

HAWAII ARCHITECT

November 1993



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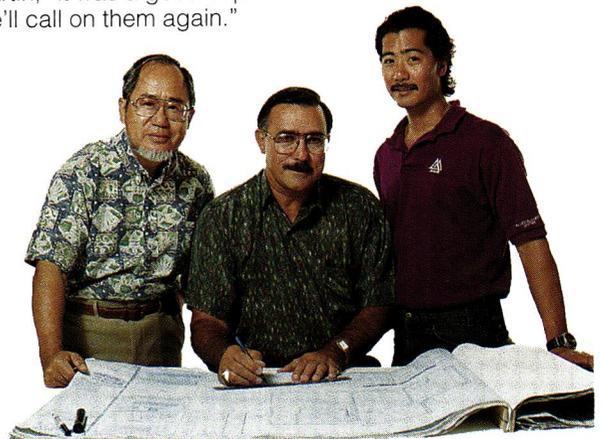
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Architect Dennis Lee, Continental Hawaii Manager Bill Martin,
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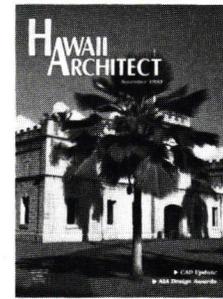
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JOE SOLEM PHOTO

Landscape, land planning and master plan architecture are the focus of this issue of Hawaii Architect.

The cover depicts native Loulu Palms on the Iolani Palace grounds. Landscape design

trends are featured in this issue.

Native and indigenous endemic plants are making a comeback. Many species have been introduced to Hawaii, often at the expense of native plants, many of which are on the verge of vanishing. Landscape professionals report that the demand for native Hawaiian plants in landscape projects is so strong today that growers have increased production.

Why the sudden change? There is a growing awareness in the private and business sectors, particularly architecture and tourism, that the only way to keep Hawaii HAWAII is to preserve and promote Hawaiian culture—and that includes native species.

Native plants, through natural evolution, are well adapted to the climatic and environmental conditions found in Hawaii, including salt spray.

Tom Cannon, AIA, Architects Maui, and AIA Maui president this year participated in the Beacon Maui 1993 Conference on Business and the Environment, in which he moderated a workshop on "Protecting Hawaiian Cultural Resources." He advocates the protection of native species in their natural habitat and their use in landscape projects.

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Acknowledging its existence **Architecture of the Past**

Planning and zoning regulations in Hawaii give due respect to historic buildings which enrich modern life in our society. However, I would like current planning in Hawaii to acknowledge certain buildings which are not over 50 years old, the current litmus test for historic architecture.

World War II interrupted the rich promise of the 1920s and 30s toward the development of a modern Hawaii architecture. After the war, new ideas and new architects flooded this community. These architects introduced the most current architectural thinking. International style architecture came to Hawaii, but was executed in concrete or wood, which remain the prevailing construction materials in the islands.

Some architects attempted to maintain an island connection in their work. The overlooked work of firms such as Merrill Simms & Roehrig included Hawaiian motifs blended with the most modern lines of the 1950s architecture. The firm designed buildings for the Bishop Museum, the Kamehameha Schools and the Blaisdell Center. In a speech I delivered last year, I even advanced the somewhat controversial idea that Republican architecture was better than Democratic architecture.

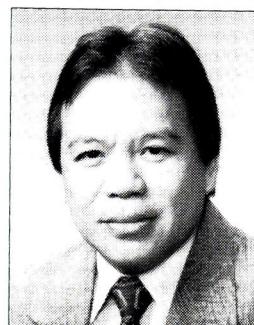
Rampant growth has caused the destruction of the signature work of such architects as Vladimir Ossipof, FAIA. How many of us can remember the elegantly casual McNerny Store in Waikiki, or even the recently demolished McNerny Store at Ala Moana Shopping Center? Built of native

Waianae sandstone and verdigris copper roofing of chevron-seam design, these expressions of modern Hawaii architecture have been swept away.

The problem is not one of contempt, but of ignorance of the existence of this architecture. These buildings are often small-scaled and sitting on very valuable real estate. Often we (architects) and building owners remodel and renovate them beyond recognition. In the name of current fashion, we make significant changes to their design without paying proper respect to the original strong creative concept.

In the ranks of the senior members of the American Institute of Architects are creators of the significant architecture of yesteryear. Our community needs to establish a program of recognition for these modern works of Hawaii architecture.

Perhaps it is too drastic a step to protect these structures through restrictive regulations and historic registers. However, the simple act of identifying and publicizing the existence of these buildings can aid in their preservation. We may lose them unintentionally, out of ignorance rather than through intentional acts of wanton destruction.



Daniel G. Chun

♦♦ Daniel G. Chun, AIA, is president, The Hawaii State Council/AIA.

A continuing evolution
Design Tools

by
**Douglas R.
Cochran
& Kyle H.
Hamada**

In school we were taught a design process that for the most part depended upon manual output for the communication of ideas. Media output by hand, such as pencils for sketching, markers and brushes for color rendering, parallel bars and T-squares for straight lines, were common to design development.

We used these tools to learn how to communicate to ourselves what proposed buildings should look like. Until now, these were the tools architects had used for generations.

Within the last 10 years, CAD has been in the mainstream of architecture. It is a development that has mainly been used at the tail end of the design process, known commonly as "production." An example of this occurrence can be seen in the common practice of a designer or project architect sketching a detail or another architectural graphic image, and then assigning the sketch to a CAD operator. All young architects are familiar with this scenario, and, unfortunately, they remain "pigeon-holed" in this position.

There are many reasons for this situation—

a generation gap of computer-illiterate architects, the cumbersome process of transferring graphic ideas directly from brain to computer, the adjustment of the computer screen as opposed to a larger drafting board. As with any new development, it takes a giant leap of faith to switch from traditional methods to new technology. Once this leap is made, CAD can be fully integrated within the entire design process.

THERE IS NO DOUBT THAT the pencil remains the fastest tool for documenting an idea. A pencil becomes an immediate extension of our thought process. So why use CAD in the schematic stages of design? There are several reasons: **1)** by developing an idea in three dimensions, drawings in two dimensions—elevations, plans and sections—can be developed instantaneously; **2)** a project initiated in three dimensions becomes the most easily understood method of communication; and **3)** the development of software which allows us to explore an idea in the fourth dimension, specifically, an animated path through a proposed project.

A computer wire frame model can be extruded easily from 2D production drawings. This CAD model can then be viewed from any conceivable perspective for a quick design analysis.

For presentation, this model can be exported to various rendering programs, such as 3D Studio, to add color, lights and shadow.

ACTUAL FINISH MATERIALS, such as tile, marble and wood, can be scanned and applied as texture maps to buildings for photo-realistic images. For a "softer" look, these images can be exported to a paint program like Adobe Photoshop that can be processed to simulate an oil painting, charcoal sketch or even Van Gogh's brush stroke. Though all these methods can be accomplished by hand, the computer provides the extra capability of animation. Walk-

Structure created using 3D Studio and AutoCAD





Interior perspective of a Karaoke bar done in house using 3D Studio and AutoCAD.
DOUGLAS COCHRAN RENDERINGS

throughs, fly-bys and morphing are functions that can be effectively produced by computer.

The cost of CAD workstations is steadily declining, and the capabilities are accelerating into new realms. Virtual reality is becoming reality. It is one of the next logical extensions of today's technology. So what does this mean to us? Imagine, in the not-to-distant future, designing "within" a space. Imagine actually moving elements such as doors and windows in this space and having the computer automatically update plans, elevations and section drawings. The possibilities are bound only by one's imagination.

CAD IS A REFLECTION of the post-industrial technology/information revolution we are experiencing now.

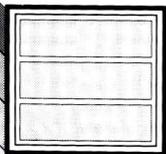
Success at the risk of becoming a slave to technology depends on the ability to adapt and exploit succeeding developments. There is no doubt CAD will play an even greater role in our future.

Architectural companies must realize that CAD advancement works in harmony with the evolution of architecture. The proper balance of traditional methods and new technology will form the basis of a modern architectural office. We need to ask ourselves what role we want CAD to play in our future—by doing so we can control our destiny so that technology will not control or repel us.

◆ Douglas R. Cochran is CAD manager and Kyle H. Hamada, intern architect, AM Partners, Inc.

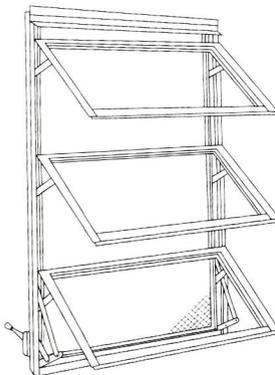
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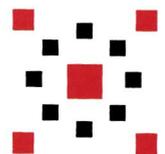
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Selecting native Hawaiian plants Landscape Design Trends

by
**Stan
Duncan**

The use of native plants in landscaping has become increasingly popular with landscape architects, horticulturists and homeowners throughout the country over the past decade. In Hawaii, the desire by local landscape architects and nursery trade members to use native plants

in the design of existing and created Hawaiian landscapes is no different. At PBR Hawaii, we have seen increasing interest by developers and state/county governments in using native Hawaiian plants on public and private projects.

In fact, a state law (Act 73) was adopted this year recommending greater use of native Hawaiian plants on public projects such as schools, parks and public buildings. To quote the act, "Native Hawaiian culture, to a significant degree, is intertwined and dependent on certain indigenous plants, many of which have unique scientific, medicinal, educational, environmental and economic value." Landscaping with

native Hawaiian plants is an effective way to preserve these values and increase awareness and importance of Hawaiian flora.

In addition, there are practical reasons for specifying native plants. Most native plants require less water, less fertilizer, less maintenance and can tolerate Hawaii's hot/dry temperatures.

NATIVE PLANTS ARE DEFINED as arriving in Hawaii without the aid of people, by ocean waves, wind and birds. They are either indigenous or endemic to Hawaii. Endemic plants, such as the Silverwood Loulu Palm, Koa, Ohia Lehua and Wiliwili trees, can only be found in Hawaii and have adopted unique and distinctive characteristics. Indigenous plants are found naturally in Hawaii as well as other Pacific Island locations. Commonly seen indigenous plants that thrive locally include the Coconut Palm, Hala, Hau and Ilima.

Although Hawaiian native plants are not appropriate in every location, they can be used

very effectively in landscaping. For example, at Lanikuhonua, PBR's landscape master plan for the seven-acre Estate of James Campbell's coastal parcel specified a traditional Hawaiian landscape setting with tall coconuts, a large lawn area and beautiful ocean views; the estate is often used by several Hawaiian civic organizations. Several native plants, including Ilima, Hala Pa'uo hiiaki, Hinahina and Pohuehue (the beach morning glory) were planted on the grounds with good success.

At the Makalei Hawaii Golf Course in south Kona (for-

The Ama'u - *Sadleria cyatheoides* - is a native Hawaiian fern with a trunk that can attain a height of 5 feet. It is found in rain forests and wet mountain slopes as well as in dry, rocky gulches.



The Rock's Kauai Hibiscus - *Hibiscus rockii*. A native to the island of Kauai, this hibiscus is easily and rapidly produced from cuttings, likes the sun and is salt tolerant.



The Ko'o loa 'ula - *Abutilon menziesii* - ranging from 3 to 6 feet in height, is related to the Hibiscus and Ilima family.



Hinahina-*Heliotropium anomalum* is a low growing ground cover that can be used along banks or as a border.

merly Huehue Ranch lands), cattle had eaten many of the native species found at the 1,500- to 2,000-foot elevation. The owner was interested in re-establishing the native dry land forest, so PBR specified Koa, Ohia, Kauila, Soapberry, Iliahi and Mamane to be planted along the edges of the fairways.

ANOTHER IDEAL PLACE native plants were incorporated was on the Iolani Palace grounds. The Friends of Iolani Palace, which manages this historical and cultural resource, approved of the Loulu Palms (*Pritchardia hillebrandii*) to grace the driveway in front of the palace, and for Green Ti plants and Palapalai fern to be used around the royal burial mound area on the palace grounds.

Native plant growers and horticulturists in Hawaii have been making significant strides toward learn-

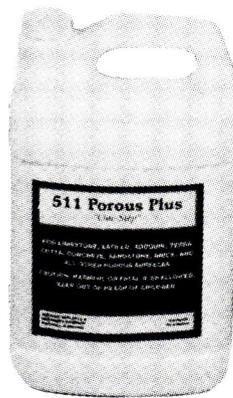
ing more about propagation of native plants and how to deal with the maintenance aspects of growing them. Their hard work has paid off and has resulted in native plants being more readily available than ever before, making it easier for landscape architects to specify on

projects.

Native plants are not for all gardens, but when used as part of a Hawaiian theme, can beautify and enhance every project.

✦ Stan Duncan, ASLA, is principal, PBR Hawaii.

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by
**Teresa P.
Davidson**

While computer technology contributes to high office productivity and efficiency, it also adds another layer of complexity to the already stressed architecture profession. Architects today must keep abreast of a multitude of new construction methods, materials, regulations, building codes, ADA guidelines, conservation/environmental issues, IRS regulations and cope with an ever-changing computer technology while at the same time remain competitive in a sluggish economy.

How can architects keep up with computerization when even as they train for software upgrades, new and more powerful versions are introduced?

SERVICE BUREAUS HAVE responded to this challenge and are making significant inroads in the computer market and quickly gaining widespread reputation as skilled consultants, guiding architects in the selection of hardware and software systems and providing in-house services.

Many of these consultants have architectural or engineering backgrounds and constantly keep on the lookout for computer tech-

nologies with potential design applications. Today, service bureaus are playing a major role in all phases of design and construction.

Service bureaus range in size from one-person offices providing drafting services to sophisticated team-oriented businesses offering consultation, highly advanced computer graphics, training, technical support, supplies, turnkey computer systems and presentation-quality output products.

THE PRIMARY PURPOSE of service bureaus is to provide computer support for their clients. They are specialized because they are totally committed to the products they have elected to carry as dealers and occasionally as developers. Besides providing services and advice to the profession, consultants must also have a vision of promising products in which to invest time and money coupled with a thorough understanding of the architectural market, its



Pros

- Investing in equipment, training & skilled personnel is not required.
- Access to latest specialized hardware & software.
- Opportunity to test equipment & software packages before placing a purchase order.
- Justifying billing clients for CAD time & output is avoided.
- Free architects from demanding computer tasks.

