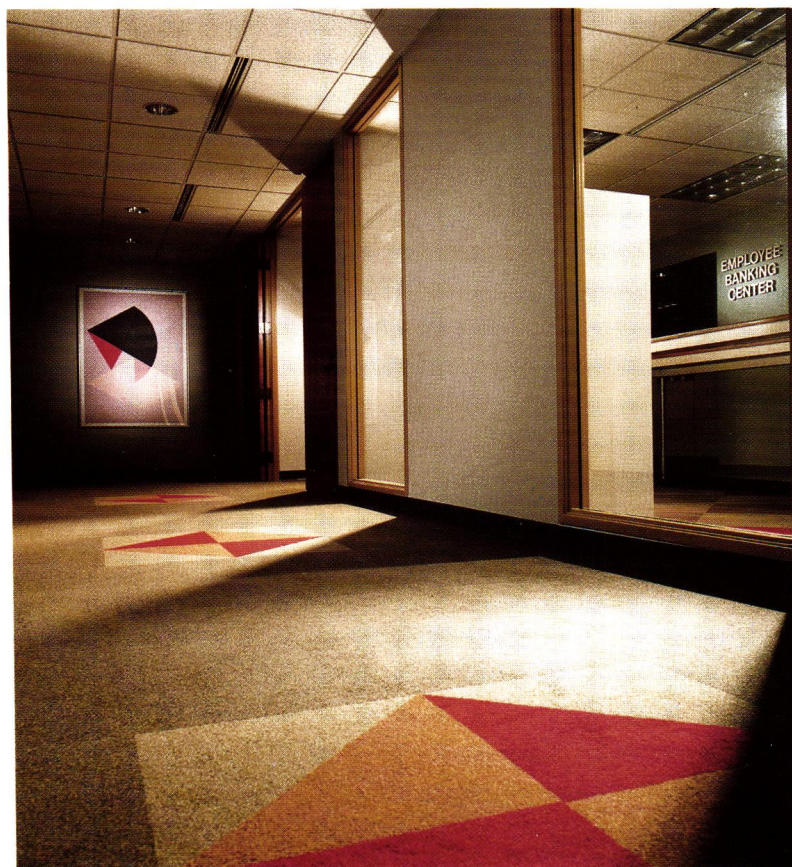
tects and Ferraro also has a degree in interior design. Choi's mathematical background enabled him to fully embrace computer-aided drafting and design (CADD), so the small firm efficiently handles projects and client relationships that span years.

Ferraro says that developing the client relationship is key in the interior architecture business. "The spaces we create are where our clients spend the majority of their time. We have to remain sensitive to their needs. It's what we call 'design from the inside out.' Not just the inside of the building, but the inside of the human element."

The firm is also committed to the well-being of the planet, specifying environmentally sensitive building materials whenever possible and, locally, instilling the spirit of Hawaii into the architecture and design.

A PRIME EXAMPLE is the new headquarters for The Estate of James Campbell in Kapolei. The heritage of the Campbell family and the culture and traditions of Hawaii were paramount in any design decisions. This 49,000-square-foot project features an interior atrium space, 16 feet x 22 feet x 40 feet high, with the top 20 feet taking the shape of the traditional Hawaiian *hale*. Custom carpets are done in crimson and black, with petroglyph symbols of family groupings.

For office seating, the architects worked with Carnegie, a leading international textile company, to develop a new textile appropriately called "Ohana," which incorporates petroglyphs of family groupings set against a background of waves and stripes representing the layers of the Campbell family and island culture. During this process, the architects worked with *kupuna* to ensure that custom was honored and no *kapu* was broken. The design was so well-received by Carnegie that this Hawaiian textile will be added to their 1993 line.



▲ Bank of Hawaii Employee Banking Center.

JIM BUCKLEY PHOTO

FURNITURE WAS SELECTED not only on the basis of design and value, but also on the manufacturers' contributions to preserving the environment.

The new law office of Bays, Deaver, Hiatt, Kawachika, Lezak also benefited from the firm's interior architecture expertise. This 19,000-square-foot project had to look upscale and urban while remaining relaxed enough for the Hawaii market.

The solution was to employ simple, almost austere geometric forms in the entry and reception areas, letting granite paving and theatrical lighting create a quiet elegance. In the private offices, a softer color palette combines with white oak for a more relaxed setting.

BANK OF HAWAII is another client that enjoyed the firm's unique approach to interior architecture. The new Waikele and Mapunapuna branches and the renovated Employee Banking Center in Honolulu utilize flexible Herman Miller "Ethospace" systems specifically researched and developed for the bank. The Bank of Hawaii Trust Department, a two-and-a-half year project, needed to be completely remodeled, with consolidation of five floors of office space—approximately 60,000 square feet—in the bank's downtown Financial tower Building. The architects handled the complex project with extensive programming and planning on computer, thereby streamlining the process.

✦ Aubrey Hawk is account supervisor. AdWorks PR.



▲ New Law Office of Bays, Deaver, Hiatt, Kawachika, Lezak.

HEDRICH BLESSING PHOTO

Campbell Estate moves to Kapolei

The Estate of James Campbell began a new era in its history in July when it moved its corporate headquarters from downtown Honolulu to the City of Kapolei.

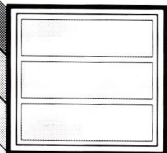
The Estate occupies 45,000 square feet of Campbell Square, a two-building, 126,000 square foot office complex which covers an entire city block at the entrance to Kapolei.

The buildings were designed to reflect the character of Hawaii. The kamaaina-style architecture conveys a charm and tradition reminiscent of old Hawaii.

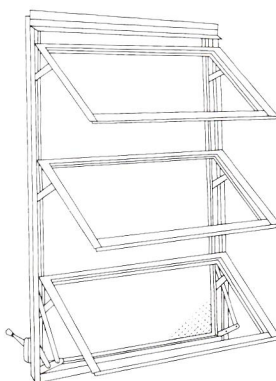
The complex was designed by Kober/Hanssen/Mitchell Architects; Ferraro Choi & Associates are the interior architects for the estate's office space.

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Selecting other timber species

Koa Wood

by
Len Tai
Venturi

Ask Hawaii architects or interior designers to name their favorite wood, and the word "koa" immediately bursts forth from reverent lips. Beautiful, functional and in high demand, koa is considered the most valuable native timber species in Hawaii. From the time of early Ha-

waiians, when it was used to make voyaging canoes, the acacia koa has been prized for its exceptionally fine wood. But koa's popularity may be setting the stage for its demise.

"If we keep promoting only koa we may exhaust our available supply before current planting efforts can replenish the forests," said Mike Robinson, Executive Director of the Hawaii Forest Industry Association.

"KOA IS DEFINITELY the wood of choice in Hawaii ... it speaks of wealth, it speaks of richness, it speaks of heritage and culture," he said. "But there are many other beautiful, useful woods growing in Hawaii that are plentiful and easily harvested."

Concerns over supplies of native species and the need to sustainably manage resources have prompted HFIA to develop *Woods of Hawaii '93*, a statewide woodworkers competition and exhibit.

HFIA hopes to promote Hawaiian-grown, non-native woods and educate the public about Hawaii's forest industry, current reforestation efforts and the need to manage Hawaii's forests wisely.

Woods of Hawaii, which takes place Sept. 8-12 at the Ala Moana Center Exhibition Area, will give architects, designers and craftspeople a first-hand look at Hawaiian-grown woods other than koa.

"ANY TIME WOOD elements are incorporated into architectural and decorating design, it interests the (forest) industry," Robinson explained. "Items displayed in Woods of Hawaii will demonstrate flexibility, and create alternatives for the designer, the architect, to be creative in what they do. It gives them color variations, it gives them texture variations. They're not locked in to one color, they have a full painter's palette."