Cons

- Firms must learn to manage and budget consulting resources.
- Consultants' rates vary from \$50 to \$150 per hour; deliverables from a few dollars to tens of thousands of dollars for animated architectural walk-throughs.
- Willingness on the part of design firms to dedicate some time for training and trial-error sessions.
- Need for a CAD-proficient architect in house to lead the process.

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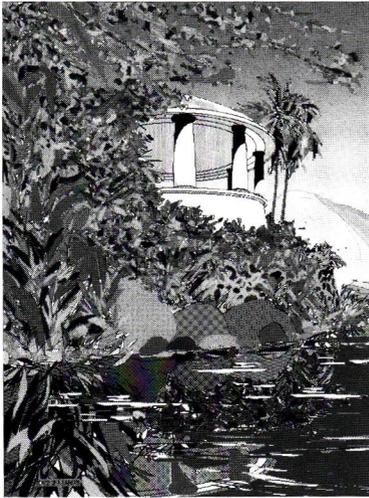
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trends and client needs. They must also have the desire and initiative to generate creative solutions and design alternatives.

ESTABLISHING A TRUSTING relationship with consultants is particularly important. As clients, we have to be comfortable with their

level of expertise and support. Consultants must be willing to guide us toward the efficient utilization of in-house resources before their billing clock starts ticking. Normally, consultants are eager to invest free time if they know that we are not just "picking their brains" or shopping for the lowest quote.

Because of current economic conditions, the initial impulse may be to assume support provided by service bureaus is superfluous and extravagant. The positive impact of service

bureaus on our profession, however, outweighs the drawbacks.

♦ Teresa P. Davidson, AIA, is an associate and CAD manager, Group 70, International.

CAD Meeting Set

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Kapolei

A Hawaiian garden city

by
Francis
S. Oda

When I was a kid growing up in the 1950s in Kalihi-Palama, the world extended mauka to Kuakini where I was born, ewa to Tamashiro Market, toward Chinatown where Vernon's father had Aala Pawn Shop and makai to the Dole Cannery where we all worked during the summer. HRT trolleys, tied to overhead lines, rumbled past our home and every evening Mr. and Mrs. Watanabe set up their saimin stand under an extended canopy by the taxi stand. The aroma of barbecue on their hibachi was the announcement of dusk.

Today, I can calculate that Burger King's drive-thru window is where my brothers' and my bedrooms used to be. Across King, where Warren Higa used to live, is Kukui Gardens. Mr. and Mrs. Watanabe, who were ancient then, of

course, are gone and little remains of the shops, dry goods store and corner market which once anchored the neighborhood. Aala Pawn Shop, which allowed Vernon's father to send his son to Harvard Business School, is now a memory.

THESE MEMORIES TIED to relationships of individuals to families, to place, businesses and institutions are somewhat troublesome, for they suggest what has been missing from the lifestyle of urban Honolulu. In the ensuing decades since the days of my youth, urban renewal, strip development, low-cost housing projects, sub-urbanization and a plethora of "good" development ideas have gutted the quality of urban living. It was only in the 80s that things began to reverse.

The thoughtful visions of early social commentators such as Lois Mumford and Jane Jacobs were dynamically updated and applied



Mixed use district planned for the city of Kapolei stresses the pedestrian experience.

by architects and planners such as Andres Duany, Elizabeth Plater-Zyberk and Peter Calthorpe. A new/old vision of communities emerged that harked back to issues of relationships, communities, work and recreation. Fortunately, the planning for the City of Kapolei emerged in this context.

THE DESIGN OF A NEW CITY rather than a town or village has few precedents in the United States. Reston, Columbia and other new towns are largely satellite communities with town centers. They did show, however, an alternative to standard suburbs. Kapolei had a higher ambition. It was to be a *city*, not a *village* like Mililani or a town like Waipahu. The big question was, "What kind of city?" Usually, cities emerge at trading crossroads, at harbors or as governmental centers, and have built-in and evolved characteristics. A new city planted in sugar land needs a more compelling reason for being than "a second urban center."

After casting about elsewhere for models, we realized that Kapolei needed to be a "Hawaiian" city—with the benefits of neighbor island living in terms of interpersonal relationships, recreational opportunities and beautiful settings, and with the economic, cultural and educational options of Honolulu.

A rural setting adjacent to a destination resort (Ko'Oolina), historic plan-

tation town (Waipahu), beautiful beaches, an industrial park (Campbell) and convenient golf courses would describe a setting on Maui. However, immediate access to Honolulu businesses, the state government, Honolulu airport, a deep draft harbor, UH-Manoa and certain private and public schools exists only on Oahu.

KAPOLEI'S BIRTHRIGHT IS to emerge as a *Hawaiian Garden City* where kids can have saimin and shave ice at a neighbor's shop even as their parents enjoy their cappuccino. Its design will encourage fixed neighborhoods with a mixing of uses as in older cities. People will be able to walk or bike to work via extensive pedestrian malls, paths and bikeways—all this in a garden setting with buildings mandated to create human-scaled environments with forms and details linked to Hawaii's rich multi-cultural architectural heritage.

The city of Kapolei forms around Wai Aniani (the name of Hawaii's first artesian well, drilled by James Campbell)—a pedestrian "main street" stretching from a large urban park to a civic center. Imagine a fully-landscaped King Street between the Capitol district and River Street, *but* without cars, fully landscaped with water features, sidewalk cafes, store fronts, offices, etc. On the park side is "Old Town," (much like Chinatown), where

low-rise buildings in older styles will house Vietnamese restaurants, boutiques, art galleries and a few offices.

Running through the middle of "New Town," the high-rise center of the city, Wai Aniani terminates at the civic center amid city and state structures in a master-planned setting. Bordering the "New Town" are the mid-rise and mixed-use commercial/residential neighborhoods of the city.

ALL BUILDINGS MUST COMPLY with strict design guidelines and a review process, to create a coherent urban form tied to our history, consistently civil and creatively varied. For example, all Kapolei buildings will have sloped roofs of a prescribed range of materials and colors.

The Urban Design Guidelines were approved and adopted by the city and received an Honor Award. Nearing completion are a shopping center, the Campbell Estate buildings and the Kapolei Professional Building. Upcoming are a Bank of Hawaii office and service center, the largest multiplex movie/entertainment center in Hawaii, a major regional library, a police facility and many other projects related to health, retail and business.

In the next decade, the City of Kapolei will emerge as more than a second urban center. I hope that the city will be a true home for many of us.

♦♦ Francis S. Oda, AIA, ACIP, is chair/principal, Group 70 International.

15

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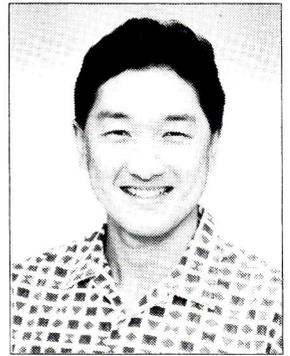
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- West Oahu Current



Selecting the right system

Electronic Tools

by
Lawrence
Ho

Most architects today rely on computers in their work. During tough economic times, it is more important than ever to get the most return from computer investments by implementing and fine-tuning these electronic tools. One of the most basic decisions to be made when implementing an office computer system is the choice of operating system. Unless an absolutely compelling hardware or software issue requires use of more complex systems, such as UNIX, DOS/Windows is much simpler to implement.

The use of individual software elements such as word processors, spreadsheets, etc. results in greater efficiency and productivity, but a combination of software packages on a network results in synergy, where the whole is greater than the sum of the parts. The advantages of a network relative to sharing data and other resources such as printers, plotters and scanners are self-evident and well proven. If you have more than two or three computers, network them!

ONE OF THE BEST WAYS to leverage investment in a network is to implement an electronic mail system. E-mail software is the most utilized network component at Kober/Hanssen/Mitchell Architects. The use of E-mail increased the efficiency of intra-office communication.

Wordperfect Office is a solid office automation package that provides a good E-mail component along with desktop utilities such as personal and group schedulers, calculator, file manager and menu system used for launching other programs.

As for networks, the Ethernet network is a good value. The technology is mature, resulting in reliability and good performance at a relatively low price. The Allied Telesis 1500-BT ethernet network adapter for 16 bit AT-bus machines is a great deal at \$99, with a lifetime warranty. A single 15-BT comes with two types of

connectors, allowing it to be used with either unshielded twister pair (UTP) or thin coaxial cabling.

CURRENTLY, THE BEST DEALS around for CADD workstations are mail-order 486-66 PCs. A typical setup (suitable to run AutoCAD r.12) with 17-inch high-resolution, low-emission color monitor, 450 Mb hard drive, 16 Mb of RAM, CD-ROM drive, Ethernet adapter, mouse and office automation software runs about \$4,200. A major problem with mail-order shopping, however, is that the high demand for inexpensive, high-performance PCs, has created manufacturing backlogs. Waits of several weeks are not uncommon. Manufacturing backlogs usually translate into lax quality control, so component reliability is not what it should be and components often have to be returned.

Waiting for CADD plots? Look at Hewlett-Packard's DesignJet plotter. The E-size color version of this bubblejet plotter costs about \$9,000. Plots on mylar or color plots do require special bubblejet media; monochrome black plots can be plotted on standard bond or vellum.

THE MEDIUM FOR COLOR plots is non-translucent, making the color plot non-reproducible, except by color photocopying.

Get the most out of your hardware, but keep in mind that desktop computers are pretty much obsolete after three years, regardless of IRS rules. Stay current with new developments in the computer industry by attending AEC Systems, a yearly convention that brings together vendors and users of computers in the architectural, engineering and construction fields. Periodicals such as *Infoworld* and *BYTE* are good sources for industry trends and technical product information.

♦ Lawrence Ho, AIA, is director of computer services at Kober/Hanssen/Mitchell Architects. A Honolulu native, he has over 12 years of experience in computer applications and hardware ranging from minicomputers to desktop systems.



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Promoting material exchange

HIMEX

by
Paul
Sanders

No one knows the exact locations for sure, but treasures are buried deep in landfills throughout the Hawaiian Islands. Before scheduling a "scavenger" hunt to the nearest landfill and staking a claim, stop, there is a better way. These treasures can be yours for the asking, courtesy of the

state Department of Health.

The Hawaii Materials Exchange (HIMEX) is a new program sponsored by the Department of Health, Maui County and the Maui Recycling Group. Its mission is to divert valuable resources from the waste stream.

"OUR LANDFILL FACILITIES are filling in at a disconcerting speed," said Roger Harte, HIMEX director. "We are running ahead of projections in this area. The process must be slowed down or we will be faced with having to develop new landfill sites to keep up with runaway demand. At the current rate, Oahu's landfill capacity will be exhausted within 10 years, and taxpayers will be asked to shoulder the cost of developing new sites."

In many instances, items buried in landfills—trash to some, but treasures to others—are recyclable or reusable. It is just a matter of introducing those who have items for disposal and those who could use them.

HARTE SAID HIMEX is in the business of gathering data from businesses and individu-

als with excess or unwanted materials and then linking them with businesses or individuals who can use these materials. "By creating this link and promoting material exchanges, HIMEX preserves the environment and saves businesses money," explains Harte. "HIMEX provides a money-saving alternative to waste disposal."

Harte indicated the materials exchange program is not unique to Hawaii. Successful programs are in operation throughout the U.S. mainland, Canada and Europe. HIMEX is a member, along with more than 31 other exchanges, of the National Material Exchange Network (NMEN).

In 1992, NMEN members facilitated trades with a total value of \$28 million.

THE PROGRAM IS AVAILABLE to anyone in Hawaii, the Pacific or North America, including industry, businesses, nonprofit groups, individuals, church groups, community groups and military facilities—and it is free.

Harte pointed out, however, that HIMEX acts strictly as a matchmaker. Once a match is made, HIMEX drops out of the picture; negotiations and logistics are up to the matched parties.

THE QUESTION OF SUPPLY and demand can come about in the most unusual ways. For example, a Maui hotel engineer recently discovered 8 gallons of aqueous ammonia in the hotel storeroom. No record of why or how the material got there was available. The hotel had no use for the material and the cost to safely and legally dispose of the material—via a licensed waste disposal company—was estimated at \$1,000. Fortunately, this engineer knew this material was used by a Maui agricultural company. A phone call was made, a pickup was dispatched, the hotel saved \$1,000 and the agricultural company acquired the material at no cost. And, more importantly, the potential environmental degradation via "illegal dumping" in a storm drain, gulch or roadside was avoided.

A Match Made in HIMEX

HIMEX publishes a catalog of available and wanted materials in 17 major classifications. The catalog is free. To take full advantage of the program, as a provider or recipient of materials, contact HIMEX at 586-8143 (Oahu); 667-7744 (Maui); (800) GOV-4644, when prompted, dial extension 6-8143; fax 667-7744 (Maui).

Those who have PCs with modem can access a computer database directly via toll free modem line, 24 hours a day, and either search for materials or add to the database. The modem line number is (800) 858-6625 (ANSI, 8, 1, N).

A solar-powered fan

Cyclone

Heat buildup in attics or open beam ceilings can make a home downright uncomfortable on sunny Hawaii days or on days when the cooling trades are on furlough.

Skylights of Hawaii has added to its large inventory of cooling devices a vent system that keeps heat buildup in check and is gentle on the pocket-book.

Cyclone is a solar powered turbo fan utilizing the latest in photovoltaic and solar panel technology.

Solar panels convert sun light into electrical energy to drive the Cyclone's 12-Volt fan motor.

The unit is capable of moving air at a rate between 600 and 800 CMF (cubic feet per minute). One unit can ventilate efficiently approximately 1,000 square feet of attic space. The roof-mount fan is "whisper" quiet and is designed to operate in sunny or cloudy conditions.

Rod Brewer, marketing manager at Skylights of Hawaii, explained that with attic temperatures reaching 140°F during the summer months, "the air expands, creating a pressure that, if not ventilated will be forced down into living quarters." Consistently high attic temperatures will shorten the life of roofing materials.

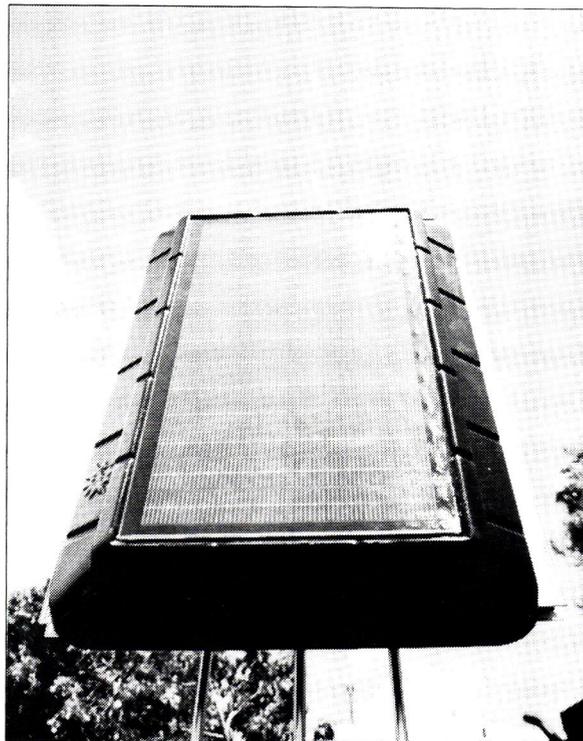
The fans are also used in open beam/cathedral ceiling homes, keeping interiors cool and comfortable.

In contrast with conventional fan installations, solar fans do not require electrical installation and eliminate recurring monthly utility operating costs, estimated at \$12-\$15 per month.

And the system qualifies for the

state's 35 percent energy tax credit (Form N-157, Credit for Energy Conservation) and is backed by a three-year warranty.

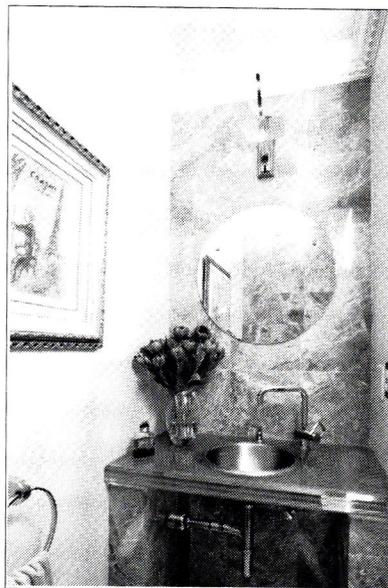
Lightweight solar-powered fan can lower interior temperatures in homes and save energy costs.



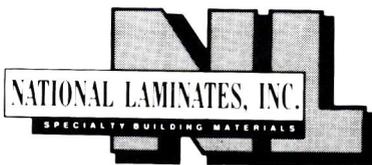
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- ♦ **Merit Winner:** Danelle Christie's at Outrigger Waikiki
Architect/Designer: AM Partners Inc.
Product: CUBICON™ for false columns



Merit Winner: Hawaii Kai Townhouse/Powder Room
Designer: Colgan Associates
Product: Wood Mouldings by Ornamental Mouldings Ltd.



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Rewarding excellence Renaissance Competition

Excellence in design and construction of residential and commercial remodeling projects was recognized at the 8th annual BIA Hawaii Renaissance competition co-sponsored by the Building Industry Association of Hawaii (BIA), Bank of America and Honolulu Magazine.

The overall winner was Armstrong Builders' "Shoji House" remodel entered in the Major Residential Remodeling category. The Maunalani Heights home also received a Grand Award. Architect was Jeffrey Nishi & Associates.

The Imanaka Residence kitchen

remodel by Kitchen Concepts Plus won a Grand Award and the Carl Reppun Award—architect: Fred N. Sutter & Associates, Inc.

Other Grand Award winners included Kaka'ako Waterfront Park entered by Miyabara Associates in the Commercial Landscape Remodeling category; Louis Vuitton Hawaii entered by KOP Hawaii, Architects, in the Historic Remodeling category; and Union Mill Plantation Manager's Home entered in the Residential Remodeling category, designed by architect Lindsay Shives & Associates.

Merit Award winners were Antique

Reproduction China Cabinet entered by Telos Construction in the Details category; Centre Court Restaurant entered by AM Partners, Inc., in the Hotel & Restaurant category; Duc's Bistro entered by Kelso Architects in the Hotel Restaurant category; Hale Koa Hotel Lu'au and Pool Facility entered by Belt Collins & Associates in the Landscape Remodeling category—architects: Kauahikaua & Chun; The Ron Jeffrey Residence, entered by Builder Design Build Inc. in the Major Residential Remodeling category—architect: Takeo Matsu-moto Associates; Mid Pacific Institute, Atherton House entered by architect Murayama, Kotake, Nunokawa & Associates; Nakata Residence entered by Studio Becker Kitchens in the Kitchen Remodeling category; Offices for Chee & Yamasaki entered by architect & designer W. H. T. Leong & Associates Architects in the Commercial category; and Anne Smith Condo entered by builder and designer Hallmark Construction in the Bath Remodeling category.

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Francis L. Camacho, Architecture Plus, Inc.; **Thomas A. Schmidt**, Sam Chang Architect & Associates; **Mark S. Okikawa**, Bryce E. Uyehara, AIA, Inc.; **Francis Howarth**, Geoffrey Paterson & Associates, Inc.; and **Jeff Foster**, Sutton Candia Partners.

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Meeting Councilmembers

Sharing design concerns



Kurt Mitchell, AIA, left, goes over some ideas with Councilmember Steve Holmes.

AIA Honolulu president Kurt Mitchell, AIA, at the special Sept. 23 meeting of the Environment committee, called for expanding the role of architects on issues affecting the city.

The noon meeting, held at the AIA headquarters, involved city council

members and chairs of various AIA committees.

Mitchell stressed that architects "want to be proactive and get involved early in processes before they become issues," and urged councilmembers "to get architects involved."

Following presentations by AIA committee chairs describing their participation in current civic issues, City Council Chair Gary Gill; Council-

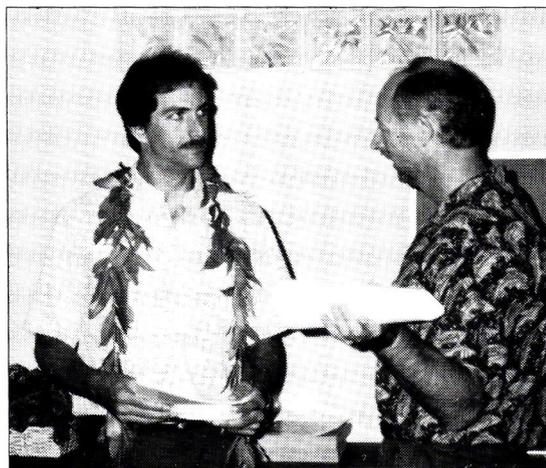
member Steve Holmes; Frank Streed, senior advisor to Councilmember Arnold Morgado; and Ron Boyer, senior advisor to Councilmember John Henry Felix, briefed attendees on planning and

built environment issues in which architects could play vital roles.

Gill urged committees to bring their thoughts and concerns to the council's attention. "As some of you know, I am easy to reach," said Gill.

Holmes, who is chair of the Public Works Committee, invited architects to come in at the start of legislation development cycles. "I am not well versed in design issues," he said, "and would particularly welcome having architects walking me through the designs and pointing out trade-offs before reaching a decision."

At the close of the meeting, following the question/answer period, Gill, referring to future meetings with the AIA, remarked: "Let's do it again soon!"



Christopher Belknap, AIA, right, chair, Concepts of Sustainability Committee, discusses the work of his committee with City Council Chair Gary Gill.

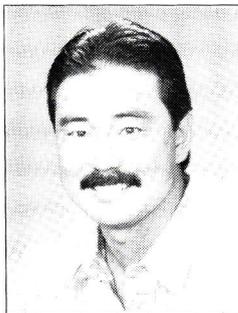
News Briefs

Frampton Joins Firm

Rory Frampton has joined Chris Hart & Partners, a Maui-based landscape architecture and planning firm, as a land-use and environmental planner. Previously, Frampton was senior planner, County of Maui Planning Department.

Sakamoto Promoted

Dennis Sakamoto was appointed vice president and general manager of Tileco, Inc., a concrete block manufacturing plant at Campbell Industrial Park in Kapolei.



Sakamoto, formerly the plant production manager, has been with Tileco for 21 years. He replaces Richard Sakamoto who retired in September.

RCI Sponsors Two Seminars

The Roof Consultants Institute will conduct a two-day seminar Nov. 15 and 16, 8 a.m. to 4:30 p.m. at the Waikiki Terrace Hotel. For registration information, call (800) 828-1902.

The first meeting, titled "Hurricane Watch '93," will feature speakers knowledgeable about Hurricanes Iniki and Andrew.

The second meeting, "The Basics of Roofing," is a day-long seminar covering the history of roofing, basic applied physics of roofing, visual roof survey and inspection, roof problem analysis and non-destructive testing techniques.

UH Schedules Two Lectures

The University of Hawaii School of Architecture has scheduled two in a series of lectures by student recipients of the 1993 Architectural Research Travel Scholarships for Monday, Nov. 15, 7 p.m. in the Art Auditorium. The general public is invited.

In a slide presentation titled "Impressions of Europe," associate professor Leighton Liu will share some of the experiences of those who participated in the School of Architecture's Art and Architecture Study Tour of Western Europe this past summer.

Michael Mortara, winner of the 1993 Johnson/Kelley Architectural Research Travel Scholarship, will talk about "Ancient Landscapes: The Legacy of the Maya," in which he will present a modern-day analysis of Mayan architecture and the methods used to uncover and preserve some of this culture's greatest monuments.

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A matter of coordination Water Features

by
*Lee
Sichter*

An earthquake struck just after midnight as Lisa Williams, AIA, walked out of the job-site trailer after a 12-hour meeting with the project architect and general contractor. By Balinese standards, it was big enough to get people running to the windows to see what was going on. But by San Francisco standards, it was a tea-cup rattler that ended before she could glance at the palms overhead and prepare to dodge falling coconuts. Working in the Pacific and southeast Asia has a way of readjusting people's priorities.

In February, Peter Smulders, a landscape architect with Belt Collins, and Williams had flown to Bali from Singapore.

Smulders had run into a problem at the new Bali Intercontinental Resort under construction just north of Nusa Dua, Bali's principal

visitor destination area. Most of the project's 20 separate water features were already in place—the entry drive pool, dragon head spouts in the ballroom, Balinese bath, children's fun pools, and various swan lagoons and swimming pools. Local artists were carving the five major sculptures around the Balinese bath, having already completed the lotus flower patterns at the lily pool. They were also starting to carve the dragon heads.

THE CONTRACTOR WHO was to design and construct the water feature fountains was never hired and the general contractor had taken over the work. Timing had reached a critical point. The fountain nozzles had to be ordered and the local Balinese artists had to be contracted for the finish work. But without a fountain contractor to coordinate the effort, the fountains had been relegated to a very low priority. One look at the shop drawings indicated that if work was allowed to proceed, fountains would be spewing out garden hose streams for about a month before the piping collapsed and walls and bas-relief art work would have to be ripped out to repair the fountains.

WHEN WATER FEATURES are designed in Honolulu, Williams works with landscape architect and architects from the concept phase to determine the shape and volume of every fountain's spray. This decision dictates the specifications for the connecting piping and mechanical room sizing. Then the appropriate copper or bronze nozzles are selected and construction documents completed. The contractor has a number of suppliers to choose from, each with parts usually in stock at the time the order is received.

But it's not that easy in Bali. A contractor can either try to find a local supplier, risk the delays of ordering the nozzles from the United States or have them custom made in Asia, if a

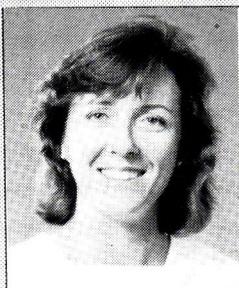
Lisa Williams—A Profile

Lisa Williams, AIA, was trained as an engineer at the University of Kansas and enrolled in law school where she was fulfilling expectations of following in her father's footsteps as a patent attorney.

Because neither engineering nor law held passion for her, she enrolled in the school of architecture.

Her professional breakthrough occurred when, as an intern architect, she joined Aquatecture, a small and obscure San Francisco firm "literally spilling with creativity and artistic delight." And they did nothing but design fountains and water features. Williams had found her niche.

The company, however, dissolved when its principal died. Williams then worked as a subcontractor to Belt Collins and Associates on a project on Kauai and was asked to join their team.



factory can be found to cast them.

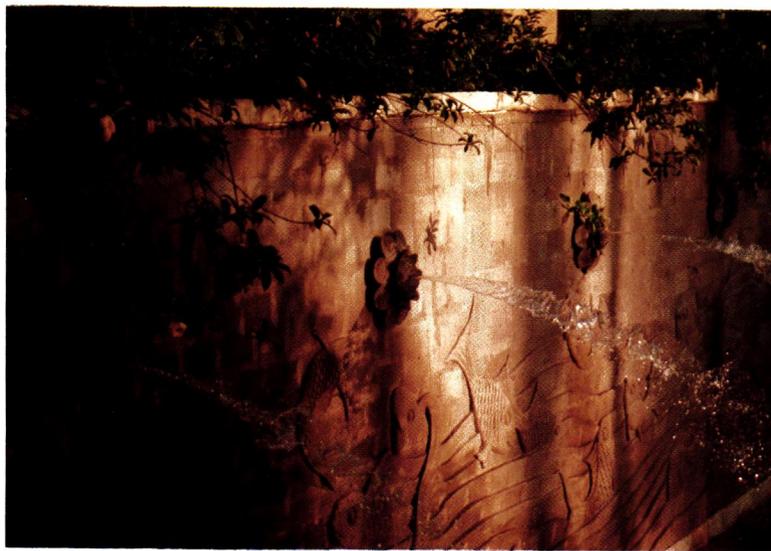
On the job site, the 20 water features translated to over 250 jets that had to be individually specified. Williams needed to determine the aesthetic impact of each feature. Her favorite was a children's fun pool that was to be laid out like a checkerboard. As the children step on each square, they will be sprayed with water from a different direction.

Following a meeting, Williams, the contractor and the architect inspected the 35-acre site to inventory the art work and sculptures already in place.