Peter Simmons, Bishop Estate's Forestry & Natural Resources manager, said alternative



▲ Bob Butts' large monkeypod calabash made out of the monkeypod tree that used to grow in front of Honolulu Hale.

RIC NOYLE PHOTO

woods can also address client cost concerns.

"In 1971 koa stumpage (unprocessed wood) was selling for two cents a board foot," Simmons said. "Now the price gets as high as \$1 per board foot."

"By using koa when appropriate, familiarizing yourself with new veneer techniques and making better use of veneers, you can get high quality, environmentally sound resources that are economically feasible."

"WITH THE AVAILABLE supplies, the price of koa isn't going anywhere but up," added Robinson. "The more it goes up, the more cost-effective it becomes to use other locally-grown woods such as toon, Queensland maple, or tropical ash."

Robinson said that reliance on koa not only depletes a dwindling resource, but limits creative flexibility.

"You can't go wrong with koa, but the wishes of the client might come into play," Robinson said. "The client might want a lighter room, a different pattern or color. I think architects

may want to use some of the unknown woods in the show because they have qualities similar to oak and other traditional mainland woods that are already being used. The woods in the show are grown here instead of having to be imported."

Both Robinson and Simmons agree that healthy forests and a healthy forest industry will depend largely on the use of alternative woods.

"WE HAVE TO START making enlightened use of our resources and understand what's available," Simmons said. "Using a greater variety of planted woods is an environmentally sound practice. And if we are going to start using more woods, I would rather we get them from here than from someplace else."

According to a recent University of Hawaii study, Hawaii's forest products industry is at least a \$25 million a year enterprise, employing many people.

"It's our industry's responsibility to use these resources wisely, and

plan for the future," Robinson said. "Anyone who works with wood or is interested in healthy, productive forests should be a member of HFIA, and they should definitely come to Woods of Hawaii."

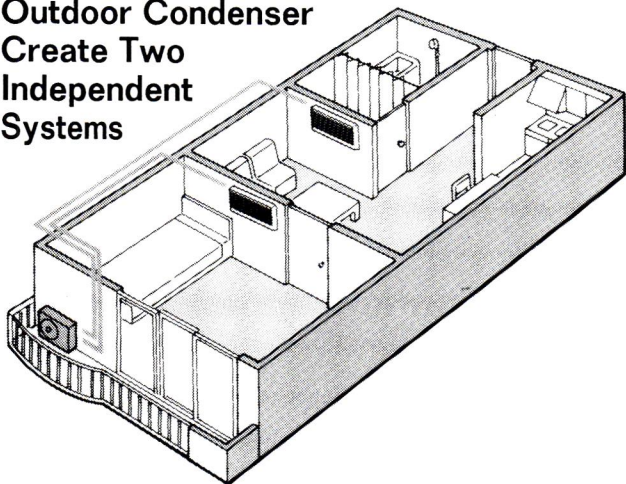
HEIGHTENED SENSITIVITY to environmental concerns coupled with the availability of alternative woods may serve to bring more variety to Hawaii's buildings, furniture show rooms and wood shops.

"The key is to create markets for these other woods," Robinson explained. "Doing so will give us time to regenerate productive koa forests while maintaining industry jobs."

Woods of Hawaii '93 is sponsored by Kamehameha Schools/Bishop Estate, Martin and MacArthur, Bello's Woodturning, C. Barton Potter, Hawaii County Research and Development, the state Department of Business Economic Development & Tourism and the Department of Land and Natural Resources—Division of Fish and Wildlife.

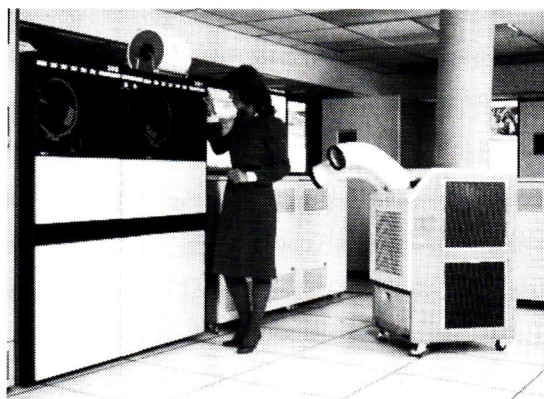
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Part III: Taking preventive measures

Iniki

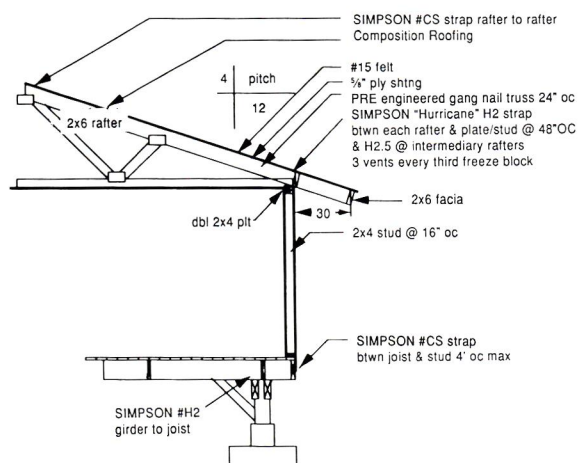
This is the conclusion of a three-part article assessing Hurricane Iniki's ravages on Kauai and offering personal observations and recommendations.

by
Sam
Monet

We live on islands which occasionally are in the path of devastating hurricanes and weather forecasters predict that the frequency of hurricanes in our region of the Pacific is on the rise because of changes in weather patterns and warming trends.

Therefore, the time to prepare for hurricanes is now, not when the Civil Defense's warning sirens are activated. By then, it's too late and residents may have just enough time to board or tape windows, if plywood and tape are readily available.

Long-term hurricane preparation measures do not only involve retrofitting of existing structures, but also the routine specification of reinforcing materials and hardware at design and construction stages, drawing on lessons learned from the Iniki experience.



ON KAUAI, in the aftermath of Iniki, interviews with residents indicated that many of them took refuge in bathrooms as their homes collapsed.

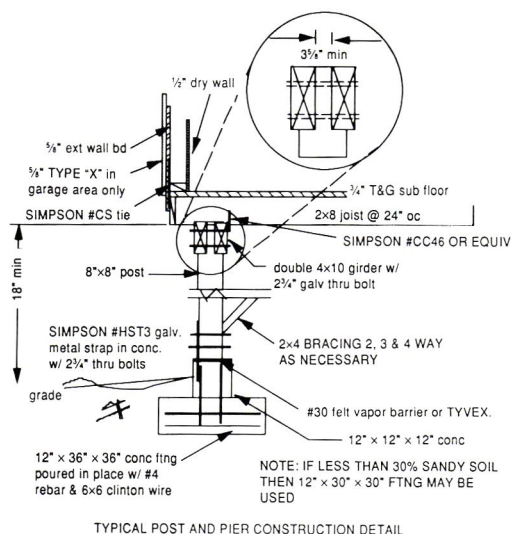
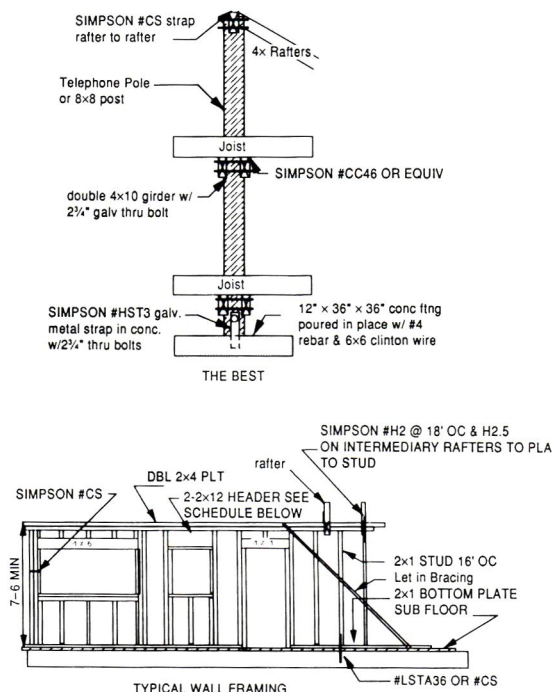
Based on this information, it would seem advisable on new construction that walls and ceiling in one bathroom per dwelling be reinforced with 1/2-inch plywood for sheathing instead of drywall or both, using drywall as the finish material. This would create a "shear wall" to stabilize the structure and give residents a safe shelter to ride hurricanes out.