A TWO-DAY WORK SESSION with the architect and the contractor's mechanical engineer followed the site visit. Williams' role was to coordinate the water feature design and construction with ongoing landscaping and engineering activities. Much of her time was spent sketching how the effects of various features might appear in different areas, and how the nozzles would fit into art work based upon traditional Balinese stories and legends. She had to ensure that the visual effect of each fountain was consistent with the history it recounted.

The Bali Intercontinental Resort project is one example of the problems and issues in water feature design. Topography was not an issue, but it often can be. The artistic use of water is limited by its physical properties; the steeper the site; the more difficult it is to control the speed of flowing water.

Additional consideration must be given to pumping costs when designing features in more severe elevations. The technical side of water feature design requires a strong foundation in both engineering and architecture. Engineering is essential to the function of the feature, but without a sensitivity to aesthetics, the



Lotus fan fountain is one of many water features at the Bali InterContinental Hotel.



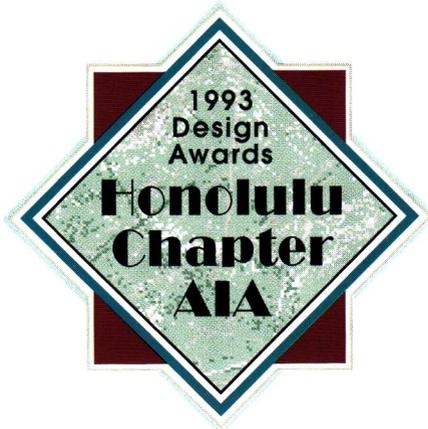
Presidential suite with elaborate pool and spa.

water feature is nothing more than a hole in the ground. A successful design becomes an extension of the environment. The key is to understand the technology and then interpret the design from an architectural perspective rather than a contractor's or civil engineer's point of view.

◆ Lee Sichter is an urban planner at Belt Collins & Associates and a free lance writer.

Bali Resort Opens

President Bapak Soeharto of the Republic of Indonesia on Oct. 4 officially opened the Bali InterContinental Resort at Jimbaran Bay, Bali. The resort, owned by the P.T. Jimbaran Indah Hotel, will be managed by Mark Kissner, former manager of the Sheraton Mirage Resort in Port Douglas, Australia.



Award of Merit

Office, Commercial and Institutional Design

Sam Chang & Associates, Inc.
Honolulu Police Department Headquarters

In 1987, the city of Honolulu selected Sam Chang Architect & Associates, Inc. to design the Honolulu Police Department headquarters building.

The overall project called for a master plan and environmental impact statement for the Transportation Center and City Hall Annex office complex including a 309,000-square-foot annex office tower, a 12-stall express bus terminal, access roads, a 180,000-square-foot police headquarters building and parking for 1250 automobiles.

The Police Department portion of the project consisted of a needs assessment and design allowing for future expansion in the year 2005. The police building was to be 180,000 square feet and include 550 parking stalls and a roof-

top helipad. The needs assessment, however, indicated that area requirements exceeded estimates. However, budget constraints limited gross area to 258,000 square feet.

Because the bus maintenance facility had to remain in operation during the construction phase and the city's desire to continue the Capitol district's park theme, the tower was placed on the Diamond Head side with the remainder of the site being dedicated to underground parking. Essential to the requirement for rapid mauka and makai access was the provision of motor entrances on Hotel and Beretania streets and the construction of two new streets linking King and Beretania. The main public entry is on Beretania Street.

The massing of the building was driven by

**Internal courtyard,
Honolulu Police
Department
Headquarters
building.**



the stacking diagram with the majority of operational areas requiring special security features placed below grade and the public and office functions in the tower.

The challenge was to reconcile the requirements of a technologically sophisticated building with a civic building in the Hawaiian Capitol district.

To counter potential acts of terrorism, the entry lobby was raised to prevent drive-in car bombings and windows were kept small with sills at four feet. Bullet resistive glazing was used in vulnerable areas.

To provide ventilation in case of power failure, operable windows were installed in the tower and an internal courtyard was incorporated for police functions and as a cafeteria extension.

The resulting building has punched openings and small pane glazing which bring a human scale to what could be an overpowering structure. This fenestration and a desire to retain the character of early Hawaiian architecture encouraged the use of off-white walls and pink/buff limestone plinth, copings and window trim. Contrasting dark-green metal win-

dows and the natural clay color of the mission tile roof establish a connection to Honolulu Hale and the past.

Credits:

Owner/Developer:

City and County of Honolulu

Architect:

Sam Chang Architect & Associates, Inc.
in association with

Howard, Needles, Tammen & Bergendoff

Principal in charge:

Sam Chang, AIA

Project architect:

Anthony Wilkins, AIA

General contractor:

Fletcher Pacific Construction Co.

(Headquarters building)

Hawaiian Dredging & Construction Co.

(Parking structure)

Needs assessment & planning:

Ruth & Going, Inc.

Civil engineer:

Engineers Surveyors Hawaii, Inc.

Structural engineer:

Nakamura & Tyau & Associates

Mechanical engineer:

Mechanical Engineers of Hawaii Corp.

Electrical engineer:

ECS, Inc.

Landscaping:

Walters, Kimura, Motoda Associates

Jury's Comments:

"A handsome public building softened by some nice detailing ... a large, complex building with civic presence that tries to relate to the Capitol district beyond."

Public entry on Beretania Street.

FRED LICHT PHOTOS



Blending mainland and Hawaiian styles
Kona Vistas

by
**Douglas
Walker**



Model 3, Kona Vistas subdivision.
ED GROSS PHOTOS

Kitchen/breakfast room, Model 3, Kona Vistas. The entry won Best in Show-Neighbor Islands and first place in single family home category, 1993 BIA Parade of Homes.



The business of doing architecture in Hawaii is a challenging proposition. The climate and environment factors become primary components when designing a successful residence. As a mainland architect, I was conscious of the need to be indigenous in style and form when designing a residential development on the Big Island. I found that architectural expressions of style and form are quite varied within Hawaii's rich mix of cultures and traditions.

The governing factors in selecting a style of architecture involve the tropical climate and environmental differences that fluctuate within the islands. On the Big Island, wide climatic variations exist

within an hour's drive of one another—from the ocean shorelines in Keauhou to Waimea's high country, and from the tropical coffee growing mountain side to the stark lava fields.

WHEN DESIGNING THE residences at Kona Vistas, we carefully addressed the climatic and environmental characteristics, while retaining the freedom to design and incorporate several new stylistic approaches.

This led to the development of

homes with traditional lines, reminiscent of south central United States, which feature brick exteriors. While brick is not widely used in Hawaii, it blends nicely with the environment. It offers warmth and compatibility with other more commonly used materials such as wood siding and stucco. The advantages of having a positive insulative envelope surrounding the building and an attractive exterior appearance offered by brick masonry weighed heavily during the decision process.

To address the climatic factors, wide overhangs and covered lanais were incorporated into the design, providing protection from Kona's direct sunlight. Stainless steel and antique brass lighting and plumbing fixtures throughout the homes were also used in response to the corrosive salt air that tends to cause rust.

WITH HAWAII'S BEAUTIFUL tropical setting, the integration of natural and built environments are one of the key elements to successful overall design in the islands. We combined the brick exteriors and traditional mainland architecture with extensive, indigenous landscaping to provide a harmonious and appropriate environmental setting for an attractive Hawaiian residence.

While addressing the interior design, we were careful to respect the indoor-outdoor relationship of spaces, which is typified with the covered lanai used by many residents as an extension of an indoor living space. Color palettes reflective of Hawaii's ocean, sky, beaches and lush terrain resulted in soft pastels with bright contrasts. Air circulation is provided by ceiling fans in all primary living spaces, and high ceilings give the homes an open, spacious feeling.

Mainland architectural features that also work well in a Hawaiian setting include raised ceilings trimmed in crown molding, traditional raised panel cabinetry throughout, powder baths for guests located near the main entry and living areas, oversized master bath suites with whirlpool tubs, full showers and walk-in closets, and full-size utility rooms with folding and storage areas.

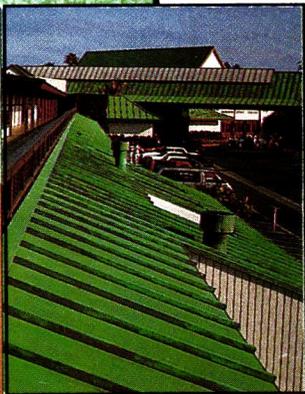
The successful home for Hawaiian living offers sensitivity to the climate and environment while providing creativity and flexibility in style. Add to this the use of appropriate finishes and functional interior spaces, and the result is a strong set of criteria for successful architectural design, Hawaiian style.

◆ Douglas Walker, AIA, is an architect with Corner Stone Builders, Inc., Tulsa, Okla.

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Continental Airlines' new 5,000 sf executive lounge (which more than doubles its original space at Honolulu International Airport) is a case in point.

"We wanted our *President's Club* to be a relaxing, peaceful haven for travelers to unwind in quiet comfort," observes Continental's *Bill Martin*. "And, we wanted the job done as fast as possible to accommodate our clients."

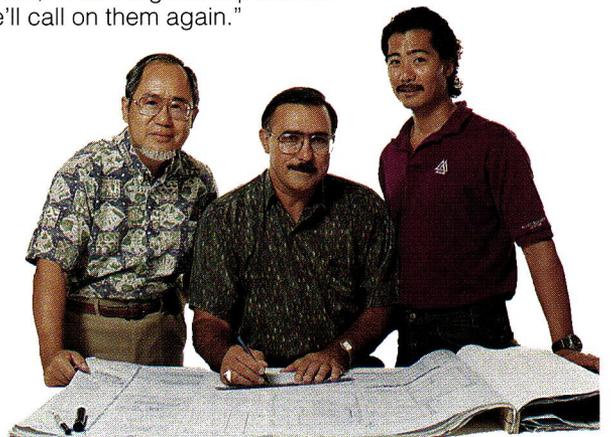
Recalls Project Architect *Dennis Lee*, AIA, of Peter Hsi & Associates: "Both budget and schedule were concerns. Our design response was a living room like setting with kamaaina styling—using subdued lighting, koa wood and natural stone."

Both owner and architect applaud Allied Builders' seasoned contracting skills, sensitivity and "as advertised" spirit of cooperation. "All things considered," concludes Martin, "it was a good experience. We'll call on them again."

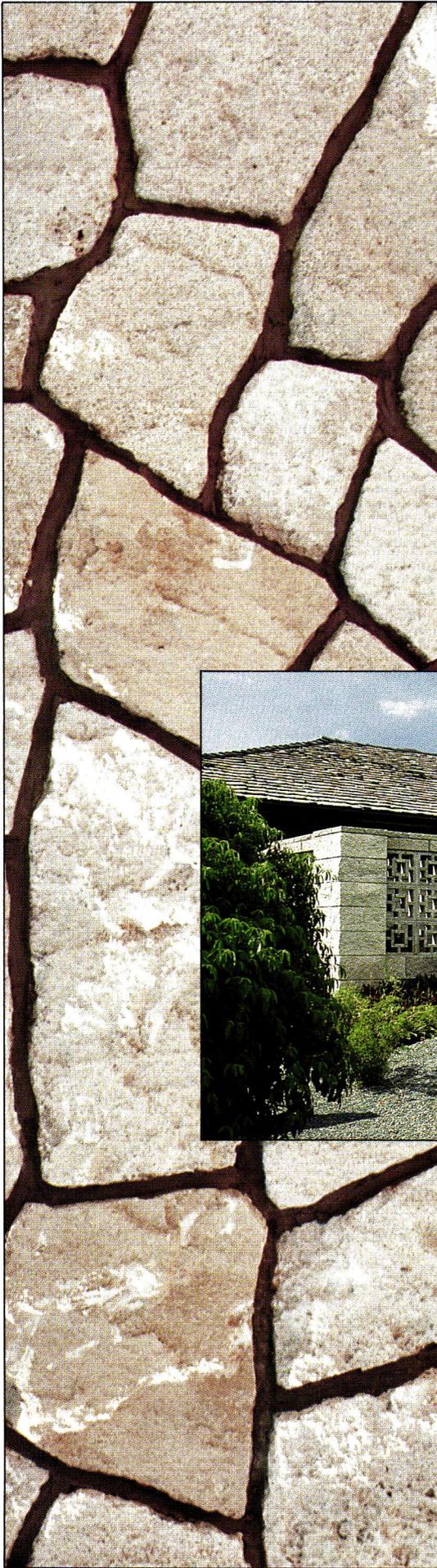


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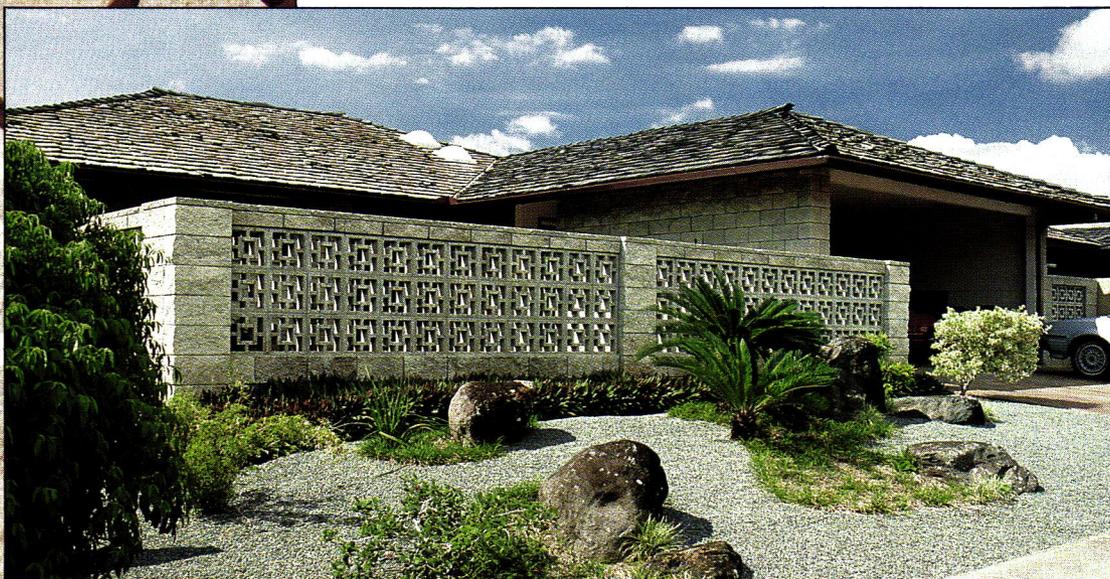
Architect Dennis Lee, Continental Hawaii Manager Bill Martin,
ABS Project Manager Winton Saito



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Seated from left to right are Rick DeLa Cruz, Hawaii Manager; Yvonne Rockwell, Sales Coordinator; Standing (left to right) John Garofoli, Regional Manager; Glen Fujihara, Consultant; and Robert Riggs, President and CEO of Sub-Zero Distributors, Inc.



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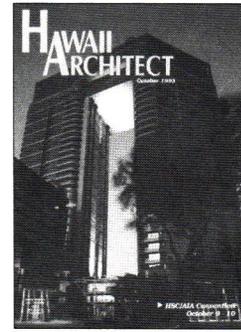
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In this issue ...



Retail/Commercial Development, including high-rise office buildings, is the focus of this issue of Hawaii Architect.

Robert Hale, AIA, president, Architects Hawaii Ltd., designers of the Waikiki Landmark fea-

tured in this issue, the high-rise office market is slow.

Hale reports that although the high-rise office market is lower than the national average, the Honolulu vacancy rate is higher than it has been in some time.

A number of properties in the Kakaako and Kapiolani areas are coming on line in the future; the high-rise office market, however, is affected by suburban development, particularly the second city. In the immediate future, low-rise office buildings will prevail.

The only high-rise building in downtown Honolulu which is close to construction is the controversial First Hawaiian Bank headquarters.

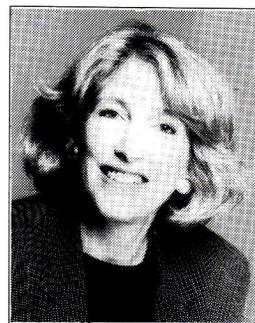
The 1993 Hawaii State Council/AIA Convention will be held the weekend of Oct. 9 and 10 at the Kamehameha Schools. If you have not yet registered for this outstanding event, titled "Survival in the 90s," you are still in time to do so by contacting the AIA office (545-4242) immediately. Among the presenters this year are Susan Maxman, FAIA, 1993 AIA National President; Joseph Esherrick, FAIA, AIA Gold Medalist and many other guests—truly an event architects cannot afford to miss.

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Susan Maxman, FAIA

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Toward a new urban vision Sustainable Design

Today's urban and environmental crises are inter-connected. We cannot solve one without attending to the other, and we cannot achieve sustainable design without recycling the embodied energy of our cities. If we allow our metropolitan areas to die, we will never be able to sustain life on this planet. To me, the overriding challenge facing American architects in the 1990s is the revitalization of our urban centers.

One does not have to travel far to see the blight afflicting so many of our older industrial cities; like my hometown of Philadelphia, these urban environments suffer tremendously today. Faced with the task of feeding and caring for a disproportionate share of our nation's poor and disenfranchised, today's city officials have watched urban tax bases erode as the middle class and wealthy move to the suburbs. Fear and racial discrimination are slowly killing the urban cores that were once centers of culture, diversity, and knowledge. Rather than face such crime, violence and congestion, we have concentrated on building expressways and outer loops to facilitate an easier escape from downtown.

As architects, we know better. We know that it is costly—environmentally, socially, and fiscally—to ignore these urban problems. Architect Harvey Gantt, former mayor of Charlotte, N.C., and a recent Democratic candidate for the United States Senate, told the North Carolina Society of Architects, "We have been too shallow in our urban environment. We have been too timid to vigorously contribute to an improved understanding of what needs to be done to improve the plight of cities. It has been easier and less costly as design professionals to keep quiet about our complicity and naïveté in supporting suburban explosion. Our patrons' inability to see beyond immediate needs and greed has only been exceeded by our own virtual si-

lence." Now, we are faced with the consequences of that silence, a silence that has produced the destruction of urban centers and the disintegration of our open lands and natural environment.

What can we as professionals do to right these wrongs, to enhance—rather than ignore—America's cities? We know how to design commercial centers and public spaces that act as magnets to attract further neighborhood investment. We know how to visualize and plan, in a balanced way, the appropriate use of space. We know how to motivate and inspire. We know how to recycle buildings and find alternative uses for historic structures. And we know how to design the affordable housing cities so desperately need. We architects are the visionaries—if only we choose to be.

It is my contention that for architects to grow in influence and to be truly of service to society, we must join the battle for the survival of our cities. We must lead the way, instead of following behind our former patrons, the developers. We must go beyond a single-project mentality, looking instead at the inter-connectedness of adequate housing, clean water, waste management, transportation and green space in urban areas.

A revealing book written in the late 1960s by the AIA Committee for the Study of the Future of the Profession poses a question that is still worth considering today. "Can the architect transcend the mastery of the construction of single buildings and move on to sharing in the designing of whole environments?" The committee asked this more than a quarter of a century ago. Fortunately, there are now many architects who have indeed transcended the single-building mentality, developing an interdisciplinary approach to the designing, planning and infrastructure of entire cities.

For example, by taking an interdisciplinary approach to urban problems, architect

Jaime Lerner, former mayor of Curitiba, Brazil, did more to enhance his city of one million than any of his predecessors. Lerner offered free mass-transit tokens to Curitiba's citizens as rewards for household recycling, thus encouraging conservation while discouraging the use of automobiles.

To me, one of the most sustainable recent architectural projects in the United States is Oriole Park at Camden Yards in Baltimore. The decision to locate the Orioles' new baseball stadium on recycled land downtown, where Baltimoreans can either walk or take public transportation to the games certainly represents an investment in the future of the city.

Similarly, a decision by the architect-developer team of Morris Architects to convert a downtown Houston warehouse into a prison also promotes the city, while protecting open space around it. The team convinced the city of Houston that it was more economical to recycle an existing structure than to build a new one, as had been originally proposed. The derelict warehouse was an eyesore, but its renovation included refurbishing its facade, creating a visual improvement for the city.

We cannot solve all the problems of the cities alone, but we can join planners, other design professionals, and public officials to effect a change in how and where we build in the future. Based on the notion that the most important building block after the family is the neighborhood, the AIA has taken a strong stand in lobbying for such an urban agenda. We propose assistance for physical, social, and economic improvements focused on neighborhoods in need, with assistance coordinated through neighborhood-based planning. We also propose the establishment of a civilian conservation and construction corps that would train young volunteers to carry out urban forestry, housing renovation and the rebuilding of public works.

The Philadelphia chapter of the AIA has addressed the ongoing disintegration of North Philadelphia, one of the most blighted urban areas in the country. We organized a Regional/Urban Design Assistance Team (R/UDAT) several years ago and called in a team of experts—including architects, city planners, the former mayor of Berkeley, California, and the chief of police of Cincinnati, Ohio,—to lead

the five-day project. Together, these experts represented a cross section of the knowledge and skill required to solve society's most complex problems. The R/UDAT produced a civic action group of North Philadelphia citizens working to take back their neighborhood block by block. Now, two years later, Philadelphia architects are still working with this community.

Architects can make a difference. We can learn to solve problems and envision solutions in a new way. The fundamental principles of an ecologically sustainable architecture must be the basis for all architectural decision-

making, theory, and practice. For architects to regain the stature we once had as a profession, we must seize the opportunity to be outspoken advocates for change in the way we plan, build and preserve our built environment. We are trained to be professional visionaries. Let's not be afraid to dream, to imagine how things should be, rather than remaining complacent and perpetuating the way things are.

♦ Susan Maxman, FAIA, is president, The American Institute of Architects.

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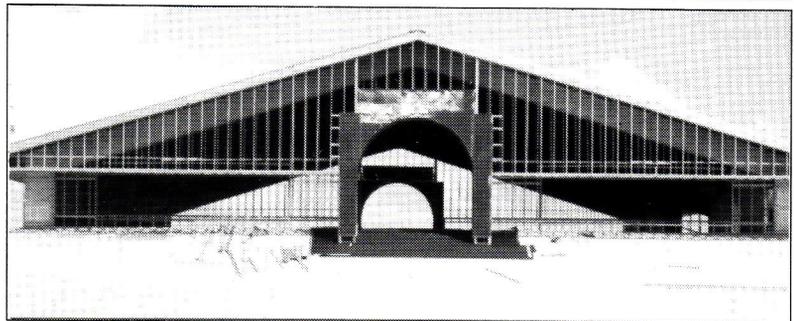
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Water Resources

Controlling nonpoint source pollution

by
Alex
Santiago

The mere mention of Hawaii anywhere in the world brings to mind visions of clear ocean waters, pristine beaches, lush tropical vegetation, gentle breezes, coconut trees, sunshine and water-related activities. Because the Hawaiian islands are in the middle of the Pacific Ocean, water has always played a crucial role in island culture, history, inhabitants, food staples—and in recent times the economy, particularly tourism. Therefore, it is not surprising that water pollution is a particularly sensitive issue.

WATER POLLUTION HAS been increasing at an alarming rate throughout the state. But we now have a mechanism to “freeze” water pollution—and, in time, reverse the damages already done. Water pollution affects all of us—the state, our quality of life and the local economy.

IN JULY, Gov. Waihee signed into law HB 525, a bill intended to curb nonpoint source water pollution in Hawaii. This is, in my opinion, one of the most important measures enacted by the Legislature this past year.

Nonpoint source pollution is pollution from unknown sources such as sediments, urban runoff, nutrients, oil, chemicals and pesticides from farming, industry and the private or public sector, which finds its way through seepage, lava tubes or other means, into streams, rivers, gullies, aquifers, lakes and ultimately—the ocean and beaches.

HB525 empowers the state Department of Health to develop and establish a nonpoint source pollution management and control program with “teeth.” This law gives the DOH the authority to investigate and test actual or potential pollution sources, make recommendations and fine offenders who do not comply with the law.

OFFENDERS MAY BE FINED as much as

\$10,000 per day. In addition, persons obstructing or denying inspection to suspected pollution sources can be fined up to \$5,000 per day.

Money collected from offending entities will go into an environmental response revolving fund that will be used to clean up the environment.

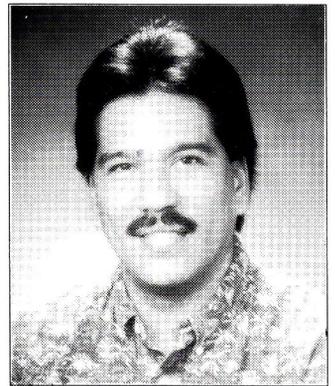
The bill allocates a total of \$120,000 to create two positions within the DOH to develop and maintain an ongoing statewide program to monitor and resolve the growing water pollution problem. Additional funding will be allocated as specific programs are proposed by the DOH.

WITH PASSAGE OF THIS LAW, the state is finally taking the initiative to plan our future by protecting our most valuable resource—water—rather than reacting after pollution has caused irreversible damage to the environment that may take several generations and millions of dollars to cure. Failure to act now may cost the state dearly in a few years, because we will be in violation of federal and EPA standards—resulting in loss of federal funding and penalties that ultimately affect the taxpayers.

The idea for this bill came after discussions I had with Jensen Uchida, a Legislative Reference Bureau analyst and a former classmate of mine at the University of Hawaii.

As the idea matured, “informed” sources were brought in to help with strategy and the wording of the bill.

THE BILL WAS INTRODUCED in the legisla-



ture last year, the second year of my first term in office. It passed, but was vetoed by the governor on technicalities. It was re-submitted this year and subsequently approved.

Yet, last year's rejection was beneficial because it gave us time to consult leaders in industry and agriculture.

In discussions with the Sierra Club, sugar company representatives, the federal agricultural department, unions and many others, we found that almost everyone was concerned about pollution of our vital water resources and pledged their support for programs designed to monitor and control this threat. Also discussed were the use of alternate materials, recycling and planting of native flora and other environmentally sound alternatives.

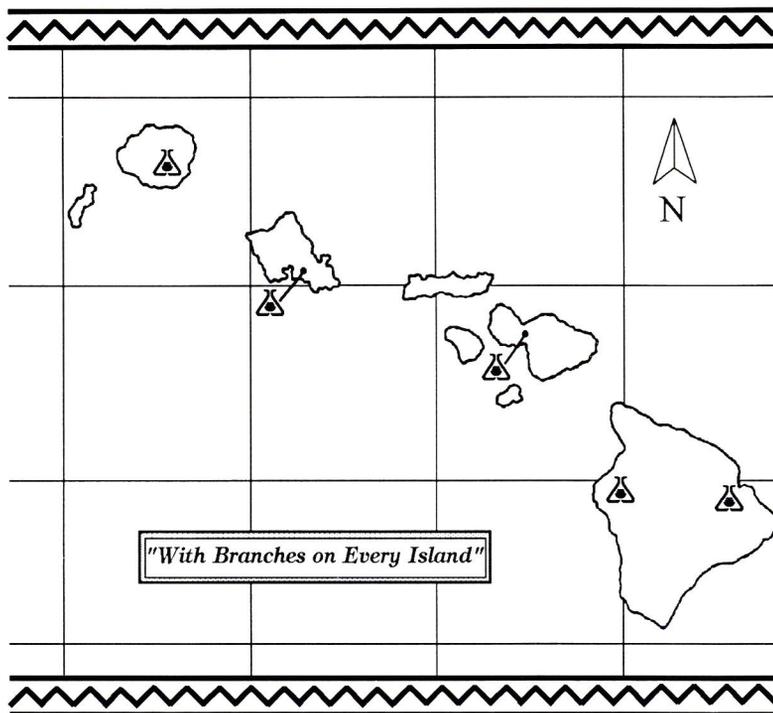
THIS BILL IS A PREVENTIVE measure and an investment in the future of this state. The bill also opens the door for the administration to find out, once and for all, through expert studies and analyses, what goes into our water, where it comes from, and what actions should be initiated. The bill also calls for educating the public through media campaigns and comprehensive awareness programs.

♦ Alex Santiago is a member, state House of Representatives, District 45, which covers the North Shore from Waiialua through Kahuku.

Bill to Protect Water Signed

HB 525, "A Bill for an Act Relating to Water Pollution," was signed into law July 1 by Gov. John Waihee during a special ceremony at the interim state Capitol building in Honolulu.