At the minimum, the following preventive measures are recommended and it would seem appropriate that retrofits in existing dwellings should receive tax credit incentives:

- hurricane ties at joist/girder, joist/wall and roof rafter/top plate junctures;
- minimum 2x6 engineered, gang nailed trusses and 2x fascia;
- plywood (5/8 inch) sheathing on all roofs and use of asphalt shingles;
- louvered vents at gable ends on drop ceilings;
- corner, diagonal bracing on single wall construction;
- some louvered windows or venting in the living area to release pressure on interior space;
- automobile type safety glass (plastic laminate) on concrete or tile construction for hotels, office buildings and condominiums;
- and trim all coconut trees at the beginning of each hurricane season.

It is imperative that design professionals, contractors and builders incorporate wind-resistant engineering in all new construction in Hawaii. Many destroyed homes on Kauai were built by unlicensed builders. These builders should be cited by building inspectors.

Home insurers have been warned that, as a result of global warming, hurricanes in the middle latitudes are likely to become more



Drawings generated for a new housing model for Habitat for Humanity on Kauai by SM Drafting Services.

frequent and destructive.

Data published by the insurance industry indicate that approximately 80 percent of its major losses over the past 10 years have been the result of wind-related damage.

Island insurance agencies know that insurance hurricane in Hawaii is a risky business with the potential for loss outweighing the potential for rewards.

IT IS RUMORED that the insurance industry is considering covering only residential structures after a dwelling's inspection has confirmed

that structure is permitted; surrounding trees are trimmed annually of ripe coconuts (airborne coconuts on Kauai caused more damage than all other projectiles combined); roofs, walls and foundations are in good shape; and structures are fitted (or retrofitted) with hurricane ties.

Changes in global ecology and greenhouse warming are facts. Government must provide the incentives, guidance and leadership and design and engineering professionals the expertise that would prevent mass destruction of homes during hurri-

cans.

Kauai County has adopted the provisions of Appendix 2518 of the 1991 Uniform Building Code. Perhaps it's time to make this code mandatory statewide.

Meanwhile, if no action is taken, an Iniki-strength hurricane hitting Oahu would have the potential to cripple the entire state economy.

➔ Sam Monet, principal broker, is vice president, sales and marketing, Pacific Investors Realty Services, Inc.

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Technology

Impacting the design approach

by
**Sandi P.
Quildon**

A local architect once asked me which I preferred—interiors or architecture. I replied that I didn't view these classifications as mutually exclusive. The tendency in this profession is to separate these two areas of design or "professional practice," because it allows us to somehow neatly categorize and define the boundaries between the two.

Interior architecture—the design and building of interior spaces—relates directly to characteristics and elements of function, aesthetics and structure. More importantly, the design of interior architecture requires the very same skills and methods of organization and resolution of problems that were used to design the original or existing building and its components.

Interior architecture has taken a backseat in the overall planning and design of buildings in the past. However, we now recognize as designers and planners that project requirements and clients are changing with technology.

If interior architecture is to respond to the needs of more sophisticated clients and users (both functionally and aesthetically), when computers, communication and information systems are evolving with greater complexity, planning for the integration of these systems cannot be overemphasized.

RESPONDING TO THE INCREASED use of computers and resultant glare and eyestrain associated with their use necessitates the knowledge and integration of various lighting levels and types. Planning for flexibility and growth when analyzing the needs of potential users of a space or facility is invaluable in satisfying project requirements.

Additionally, there are advantages in creating "marketable" interior space. To attract prospective tenants requires the upgrading of ex-

isting interiors and facilities to provide newer and more durable materials and more visually stimulating and physically responsive interiors, and amenities which satisfy building user needs (restaurants, healthclubs, shopping, etc). Given an economic recession that left, in some areas of the country, a glut of commercial, retail and office space, a higher level of vacancies and more negotiable lease arrangements, providing more marketable interiors is a must.

BEARING IN MIND abundance of existing space, the adaptive reuse of existing buildings and interiors may be a worthwhile alternative and investment to owners and clients. By reducing the amount of time and the arduous task of obtaining zoning, building department and land-use approvals, the adaptive reuse of existing buildings could provide the necessary elements in satisfying project requirements, provided it is a feasible choice.

This provides interior architects, designers, and planners with the challenge of matching client/user needs against existing building constraints—low ceilings, outdated materials, antiquated HVAC and electrical systems, etc. As a proponent of adaptive reuse, I believe these constraints should be explored as part of the design solution and not merely as a problem or restriction. To this end, architects and designers are challenged with incorporating state-of-the-art technology in outdated and historic structures with antiquated mechanical systems and components.

The exploration of new technology in developing new materials, recycling existing materials to derive new materials that are "environmentally safe," and using existing materials in a non-traditional and innovative way are only a few areas where interior architecture has brought about a new focus and perspective.

♦ Sandi R. Quildon, AIA, is project architect, AM Partners, Inc.



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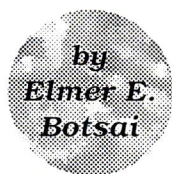
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An update Treated Wood



by
Elmer E.
Botsai

The standards discussed in the June, 1992 article, "Pressure Treated Wood in Hawaii," in *Hawaii Architect*, set forth my recommendations to help keep buildings intact and avoid legal action over termite risks. However, two important changes have taken place since publication of that article:

1. AWPB, and standards LP-2 and LP-22 (which were well understood), no longer exist. These standards may not be recognized by building departments or accepted in the courts.

2. Honolulu is considering new termite protection standards. These standards, if adopted, either:

a. Require soil treatment with approved chemicals or installation of a BTB barrier and treatment of all structural lumber, including plywood and decking, in accordance with the Hawaii-use-only standard that includes end cuts to be field treated.

b. Only require treatment of structural lumber, including plywood and decking, in accordance with AWPB C1, C3, C9 (approx. old CP.2) or the approved Borate treatment.

I RECOGNIZE THE DIFFICULTY of making changes in the building code, which is a political process. As such, I strongly endorse the proposed changes because they represent major improvements in meeting Honolulu's termite protection needs. Nevertheless, I still strongly recommend our profession use more stringent standards in our work. I believe the proposed code standards will still not provide adequate protection against a significant Formosan termite colony, nor do I believe soil poisoning is worth the money, or that BTB is routinely installed in a completely effective manner. Accordingly, the following is an update on my previous comments:

a. Currently available soil treatments are generally useless over any reasonable life expectancy of normal buildings. If you rely on soil treatment, allow for re-treatment at the end of each chemical application life. I believe money spent on soil treatment can be better spent elsewhere with greater long-term effectiveness.

b. BTB barriers appear permanent if properly installed. BTB is a good material, but suggest full-time inspection throughout slab pouring operations to ensure the barrier stays intact.

c. CCA is a permanent material. Unfortunately, it does not normally penetrate heartwood, and, more unfortunately, Douglas Fir is mostly heartwood. The new incising machines offer hope in this regard but they are not yet available in Hawaii. Currently, I would not use CCA on Douglas Fir.