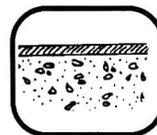
The bill, currently in effect, was written and sponsored by state Rep. Alex Santiago, who was at the time vice-chair of the House Energy and Environmental Protection Committee. Co-sponsoring were state representatives Jackie Young, 51st District (Waimanalo-Kailua), Kenneth Hiraki, 25th District (Kakaako-Ala Moana), and Duke Bainum, 21st District (Waikiki-Ala Wai), chair of the Energy and Environmental Protection committee.



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Reducing exposure to electromagnetic fields Prudent Avoidance

by
Bruce S.
Anderson

In addition to almost everything else, many people are now worried about health hazards associated with power lines, cellular telephones, hair dryers, computer terminals, televisions and other sources of electric and magnetic fields. Articles written on the subject often present contrasting views. Indeed, the information on the subject is inconclusive, in some cases contradictory and certainly controversial.

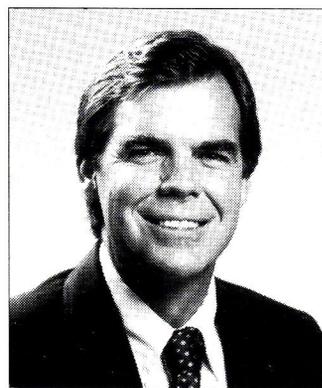
Nevertheless, there is enough substantial information on the subject to enable architects, interior designers and others to offer reasonable advice to clients who may be concerned about health hazards associated with electric and magnetic fields, more commonly called "electromagnetic" fields. There are also some practical steps that can be taken to reduce exposures at a minimal cost.

ELECTRIC AND MAGNETIC fields are inescapable. The human body relies on electric fields to function. The earth itself produces a magnetic field that makes even the highest power transmission lines seem small by comparison. Fields from electrical sources contribute to these natural sources and differ in one respect; that is, electrical power sources produce low-frequency fields that oscillate at 60 cycles per second as the electrical current surges back and forth in wires. Naturally-occurring magnetic fields are relatively constant.

Electric and magnetic fields are all around us, but does a hair dryer or refrigerator pose a real health risk? Typical questions health officials are often asked are: "If I buy the house near the power line, what are the health risks?" "Is the transformer near my house safe?" "I'm pregnant. Will working at my computer terminal hurt me or my baby?" Most experts will answer something like this: "We really don't know, but the risks are probably not as large

relative to the risks we choose to ignore or take for granted."

The data on possible adverse health effects, such as cancer, from exposure to low-frequency electric and magnetic fields are



inconclusive. Some recent studies of human populations suggest a relationship between living near power lines and certain cancers. However, information from these studies is not adequate to determine a level of exposure that may be harmful, and there is no established causal relationship between electric and magnetic fields and cancer or other diseases.

Due to the controversy and the need to address these concerns, the state of Hawaii Department of Health has developed a "prudent avoidance" policy. In short, this means that actions should be considered to reduce exposure when they are practical.

THE STRENGTH OF A MAGNETIC or electric field is directly related to the distance from the source. Exposure studies have demonstrated that in most situations exposure to electric and magnetic fields from household appliances is far greater than power lines. The following are some practical means of reducing exposure:

- If you use an electric blanket or water bed heater, unplug them before sleeping (magnetic fields disappear when the electric current is switched off but electric fields may exist as long as a blanket is plugged in); and
- Do not stand close to sources of EMFs, such as microwave ovens, while in use. Standards are in place to limit microwave emissions; however, the electric power consump-

tion by a microwave oven results in magnetic fields that are high close to the unit. The same is true for other appliances.

MAGNETIC FIELDS FROM video display terminals (VDTs) have been of particular concern because of the length of time workers spend in close proximity to equipment in their homes or work places. To minimize exposure from these devices:

- Sit at arm's length from VDTs (magnetic fields fall off rapidly with distance) and switch (the screen) off when not in use; and

- Locate VDTs in the work place so that work stations are isolated from the fields from neighboring VDTs (fields will penetrate partition walls, but do fall quickly with distance).

The decisions made in implementing a prudent avoidance approach to reducing risk are based on judgment and individual values. These actions can be taken even if the risks are uncertain and even if the safety issues are unresolved. Until the health risks are clearer, it is entirely up to the individual to decide if they wish to take actions that may or may not reduce any potential health risks.

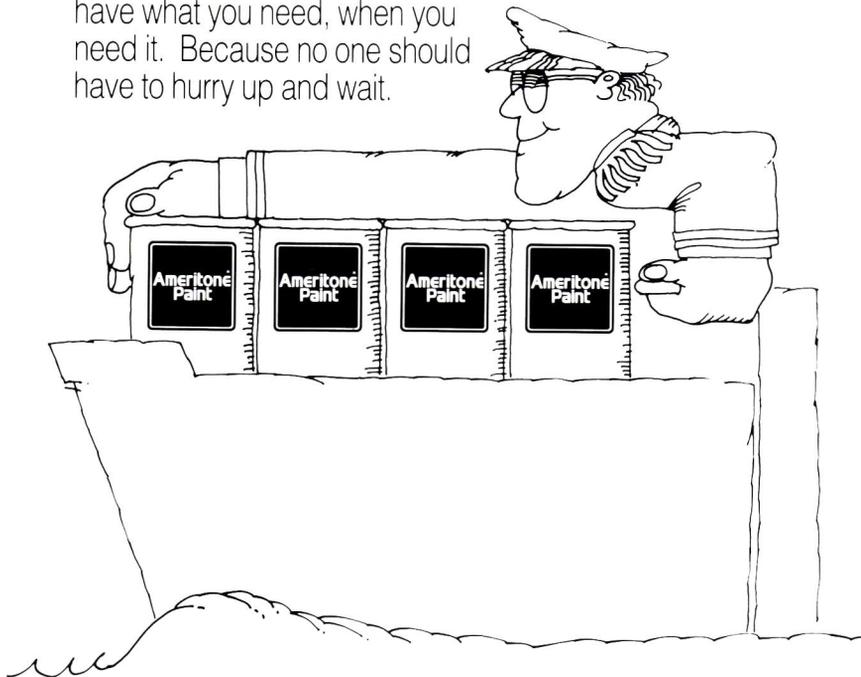
TOO LITTLE IS KNOWN presently to determine where or what rules would provide useful protection. Several states have established standards for electromagnetic fields at the edge of the right of way for power lines. These standards are simply levels intended to keep field levels from going any higher, because of the existing uncertainty about health risks. They have no health risk basis.

Everyone seems to agree that more careful and extensive study of the health effects resulting from exposure to electric and magnetic fields is needed. When there is adequate data to determine what levels, if any, may be harmful, appropriate standards can be established. In the meantime, it is prudent to reduce exposures that can easily be avoided without changing the way we live or spending large amounts of money.

➔ **Bruce S. Anderson, Ph. D.,** is Deputy Director for Environmental Health, State of Hawaii Department of Health.

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Projecting a sense of place and purpose
Building Renewal

by
**James I.
Nishimoto**

Class "A" commercial buildings abound today in downtown Honolulu and along the Kapiolani corridor into Waikiki. These centrally located, high- and mid-rise structures give our island a growing sense of modern grandeur and scale once seen only in the metropolitan centers of the U.S. mainland.

A continuing need still exists locally, however, for the so-called Class "B" structures in downtown Honolulu's fringe areas of commercial activity—from Kakaako to Iwilei and the harbor to Nuuanu. After all, not every small business owner can afford the higher rents commanded at the pricier buildings, while many entrepreneurs want to lease space below the minimums offered by the "As." Like many of us in business, they want an address that is comfortable, safe, attractive and efficient—a facility they can enjoy working in and proudly open to clients and suppliers.

Owners of existing older buildings have major

concerns to be considered here also, primary among them being to protect their assets and continue to turn a profit. Thanks to the rise of sophisticated CADD integrated asset management programs, there has never been a better time for landlords to evaluate aging properties. Among the key considerations are building code requirements, the Americans with Disabilities Act (ADA) guidelines, the ratio of income to expense and life extension of the property.

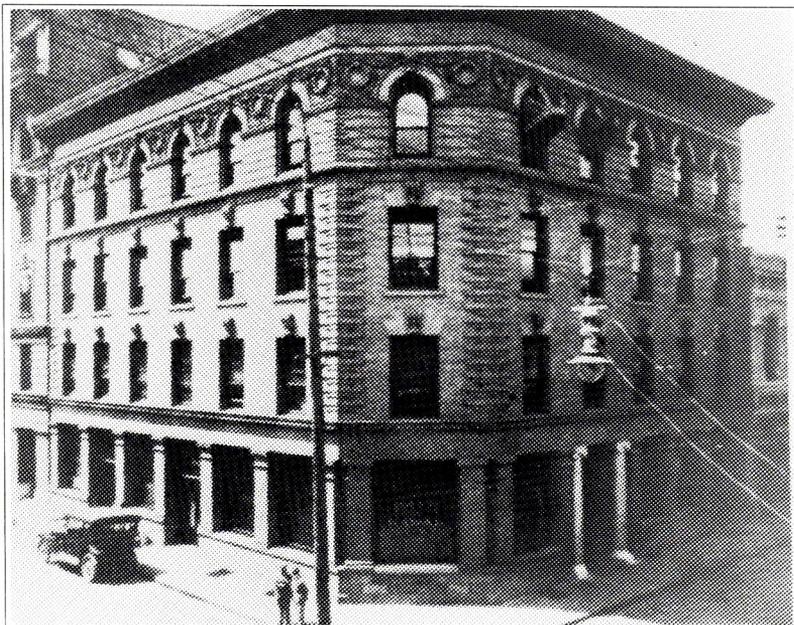
Building owners and prospective tenants benefit by remodeling and restoration work, and as economics today slow down new construction, architects are turning more and more toward design solutions in the "rehab" arena.

A THIRD ELEMENT is also served when older commercial centers are restored and given modern enhancements, and that is the *community* itself. Obviously, there is the visual appeal of improving and enhancing the beauty of these older buildings, but the benefit is actually more tangible than that. You have only to walk through "new" Chinatown during any weekday lunch hour to see how many people—downtown workers and visitors alike—*enjoy* being there now. Quickly disappearing is the "red light" image of the war years. Instead, this is a gathering spot with its own sense of place.

And *place*, as well as *purpose*, is very important to building renewal if we are to stop the erosion of Hawaii's precious heritage and special cultural environment. It means being sensitive to the value of these buildings and being more creative in our design by bringing state-of-the-art techniques indoors while preserving the historic character on the outside.

A case in point for Group 70 International is our building on Bethel Street, for which we were our own client in the 80s. Instead of abandoning the aging Friend Building which turned 100 years old in 1987, we chose to carefully rehabilitate this headquarters. Once the home of Honolulu's first periodical, *The*

Friend building circa
1900. ▼



Friend of Temperance & Seaman, founding father, the Rev. Samuel Damon, would most likely quite approve of its rebirth.

ANOTHER RENOVATION project which we now have underway in Chinatown, at the corner of Maunakea & King, is the Kwai Chan Trust Building. The effort here is a bit different, but the goal is the same. The existing building is outside the character of the district, but it will be in harmony with the turn-of-the-century Chinatown theme when remodeling work is completed next year. Inside, the Kwai Chan will be energy efficient, ADA approved, structurally rehabilitated—and a pleasing work space for its tenants.

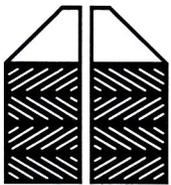
Office remodeling not only mitigates aging and gives us more building inventory, it diversifies our options and brings more people back to central Honolulu's daytime population. And when accomplished with sensitivity to both purpose and place, it enhances the look and enjoyment of our downtown community.

↔ James I. Nishimoto, AIA, is vice president, Group 70 International.



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A high-rise building for the 21st Century

Alakea Project

by
**David
Stringer**

The owner's charge to the team of architects who designed the high-rise office building at 1100 Alakea Street was quite simple—"spare nothing in designing a building that achieves 'international' status for Honolulu." The design solution reflects this simple quest.

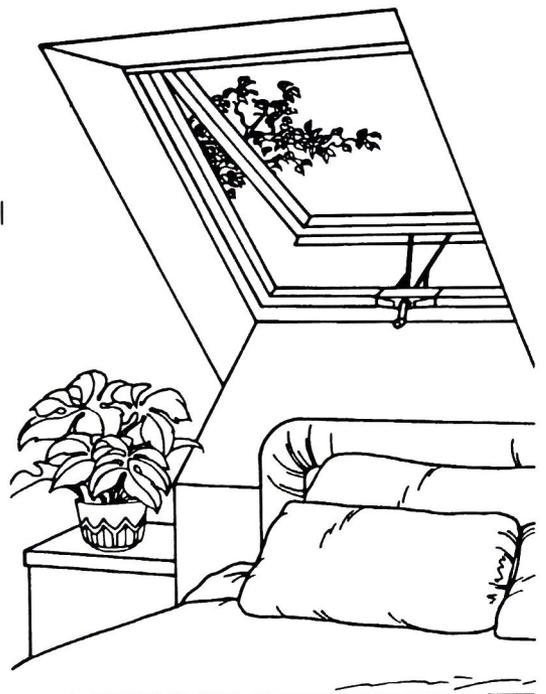
From the onset we visualized this building as a holistic piece of urban sculpture. By utilizing pristine geometry, quality materials and a uniquely simple site plan, we developed a building that can compete with the finest office structures in the world.

The placement of the building at 45 degrees to the intersection proved to be the seminal thought in the creation of a large entry park on an otherwise small site. This tree-shaded, granite-paved courtyard serves as an elegant entree to the building entrance. When viewed with the open spaces of the other three sites which form the corner of Hotel and Alakea, one has a feeling of standing in a large urban plaza.

The simple exterior of the building belies the complexity of the structure and its technological advancements. The five-level parking structure and most operational and maintenance

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▲ Rendering of the 1100 Alakea Plaza building.

facilities are underground, thereby preserving the street level for pedestrians.

THE SPACIOUS EXTERIOR entry is reinforced by a three-story interior

entry lobby. This entry volume, with its cascading granite slabs, is penetrated by ascending escalators transporting visitors to the sunlit elevator mezzanine. The views from the

elevator mezzanine embrace the entire entry plaza and street intersection to the south and the Koolaus to the north. From the mezzanine level the elevator rises above Honolulu in whisper-quiet, high-speed elevators.

The tower is configured with small footprint individual floors. Each floor user can create a unique identity for the entire floor. Access to each floor can be set for unrestricted access, employee-only access, or complete security by barring elevator access.

Each floor is also provided with segregated mechanical and air-conditioning equipment so each half of the floor can operate independently during off-hours without incurring a penalty for firing up a building's entire mechanical system. This offers a huge advantage over existing rental space within Honolulu.

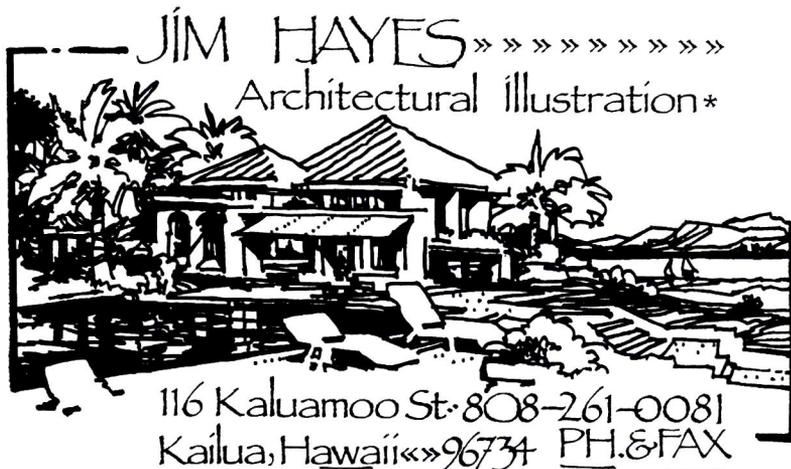
HIGH-TECH ELECTRONIC systems abound throughout the building. Provisions have been made to accommodate direct satellite communication or teleconferencing to remote locations.

Card access security systems can be programmed to restrict building and tenant space access by any of the following criteria: hours of access, classification of employee, area of access or elevator activation and floor access control. Air conditioning and lighting systems can be remotely activated from a car, a home or the beach. Infrared sensors automatically activate faucets and controllers. These features, plus many others, make 1100 Alakea a building of the 21st century.

Consistent with the urban sculpture theme, the normally awkward mechanical equipment and elevator stacks on the roof top are shielded by a chiseled glass face which was incorporated as part of the building's total design.

The secret to this building's elegant simplicity lies in the owner's commitment to excellence. We were fortunate to have an investor so dedicated to quality community investment.

♦ David Stringer, AIA is president, Stringer Tusher and Associates.



A matter of priority Worksite Safety

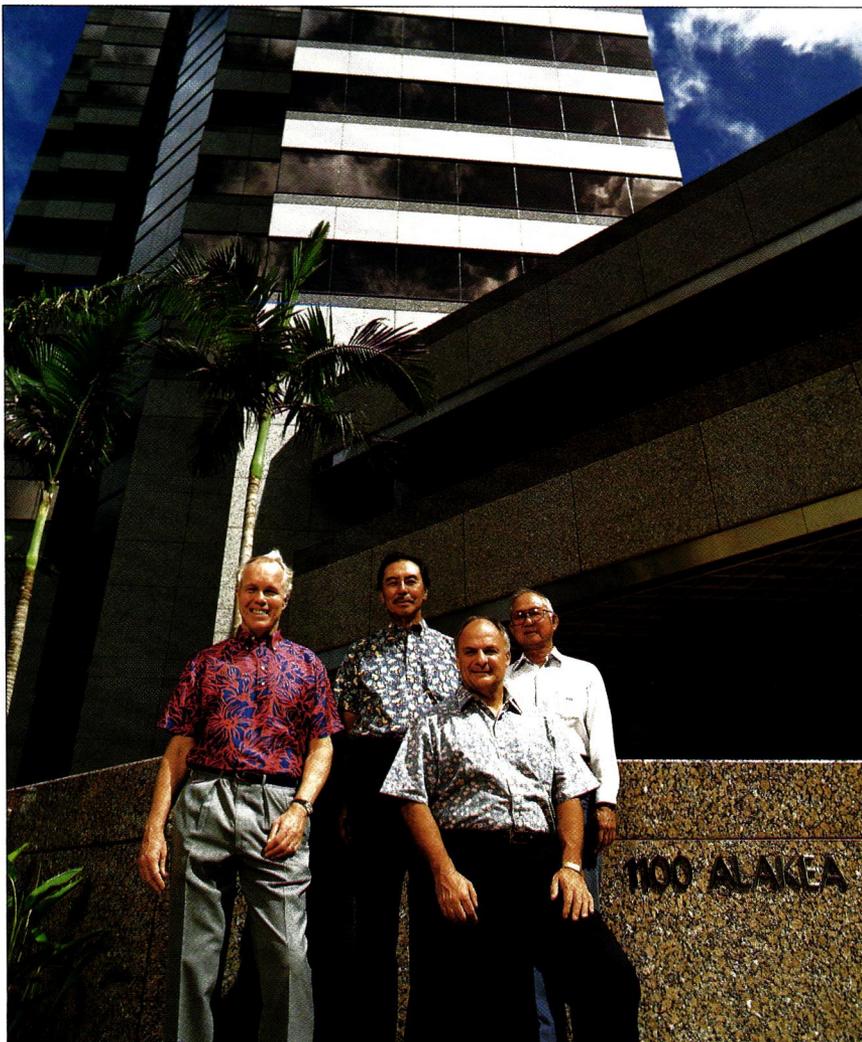
With the constant stream of pedestrian and vehicular traffic in downtown Honolulu, and the numerous construction projects currently underway in the area, safety is a big concern. Fletcher Pacific Construction, one of the state's largest contractors, has initiated programs on its projects, most recently 1100 Alakea, intended to keep safety in the workplace at the forefront.

IN ADDITION TO the safety measures taken on the worksite, Fletcher Pacific recently completed its "Safety and Health Week" program for employees in July. Some of the week's highlights included a safety leadership workshop, a children's safety poster display and tips for safety slogan contests.

On the recently completed 1100 Alakea project, on the corner of two of the busiest streets in downtown—Alakea and Hotel—the company made safety a priority. Utilized were two safety features: waist-high safety nets which served as a barrier around the perimeter of each floor and nets that protrude beyond the floors of the building to catch falling objects.

Commented Harry Galer, Fletcher Pacific's director of environmental safety and health, "Although safety is a priority at all of the company's job sites, the location of the 1100 Alakea project has resulted in site-specific safety measures."

OTHER SAFETY MEASURES taken on 1100 Alakea include what the company calls its "craft safety representatives" program. Members representing each craft engaged on the project (i.e., masonry, iron work, carpentry, etc.) held weekly meetings with the project manager and superintendent to dis-



◀ The 1100 Alakea Plaza project team pictured on site as the 35-story building nears completion includes, left to right, David Stringer, AIA, principal in charge, Stringer Tusher & Associates Ltd.; Bill Takabayashi, owner's representative, 1100 Alakea Corporation; Murray Bawden, president and chief executive officer, Fletcher Pacific Construction; Akana Ma, project director, 1100 Alakea Corporation.

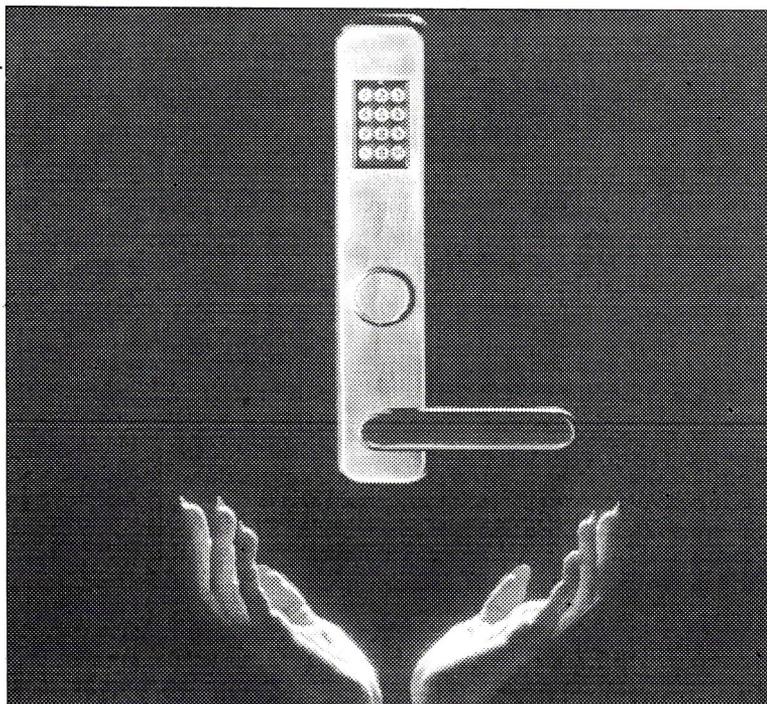
DANA EDMUNDS PHOTO

cuss potential safety hazards. In addition committee members wore green hard hats as visual safety reminders.

"A big part of our program is to keep job safety at the forefront of everyone's mind," continued Galer. "In addition to weekly meetings and visual reminders, our foremen verbalize safety precautions to their crews on a daily basis, whether it be as simple as reminding them to wear their safety glasses or pointing out the things that are being done right."

NEW PROGRAMS THAT ARE currently being developed by Fletcher Pacific include annual safety week programs for employees and their families, an expansion of its drug testing program, and a partnership with Hawaii Occupational Safety & Health, in which HIOSH works as a consultant with the company.

The national average accident rate on construction sites is 15.3 for every 200,000 labor hours, compared with Fletcher Pacific's rate, 6.0 injuries for every 200,000 labor hours.



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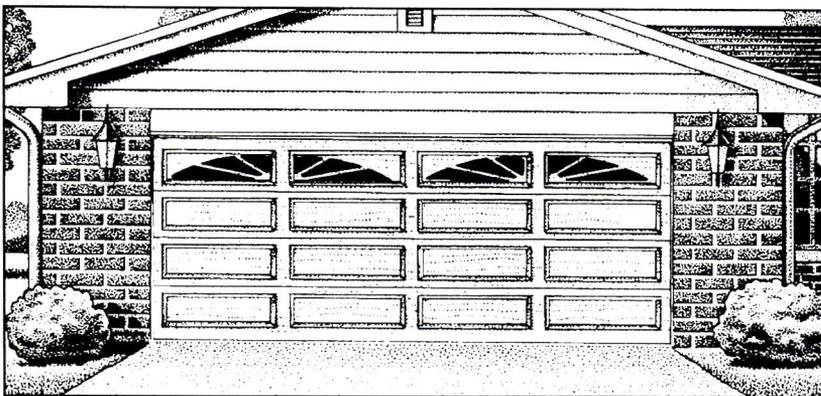
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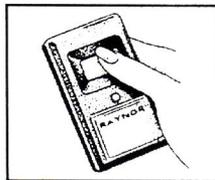
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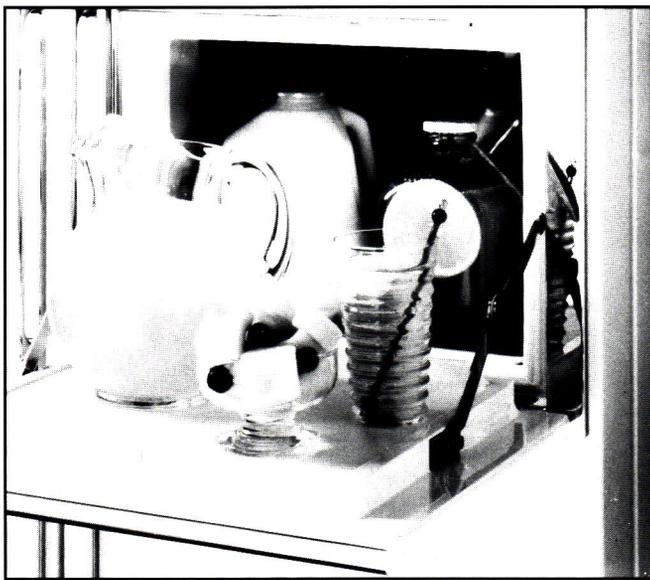
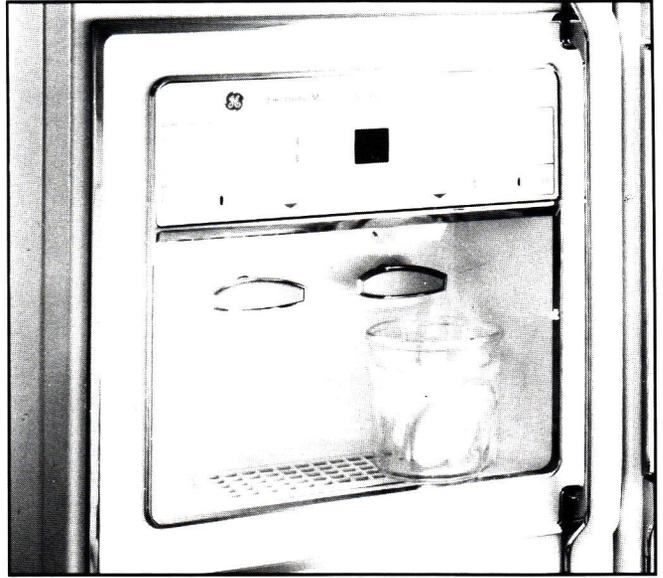
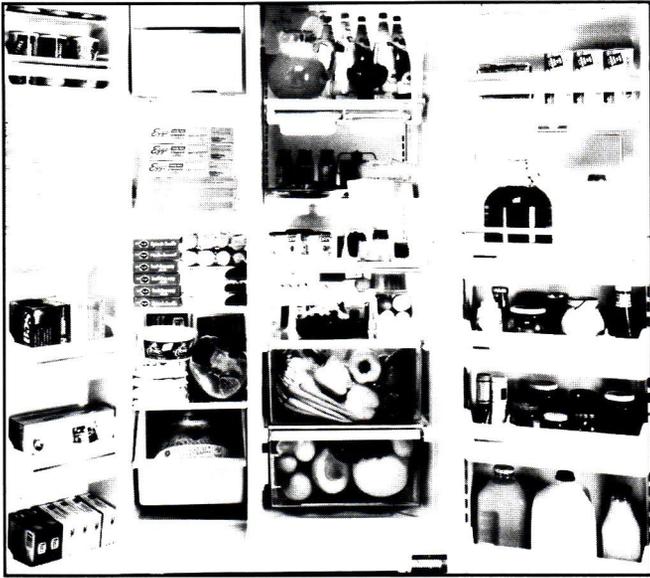
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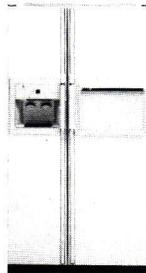


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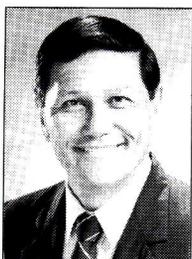


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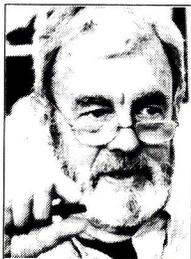


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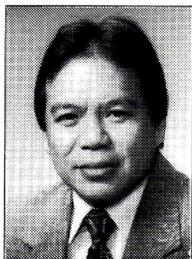
Dr. Michael Chun, President, The Kamehameha Schools. A dynamic leader and visionary. He has a keen sense of Aloha for the tradition and history of the Kamehameha Schools campus. Trained as an engineer, he understands the importance of proper planning and education. Dr. Chun will host this convention.