I WOULD PERSONALLY CALL for .5 pound/cubic foot retention with an assay zone of $\frac{1}{32}$ inch to $\frac{3}{4}$ inch deep in 2X material and $\frac{1}{32}$ inch to 1 inch deep in 4X material. I find no problem in any thickness of plywood. In fact, I would accept .4 inch/cubic foot in plywood.

d. ACZA is also a permanent material that has a problem penetrating heartwood; however, it does a considerably better job than CCA. You can get adequate penetration in Coast range Douglas Fir. I would not even use ACZA on the inland region Douglas Fir. Incising is required. Finally, ACZA warranty is intact with or without soil treatment.

I PERSONALLY FEEL COMFORTABLE with either a .25 pound/cubic foot or a .4 pound/cubic foot retention with an assay zone of $\frac{1}{32}$ inch to $\frac{3}{4}$ inch in 2X material and $\frac{1}{32}$ inch to 1 inch in 4X material. Again, no problem with plywood.

e. HI-BOR is a chemical that is not permanently fixed to the wood but disperses through

moisture in the wood. This unusual property can be good or bad, depending on the conditions. It is bad if the wood is exposed to rain, irrigation water or soil contact because the Borate may leach out of the wood; it is good because the normal moisture in the wood will slowly disperse the Borate throughout the member.

EXCLUDING THE INLAND REGION Douglas Fir, Borate penetration appears to be better than even ACZA; it does not require incising. Accordingly, I recommend .3 pound/cubic foot retention with an assay zone of $\frac{1}{32}$ inch to $\frac{3}{4}$ inch for 2X material and .4 pound/cubic foot with an assay zone of $\frac{1}{32}$ inch to 1 inch for 4X material. Again, it provides plywood excellent protection.

I like borate, but it appears to have a slower kill rate than either CCA or ACZA. As such, surface attacks may occur.

In conclusion, keep the following points in mind. Termites don't eat CMU but use it as a highway system. I would not advise using CMU below grade without stringent details to stop termite travel.

SECONDLY, I BELIEVE a continuous glob of BTB around the perimeter of the structure is an excellent idea to deny termite entry. I would also cover this BTB with pavers or thin concrete to keep it intact.

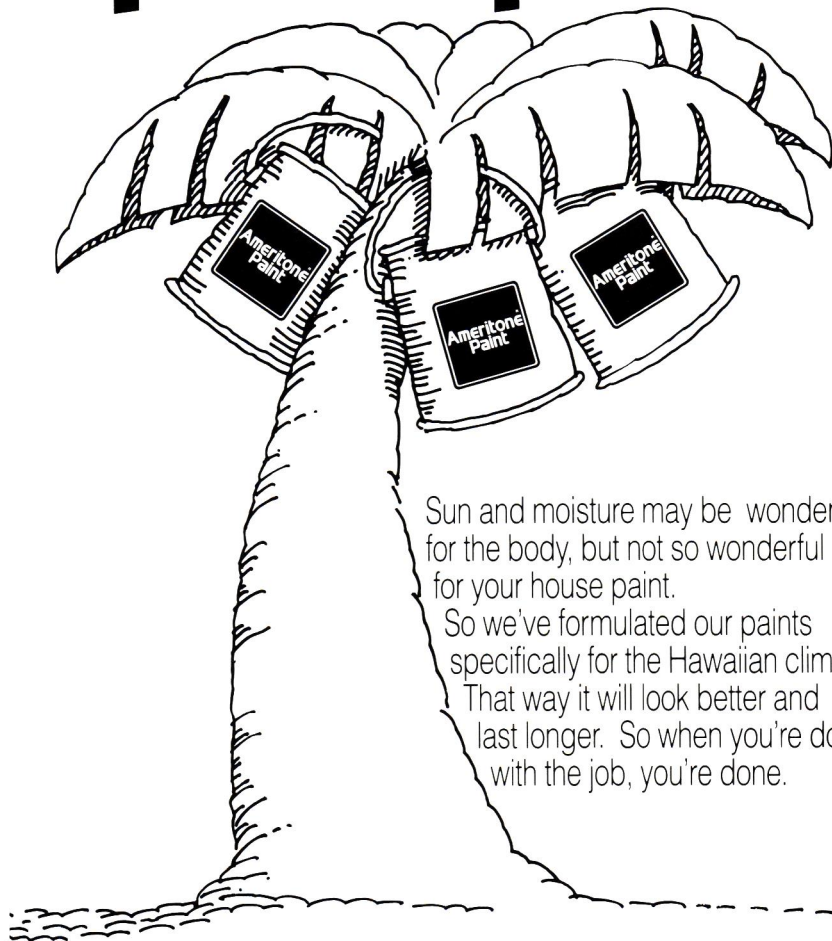
Thirdly, take care of pipe penetration through slabs; that is, do not allow the insulation to stay on pipes as they pass through concrete and do something about tub and shower block outs, they can be deadly.

LASTLY, AS MUCH AS POSSIBLE, control cracks in concrete. I like good rebar placement, low water cement ratio and some poly propylene fiber in the mix. Remember, termites do not eat or go through solid concrete.

I still like wood, and it can be used, but I recommend we take precautionary measures.

♦ Elmer E. Botsai, FAIA, is professor of architecture, University of Hawaii-Manoa and past president, Honolulu Chapter/AIA and AIA (national).

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Major ingredient to success **The Client**

by
**Ted
Garduque**

The client is an important factor in the success of any project. A worthy client brings the necessary capital to execute a project, an experienced one sets the philosophical tenor for design and the spiritual kinship of team members on a project. From this instruction comes the ensuing leadership of the architect, who then translates the client's visions and aspirations (as well as the architect's own) into an economic and sculptural reality.

The design process is as important as the end result. This is often misunderstood by novice clients who look only to the economic end. Often, meager fees are not enough inspiration to continue in this hallowed profession. One must view the practice of architecture as an avocation to survive with dignity, not as a mercenary endeavor.

Some of our firm's most enjoyable moments have come at the hands of "professional" clients, my term of endearment for those clients possessing wisdom. The many hours of exchange of information and criticism that an architect spends with a client increases the understanding of the client's needs, thereby increasing the chance of a project's success. A

by-product of this relationship is the enhancement of a practitioner's own self-development and knowledge.

ACCOLADES AND PRAISE from a client are rare. We do not expect this from anyone, and therefore it is a joyous occasion when a compliment is received. Instead, we again look to the process of creativity and exchange as the reward for a project well done. We know ourselves when a project is deserving of recognition and whether a project has met expectations of excellence.

A good client can be the driving force of excellence. In this pursuit, they will leave no stone unturned to reach optimum design. And, they will pay for this service. On one project, our firm generated 42 different schematics for Thos Rohr and Alan Beall. After design development, we were \$2 million over construction budget.

After construction documents and prior to bidding, we were \$1 million over construction budget. To their collective credit they said, "Don't change the design, we love it. Find a way to meet the budget by taking the cost out of your fees." It was in the spirit of compromise that the design team found a way to meet the budget set by the client and save our fees. One of the joint measures we took to bring the project back on line was to excuse the attorneys from our list of consultants.

ATTORNEYS CAN BE GOOD clients. Our firm values their patronage and their connections to other clients. Attorneys are educated people with the tendency to be contrary. Law firms retain us to decipher CC&Rs, zoning or litigation briefs that they have written. In some instances, after completing this type of assignment, we are called into a meeting room with lawyers and asked to defend our interpretation.

As a result, we have learned that with this type of client, architects must be prepared to defend themselves for something they had noth-

King's Shops in
Waikaloa, Big Island
was designed by
Garduque
Architects. ▼



ing to do with. However, after a process like this, one feels more confident about the paradoxical world of law and knows that educated statements based on expert knowledge are still subject to interpretation. In essence, some of our attorney clients pay us to argue with them.

Other clients have bestowed priceless wisdom in lieu of fees. One of my greatest treasures of knowledge came from Colin Cameron, whom I had worked for (along with Thos Rohr) while at Kapalua Land Co. Colin would spend a few short hours with me discussing his aspirations for Kapalua and Maui. Beyond that, he had a keen sense of the value of land, the role of the environment and nature in the scheme of things, and in fact, that these were marketable virtues. He was one of the few people who purposely looked to decrease density on a given site at Kapalua, rather than "maxing it out." The resulting open space and ambiance at Kapalua speaks for itself.

THERE ARE CLIENTS who value



▲ Kings' Shops this year won best Retail-Commercial Award in the Excellence Awards Program sponsored by the National Commercial Builders' Council.

COLOR PRINTS INC. PHOTOS

the quality of environment and quality of architecture as a foundation for good business. These clients, like compliments, are rare. If there is ever recognition due, it should go to clients who understand and perpetuate the value of good design and the importance of an architect's service.

♦ Ted Garduque, AIA, is founder and principal architect of Garduque Architects, and is past president of the AIA/Honolulu Chapter. Garduque Architects recently won national recognition for the design of Kings' Shops, from the National Commercial Builders Council in the Award of Excellence Program.

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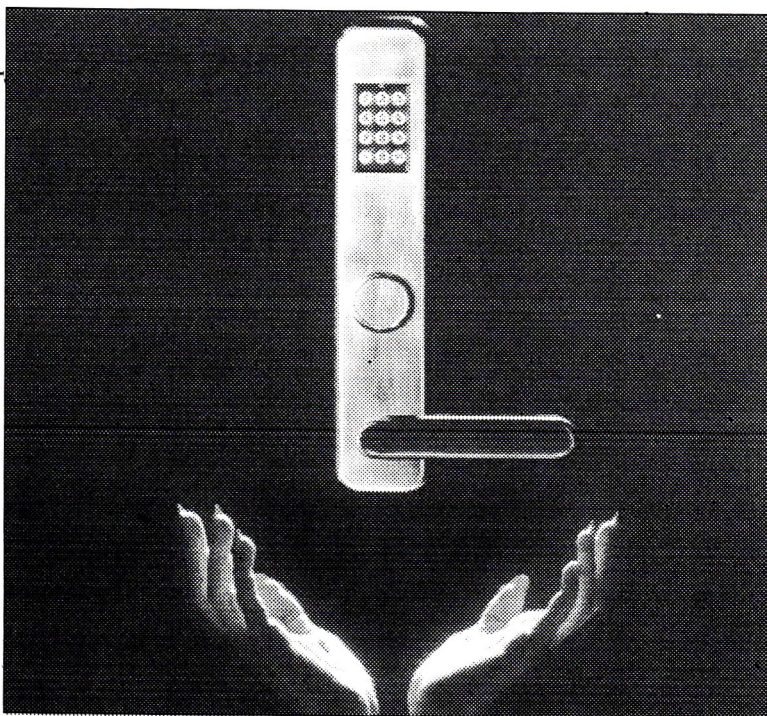


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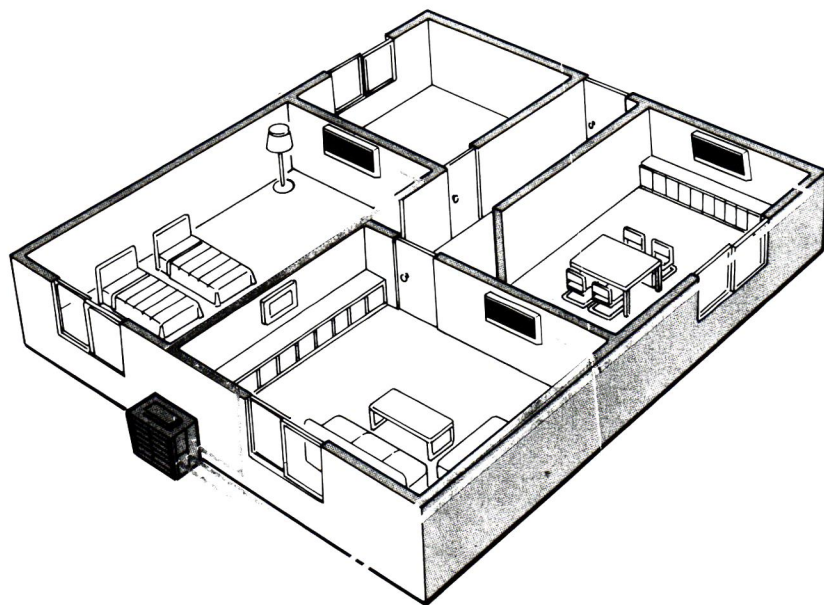
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An alternative to conventional systems **Air-conditioning**

by
**Paul
Sanders**

Retrofitting a home or office with conventional air-conditioning systems can be a major undertaking requiring considerable demolition to incorporate ducting. However, there are less expensive alternatives worthy of consideration at the design stages, or after the fact. Sanyo manufactures a line of state-of-the-art and economical ductless air-conditioning systems.

The Sanyo systems provide quiet and efficient cooling in places where air-conditioning is truly needed, and installation is not a major undertaking. Connection between the cooling system inside a home to the main unit outside is accomplished through a three-inch wall opening.



▲ Sanyo ductless air-conditioning system featuring three indoor units connected to a single outdoor condenser.

WITH THIS SYSTEM, there is no ductwork, no window obstructions and no noise. An advanced computer control system reduces energy consumption, while automatically maintaining a comfortable room temperature. Several models also feature heating for year-round versatility.

The systems are available in several models and shapes to accommodate practically any application. For example, Model 24XS22 is a recessed ceiling-mounted unit for cooling; Model 09KS11 is wall-mounted; or Model 24THS22 is a space-saving ceiling suspended split unit.

There are many options and shapes to choose from, each with voltage ratings and cooling and heating capacities to satisfy most needs.

ONE OF THE SYSTEM'S MAJOR ADVANTAGES is its flexibility. The units are small and can be installed quickly at a fraction the cost in areas where air-conditioning is truly needed, while consciously ignoring areas exposed to cooling tradewinds.

For applications involving mobility or spot-cooling, Nippondenso of Los Angeles, Inc. manufactures air-conditioning units, MovinCool, which are designed for the high ambient temperatures found in industrial environments or which can be used for supplementary or emergency back-up cooling.

THE SYSTEM'S MAJOR ADVANTAGE is that it conditions only the critical areas, allowing large central systems to shut down, thus resulting in considerable savings.

A few applications include automotive service bays, computers, PBX equipment, medical equipment, temporary work stations, production lines, clean room/laboratories, etc.

In Hawaii, the entire line of Sanyo ductless split air-conditioning systems and Nippondenso's MovinCool and SpotCool are carried by Servco Pacific, Sanyo Fisher Division.

Waikiki Building Fire Displaces 43 Businesses

Smoke poured from behind the graceful facade of the landmark Waikiki Bank of Hawaii building for 37 hours, beginning at 7:45 a.m. July 26.

Before it was over, 22 fire companies responded to the smoldering inferno at 2222 Kalakaua Avenue, where a fire in Woolworth's second-floor storage room in the base of the structure proved to be one of the

most stubborn building fires the Honolulu Fire Department has ever encountered.

Tremendous heat, with temperatures estimated at 2,000°F, and lack of ventilation and clear access to the fire hampered firefighters' efforts.

At press time (Aug. 19) some facts had been established, and evaluations continue: structural damage was confined to the building base, where four concrete beams and the exterior wall facing Lauula Street were damaged. Structural engineers Martin and Bravo had begun shoring work and estimated that permanent repairs may require four months to complete.

Assessment of electrical, mechanical, and telephone systems had not been completed at press time.

Smoke damage prevailed throughout the 16-floor tower.

On the ground floor the Bank of Hawaii had reopened. Woolworth's had estimated a loss of \$4-\$5 million and set no reopening date.

The tower's 43 displaced tenants

were relocating as and where they could. It was estimated they may be able to return to the building within two months.

One of the largest among tower tenants is Wimberly Allison Tong & Goo, architects who designed the prize-winning building in the mid 1960s.

They relocated to Kalakaua Center, at 2155 Kalakaua Ave.

WAT&G principal Donald G. Lee attributed the speedy recovery to "determination on the part of all hands to keep servicing clients with as little interruption as possible and without missing critical deadlines."

He explained that they began informing clients, from home, even before the fire was out and organized a phone tree to keep staff informed.

"The day after the fire was out we leased relocation space and we moved in over that weekend," he explained.

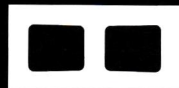
"By Monday, Aug. 2," Lee said, "we had set up some 50 drafting stations and our full staff was back to work."

♦ Mazeppa King Costa

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and other design professional organizations, current list of elected officers and many more useful numbers at the national and local levels.

For additional information, contact Bob Lazo, AIA, 528-3139.

Manual to Benefit Designers

A "Resource Manual for Design Professionals," currently in preparation, will not be ready in time for the AIA's state convention Oct. 9 and 10, as had originally been planned.

The publication deadline was slipped by a few weeks said Stanley Gima, AIA, president-elect, Hawaii State Council/AIA, to ensure completeness and accuracy of contents and give architectural firms which have not yet reacted to a letter sent by the council a chance to respond at this time. The letter asked member firms to support this effort by contacting engineering firms which might be interested in supporting the publication through advertising par-

ticipation.

The aims of this task group are to publish a resource manual which contains "all the names and telephone numbers designers, engineers and associated design professionals commonly call during the course of a business day."

Gima indicated the manual will not only benefit architects but also participating engineers and associated design professionals because it provides, under one cover and for all islands, the names and telephone numbers of AIA members—individual members and firms—state, city and county permitting offices, names and addresses of engineering

Achievements Recognized

Special presentations and announcements were made at the 1993 Design Awards Banquet at the Hawaii Prince Hotel on July 22.

Kurt H. Mitchell, AIA, president of the Honolulu Chapter/AIA, said work has begun on a Humanitarian Award to be given in memory of Gordon Bradley, AIA, who died earlier this year. The award will be presented to an architect each year who has made significant contributions to the community "in ways not directly connected to the architecture profession." The effort is headed by Chris Smith, FAIA.

Alison Nakatani, who graduated this spring from the University of Hawaii with a Master of Architecture, was presented with a President's Award for the design and construction of a traveling exhibit entitled "Architecture and the Built Environment" in one of the two Department of Education artmobiles at UH.

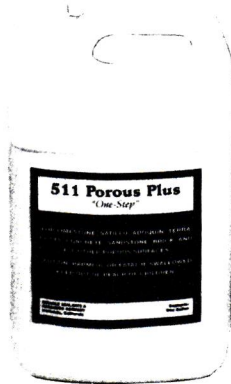
Frank Haines, FAIA, and Buck Welsh, AIA, Architects Hawaii, made an eight-minute presentation honoring company founder Cyril W. Lemmon, FAIA, who died June 10 at the age of 91.

The slide presentation featured some of the notable buildings designed by Lemmon, among which the Boysen Paint Building, the Waikikapahu Library, the Gregg Sinclair Library at U.H., the First Hawaiian Bank Building and the state Capitol Building.

The presentation also highlighted significant milestones in Lemmon's life, which started in England in 1902.

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ADR Workshop Scheduled

The Professional Development Committee of the Honolulu Chapter/

AIA will host a workshop, "Alternative Dispute Resolution (ADR)," at the Hilton Hawaiian Village Sea Pearl Suite, Oct. 2, 8 a.m. to 3 p.m..

Presenters include Keith Hunter, regional vice president and founder, Honolulu regional office of the American Arbitration Association; and Mary Yashimoto, account executive, Finance Insurance Ltd. Panelists in-


clude Phillip L. Deaver, Esq., managing partner of the Honolulu law firm of Bays, Deaver, Hiatt, Kawachika & Lezak, and Allan Holl, AIA, CSI, project manager, Media 5.

Attendance is \$75 for members and \$90 for non-members. Contact the AIA office for additional information, 545-4242.

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Structural Steel Update

Steel Styles

Project Profile: Kukui Gardens Repair and Maintenance Project

Architecture

The Kukui Gardens Complex is the largest low income rental project in the state of Hawaii. It consists of 822 units distributed among 44 buildings along Vineyard Boulevard, College Walk, Kukui Street, Aala Street, Beretania Street and King Street. The complex is a mixture of three- and six-story buildings constructed out of CMU and concrete.

The project is approximately 23 years old and 70 percent of the residents have lived there since its opening. Kukui Gardens is a highly visible part of Downtown Honolulu.

The project was originally designed with a flat roof. In

recent years, however, the buildings experienced water infiltration through the built up roof. Maintenance of roof area has been a constant problem for the owners. Kukui Gardens Corporation, a non-profit organization, which runs the project, retained the architectural firm of Mitsunaga & Associates, Inc. to solve the water infiltration problem.

The firm is highly specialized in solving building problems of this nature. Architect Steven D. Wong, A.I.A., said a study was made and various alternative solutions were presented to the Board of Directors.

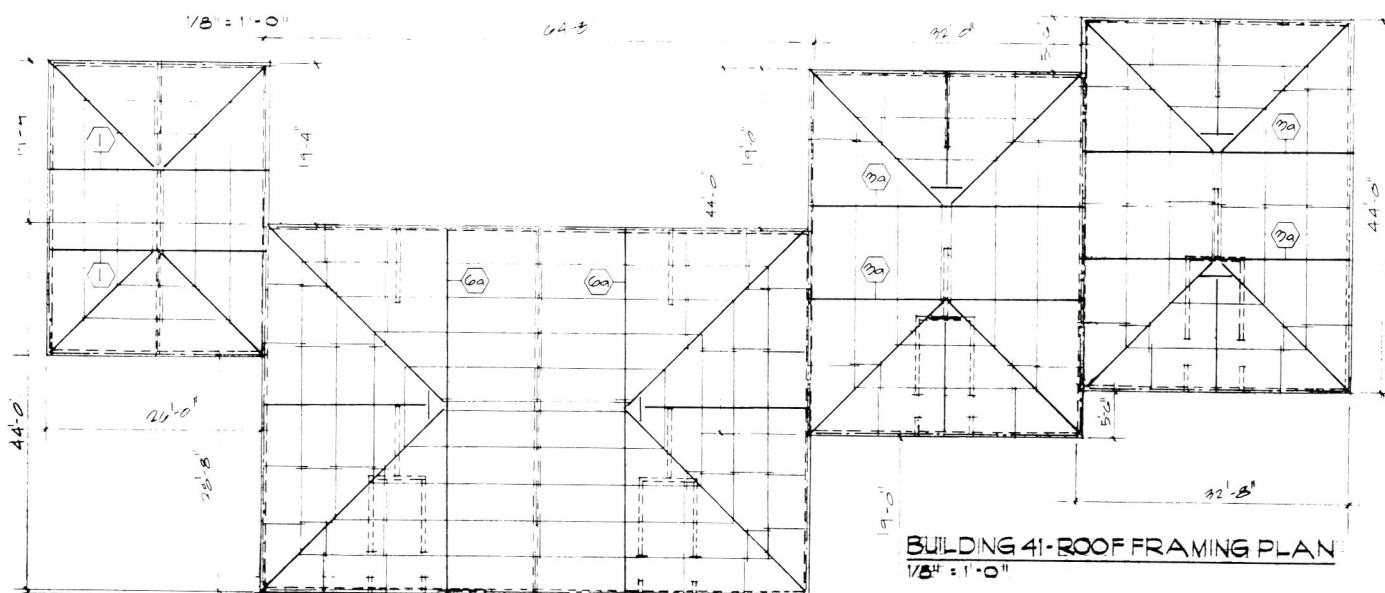
Input from Bob Tsushima, a Board of Director member and a principal from the architectural firm of Johnson, Tsushima, Luersen, Lowrey, Inc. was especially helpful. It was finally decided that the ultimate solution was to construct a steel roof and steel framing system over the existing flat portion of the roof of each building. This solution meant a double roof over each building and hence double protection against water.

Steel was selected for its durability, strength, ease of fabrication, fire resistance, light weight qualities and aesthetics. The architect specified a roof sheathing called "Huski-Rib" from HCI Steel Products with a Kynar 500 coating.

The new pitched roof design on all of the buildings have conveyed a more residential character on the entire project. The residents and owners have expressed much satisfaction on the final outcome. Maintenance personnel are also pleased since a 20-year warranty on the roof was provided.



Kukui Gardens Complex

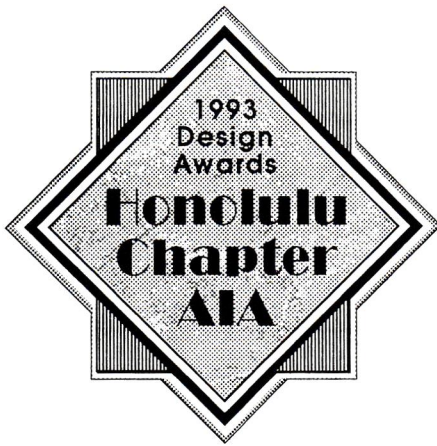


Engineering

A wood truss system was originally examined as an alternative structural system for the metal roof sheathing. Steel was eventually selected because of its durability. The steel trusses were all prefabricated and shipped to the site.

Kukui Gardens Repair and Maintenance Project





Award of Merit

Interiors

INK Architects, Inc.
The Queen Victoria Residences

In 1992, a young professional couple with one child challenged INK Architects, Inc., to create from a bare concrete loft condition a custom two-story townhouse residence in a mid-rise multi-family apartment structure with the ambiance of a single family home—The Queen Victoria Residences.

The architects accepted that challenge, successfully “integrating one spouse’s desire for a contemporary clean look with the desire for an Oriental motif of the other spouse.”

It was decided early in the design process to use simple and disciplined interior architectural elements and details to achieve a contemporary clean look.

The selection of architectural lighting and finishes and fixtures complement and feature Oriental art objects rather than vie for atten-

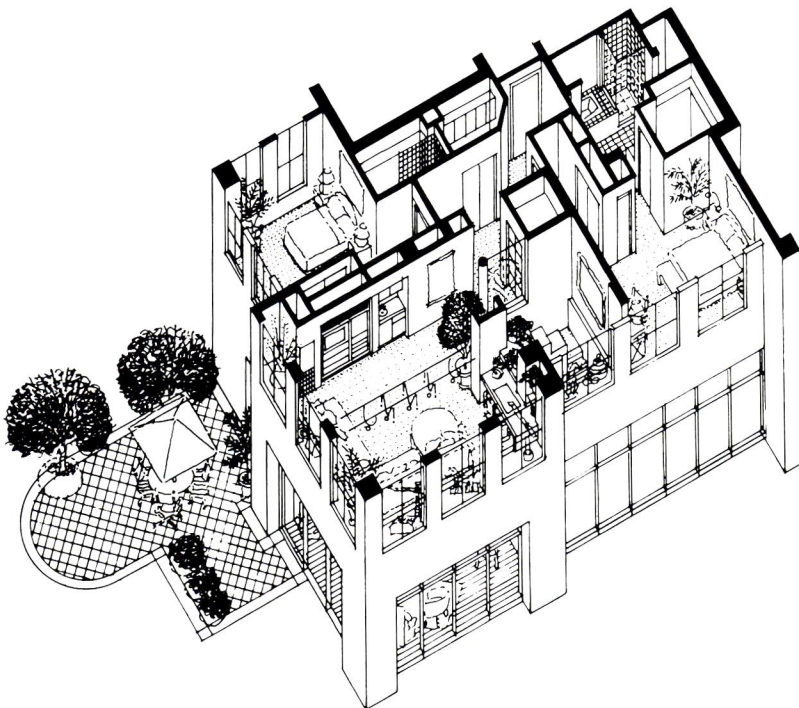
tion. The Oriental motif was delicately and tastefully satisfied through interior furnishings, accessories, art work and certain finishes.

High vaulted faux finished ceilings, an architectural geometry not common to apartment units, soothe, cap and integrate the otherwise rectilinear features of ground level spaces. White veneered plastered walls, ledges and soffits with radiused vertical corners and crisp 90 degree horizontal corners project simplicity and clean lines—adjectives common to both Oriental and Contemporary work.

Contemporary elements utilized include high-tech low voltage recessed lights and sculptural wire hung fixtures, Forms and Surfaces hardware and state of the art appliances, audio/video and lighting systems.

Polished black granite, polished, lacquered and exotic wood-veneered cabinetry and faux finished surfaces project a custom residential look while bridging the Oriental and Contemporary realms.

Light stained wood flooring on the entire ground level, wool berber carpeting on the second level and fabric covered bedroom walls provide the warmth of a custom residence in a concrete structure.



▲ Axonometric view of the Queen Victoria Residences, Second Floor.

CREDITS

Architect:

INK Architects, Inc.

Principal in charge:

Maurice Kondo, AIA

Mechanical engineer:

Syntech Ltd.

Electrical engineer:

Toft, Moss, Fardon Associates

Structural engineer:

Consulting Structural Hawaii, Inc.

Interior Furnishings:

Pam Lacayo Interiors

Faux Finishes:

Sharman Miller Studio

Contractor:

GW Murphy Construction Company, Inc.

Judges Comments:

"An apartment that feels like a single-family residence. ... Nicely detailed, restrained interior design. ... Took advantage of every available space." The result is an apartment that, in the words of one juror, "feels like a custom single family residence."



◀ Kitchen with vaulted ceiling.



◀ Family room with built-in audio/video bar.

AUGIE SALBOSA PHOTOS

Key to a firm's success Diversity

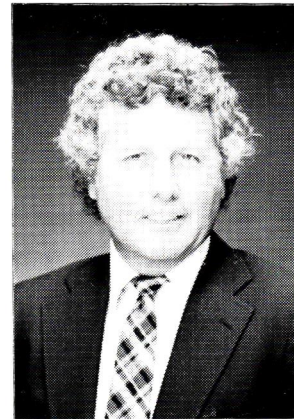
by
**Thomas
Fudge**

In commercial and interior architecture, diversity is key to a firm's continued success. As a firm adds to its "knowledge bank," it improves its chances for new business in many interior design categories. Each category is approached differently to satisfy specific clientele requirements. Four of these interior design categories are discussed below.

Tenant Improvements

In Honolulu, office building developers generally contract with a TI (Tenant Improvement) architect. The TI provides interior architectural services for prospective and existing tenants within a given building. As a member of the building's leasing team, the architect quickly develops space plans to provide prospective tenants with the opportunity to review their space requirements and make a leasing decision. Tenant signing of lease agreements is the

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MICHAEL FRENCH PHOTOS



Thomas Fudge

*"New
buildings
must
attract
tenants
from
existing
buildings."*

architect's signal to proceed with design and construction documentation based on the building-specific standards.

Building Improvements

Building improvement projects generally deal with public spaces within a building. This work usually involves areas that tenants continually see and touch. The importance of building improvements is that they set the tone for the rest of the building. Two major factors influence building design improvements in Honolulu's office buildings.

New buildings must attract tenants from existing buildings in town. Older buildings must renovate their public spaces in order to remain competitive and retain their tenants.

Another important factor is the ADA (Americans with Disabilities Act of 1990) which dictates special accommodations and access for all public accommodations.

Restaurants

Design is an important determinant in the success of a restaurant. It is the part of the



working collaboration that successfully blends environment, food, clientele and the personality and style of the restaurateur. Failure in any one of these areas is likely to precipitate failure in other areas as well.

The designer's knowledge of the cuisine the restaurant will serve is essential, because it is the responsibility of the designer to create the desired ambiance through lighting, table settings and the energy of the restaurant.

Corporate Interiors

At Kober/Hansen/Mitchell Architects, the goal is to achieve high-tech corporate interiors that are softened with colors, textures and materials which are uniquely Hawaiian in character. To meet the efficiency demands of the nineties, it is important that office spaces provide warmth within a much more "open office" environment. Combining high-tech modular panel systems with warm inviting fabrics and graceful wood detailing gives these projects an efficient, yet elegant style.

Design Philosophy

Interior architecture is a complex art form. Each assignment demands a different, yet integrated blending of texture, color, light and mood. Hawaii's tropical setting, combined with contributions from many other cultures have created a distinctive "island" style.

The firm's interiors design approach derives its character from Hawaii's unique cultural blend which incorporates design elements influenced by the Orient, Pacific Islands, U.S. mainland and even Europe. We then mix these elements with high-tech and urban elements to create a unique, bold yet graceful "Hawaiian style" of design.

Our principal goals is to understand and satisfy our client's needs and desires.

◆ Thomas Fudge is director of interiors.
Kober/Hanssen/Mitchell Architects.



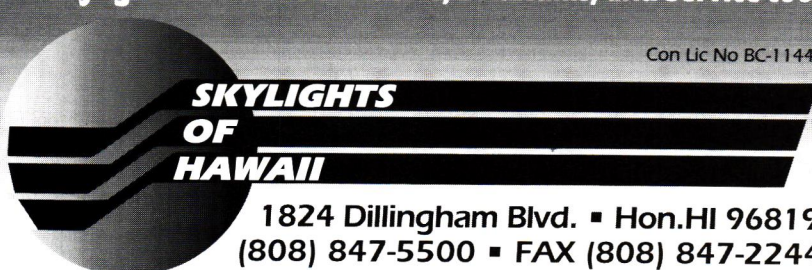
▲ Lahaina Broiler (restaurants).

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Test stations for Hawaii? Antarctica Projects



▲ Entrance, Amundsen-Scott South Pole Station.

Existing snow-drifted station with arches, towers and dome. ▼

What could Antarctica and Hawaii possibly have in common? Plenty, according to Joe Ferraro, AIA, partner at Ferraro Choi & Associates and principal in charge of a design project for the Amundsen-Scott South Pole Station and McMurdo Station, Antarctica.

The firm is under contract with the U.S. Navy for work with the National Science Foundation (NSF), to provide architectural and engineering services for the two stations.

In Antarctica, Ferraro's design team must incorporate preservation of the environment in its work by introducing new sources of power generation and waste processing and disposal.

The team must also address the need for a self-supporting food supply, and the life and safety of year-round staff and logistics for construction and ongoing support.

With these criteria in mind, Ferraro notes



Joe Ferraro, AIA,
and Lee Davis, AIA,
with Mount Erebus
volcano in the
background. ►



that Antarctica could serve as a "test station" for Hawaii—both are isolated and remote.

THE HYDROPONICS, aquaculture and waste recycling technology the firm is developing on the ice could be implemented in Hawaii, resulting in less dependence on the mainland and foreign shipping.

The crucial programming phase for the design project at Amundsen-Scott South Pole Station was initiated earlier this year and completion is expected this fall.

Ferraro, Lee Davis, AIA, project director and Jim Guequierre, designer, say their findings confirm the need for the new design elements they are working on. "The original station was built on the snow's surface, in the 1950s. As a result of drifting snow, the structure is now buried 30 feet under snow. The current structure, built in the 70s, is experiencing similar problems. The new station will be raised above the snow's surface and will even be capable of future raising as snow heights increase," Davis said.

A snow drift design guide is being created to gauge the effect of building placements, and to determine the need for additional structural supports.

DAVIS ADDS that the new station will respond to the environment more efficiently, with better insulation, solar energy, solid waste reclamation and even a fresh water "well" that utilizes the building's waste heat. This means the structure will also have a relatively gentle impact on the fragile Antarctic environment.

The design process is scheduled to start in October. It is expected to be a multi-year project.

A 50 percent increase in life expectancy for the new research station is anticipated—30 years compared to 20 years for the first two stations.

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Renewal of Fort Street Mall

Hawaii Architect ran an incorrect photo with last month's article on recent renovations to Fort Street Mall. Here is a current photo of the renovations designed by PBR Hawaii, for the City & County of Honolulu. PBR removed heavy concrete trellis ways and carefully placed seating areas, and located moveable concrete planters covered with colorful ground cover to create a pleasant mall environment for its visitors. Tropical coconut palms dominate the landscape of the mall.



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Publisher Releases Architecture Book

Coral House Publishing Honolulu and Mutual Publishing have announced the October release of a coffee-table book, *Architecture in Hawai'i: A Chronological Survey*.

This 152-page book, features 240 full-color photographs depicting more than 150 architecturally and historically significant buildings in the islands. It was written by Rob Sandler, noted architecture writer, and edited by Frank S. Haines, FAIA, chairperson, Architects Hawaii, Ltd.

Workshop Features Peter Calthorpe

San Francisco-based architect Peter Calthorpe, one of the leaders of the movement to rethink the nature and quality of growth, and to redesign the American Dream, will present his design philosophy along with Dr. Anne Vernez Moudon, director of the Urban Design Program, University of Washington, in an all-day workshop charette scheduled for Oct. 22 at Tokai University.

The hands-on workshop will offer participants an opportunity to apply Calthorpe's new community planning model to the Hawaiian context. Three sites on Oahu will be used for the application and evaluation of Calthorpe's design principles.

Workshop co-sponsors include the American Planning Association, the American Institute of Architects, and Mullahey & Mullahey in association with the Commission on Housing and Community Development (Department of Housing and Community Development—City and County of Honolulu).

For additional information contact Alex Neuhold, AIA, at 263-0671 or Ramona K. Mullahey, APA, at 533-0777.

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