Joseph Esherick, FAIA, AIA Gold Medalist. Practicing since the 1930s, he is the founder of the 1986 AIA Firm of the Year, Esherick, Homsey, Dodge and Davis. Esherick will deliver the University of Hawaii's *Gus Ishihara Memorial Lecture*. Known internationally as a sensitive architect and educator, his firm's work has been published widely and has consistently won national design awards.



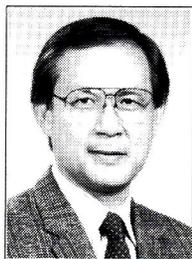
Susan Maxman, FAIA, 1993 AIA National President. The AIA's first woman president, she is energetic and has passionate views concerning the architect's role in the community. She has won many national design awards and is principal of a 14-person firm. An outspoken proponent for environmental responsibility, she represented the profession in the International Earth Summit at the 1992 UN conference in Rio de Janeiro, Brazil.



Dan Chun, AIA, 1993 Hawaii State Council/AIA President. Co-founder of the firm Kauhiakaua and Chun, Chun will lead the day's events and report on the legislative activities by the Hawaii State Council. His firm designed the award winning chapel at Kamehameha Schools and the Heritage Center.



Kurt Mitchell, AIA, 1993 Honolulu Chapter/AIA President. President of Kober/Hanssen/Mitchell Architects, Mitchell is active in the community. He has served on neighborhood boards and participates in critical civic issues. He will lead the Honolulu Chapter election of officers and conduct the annual business meeting.



Raymond Yeh, FAIA, Dean, School of Architecture, University of Hawaii, Manoa. Yeh, comes to us from Oklahoma. He served as department head of Cal Poly-San Luis Obispo, and as chair of the National AIA committee of Architects in Education. He is past president of the Oklahoma Chapter/AIA.

Survival

Hawaii State Co

Oct
The Kame

Kamehameha School

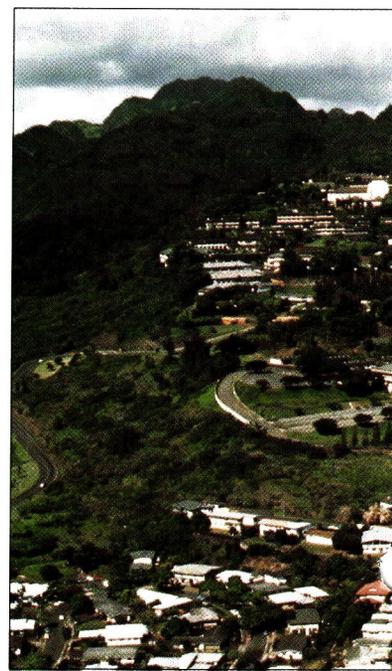
The Kamehameha Schools campus, site of this year's Hawaii State Council/AIA Convention, was established in 1887. The Kamehameha Schools is the sole beneficiary of the estate of Bernice Pauahi Bishop, the last descendant of the royal line of Kamehameha.

Located today on Kapalama Heights, the campus covers 600 acres, 210 of which are in forest preserve. The campus features 68 major buildings, seven miles of roads and seven athletic fields. Facilities include a performing arts complex, dining hall/student activities center, industrial arts complex, computer labs, television studio, three learning centers and an olympic size swimming pool. The campus buildings total about two million square feet serving approximately 3,100 students in preschool through grade twelve, boys and girls.

Plans for the current school were developed in 1928 by the New York architectural firm of Bertram Goodhue Associates, with assistance from C. W. Dickey, Architects to ensure a local influence.

Three major buildings will be used for main convention activities:

1. Princess Ruth Ke'elikōlani Performing Arts Complex — Designed by C.W. Dickey and Associates. The 700 - seat auditorium was completed in 1937. In 1986 plans were begun to create a performing arts complex around the auditorium.



Aerial view of the Kamehameha School convention. The school, a Honolulu landmark.

the 90's

AIA Convention

10
a Schools

Hosts 1993 Convention

2. Akahi — This dining hall facility was dedicated in June 1985. It has a seating capacity of 850 and the kitchen occupies the top floor of this multi-level building.

3. Konia — The main classroom building located on the former Kamehameha School for Girls was completed in 1950.

W.H. Raymond Yeh, FAIA

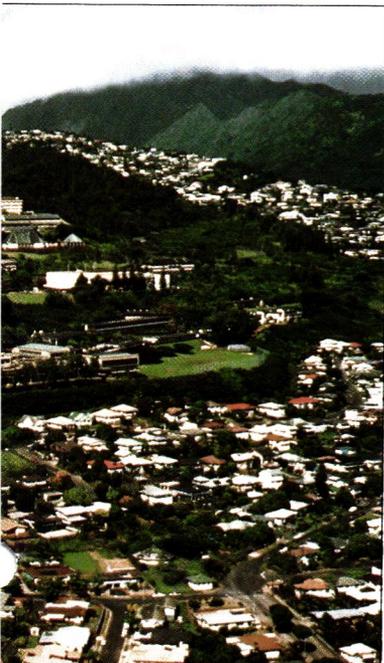
Saturday, Oct. 9, 9:45-10:15 a.m.

"Vision for Survival and Thriving on it"

This is no easy time for architects in Hawaii, and in most places in the United States, due to the economic downturn. We may feel it more so since Hawaii has been largely dependent upon the Japanese economy, which is in a dire state at this time. However, we are in the Asia Pacific region, which is "where the action is" as far as global and architectural opportunities are concerned. For Hawaii architectural offices, this is the time to transform the practice to compete in this arena.

The current state of architectural design in the region can be summarized as the

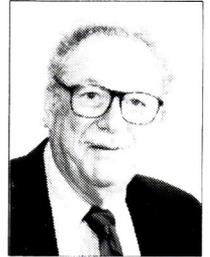
Palama Heights, site of this year's convention was established in 1887.



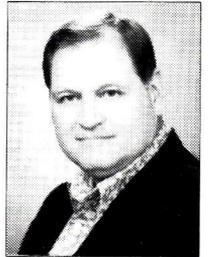
Dennis Neeley, AIA, President of ASG. On the cutting edge of CAD and electronic information, Neeley is founder and Chief Executive Officer of the world's largest AFC CAD applications company. He authored the book, *CAD and the Practice of Architecture*. Neeley writes regularly for *CADence* magazine.



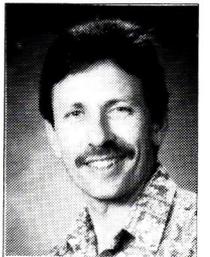
E. Alan Holl, AIA, CSI, secretary-treasurer, Hawaii State Council/AIA. Holl has more than 30 years of design experience. He is manager, Project Delivery at Media 5. He is the recipient of numerous awards and has special insight on ADA, building codes, energy efficiency and project delivery. Active in the AIA, Holl champions the cause for the Intern Development Program and Continuing Education.



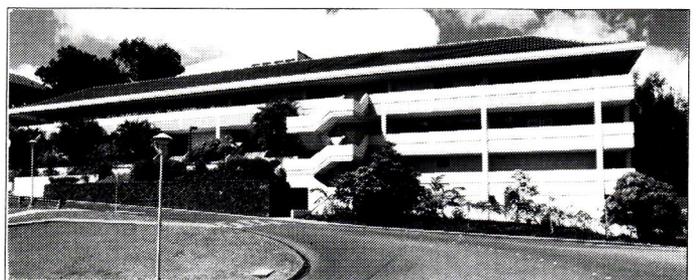
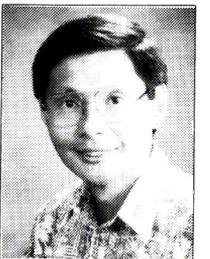
Even D. Cruthers, AIA, AIA Regional Director. He is President and Chief Executive Officer of Media 5, and has earned national and local design awards. He has a keen insight on the need for continuing education. Cruthers looks at the practice of architecture from a businesslike perspective.



Robert Hale, AIA, past president, Honolulu Chapter/AIA. President of Architects Hawaii, Ltd., Hale has a diverse background in management of projects including programming, design, contract document preparation and administration. At the helm of the Honolulu Chapter/AIA when Hurricane Iniki struck the Hawaiian Islands, his quick response and proactive role demonstrated to the community the value of an architect in times of crisis.



Francis S. Oda, AIA, AICP, HSC/AIA Director, Chairman and Chief Executive Officer, Group 70 International. He has won numerous national design awards and is recognized for work overseas. Active on design review boards and within the community, Oda has a specific vision for the role of architecture, culture and the design and planning process in preserving our Hawaiian culture.



Akahi - the schools' main dining hall facility.



Princess Ruth Ke'elikolani Performing Arts complex where most convention events will be held.

wholesale importation of technology and images from the West, particularly from the United States, in a dominance of developer projects with short-term economic objectives. This is done in the context of lack of planning and infrastructure support in the major cities and lack of development goals and policies.

To serve the region effectively, architects in Hawaii need to have ready access to information on local business practice, appropriate technology, code requirements and to have a new method of providing professional service which is in a long-distance mode and a cross-cultural context. Architects need to have more linguistic skills and cultural understanding. Most importantly, architects, more than ever, need to be more sensitive to the various aspects of user needs.

The UH School of Architecture is restructuring its professional curriculum to prepare its graduates for practice in this region. In a parallel effort, the school is setting up a research center to further the understanding of Asia Pacific architecture as a derivative of the cultural ideas of the region. This center will bridge the historical and theoretical elements and the practical architectural design considerations of cities, landscapes and buildings in the Asia Pacific region.

The school, working closely with the architecture profession can make Hawaii a hub for architectural expertise in the Asia Pacific region and effect a more sensitively designed environment for the entire region.

Dennis Neely, AIA
Saturday, Oct. 9,
1:15-2:10 p.m.
"Can CADD Help the Architect Survive?"

The practice of architecture is in the midst of an electronic revolution. The use of CADD and electronic information is dramatically changing the practice of architecture. In a time span of 15 years (1985-2000), the practice of architecture will change from a hand-drawn, paper-based technology to an electronic information, computer-aided design technology. This new technology will change the practice of architecture dramatically.

It is critical that architects understand the current state of computer technology and what will be available in the future.

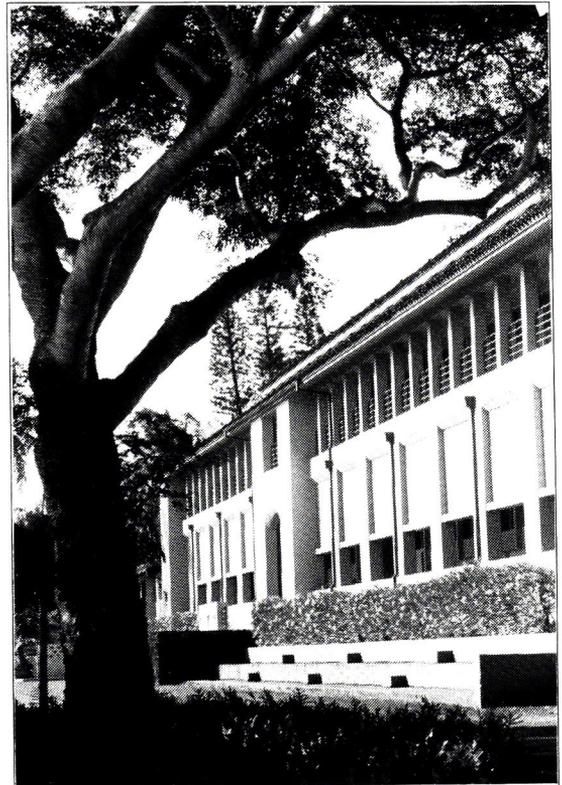
E. Alan Holl, AIA, CSI,
Saturday, Oct. 9, 1:15-2:10 p.m.
"Doing Things Right the First Time"

Today's architectural project is an information-gathering, decision-making, documentation-monitoring process.

The design process creatively evaluates information, decisions and documents.

Construction documents translate design decisions into specific instructions for those who build the project.

What decisions are needed when? Who will make these decisions? Are the



Konia is the main classroom building where several meetings and workshops will be held.

appropriate decisions being made at the appropriate point in project development? In an era of limited budgets, what is an effective decision/documentation process? How is it implemented and maintained?

This workshop will cover specific strategies and provide models to help participants develop an effective project delivery process—doing things right the first time.

E. Alan Holl, AIA, CSI
Evan D. Cruthers, AIA
Saturday, Oct. 9, 2:20-3:05 p.m.
"Intern Development Program—Its Myths and Realities"

What is it? Why is IDP mandatory in more than half of the licensing jurisdictions? How does it work? What impact does it have on the profession? On the office? On the intern? Should we advocate mandatory IDP in Hawaii?

This portion of the workshop will seek to provide the information necessary to enable architects to differentiate between IDP's myths and its realities.

Preliminary Schedule*

1993 Hawaii State Council/AIA Convention

Saturday, Oct. 9

- 7:30-8 a.m. Pre-Opening and Exhibit Set-up
- 8-8:30 a.m. Registration and Refreshments
- 9-9:45 a.m. **Dan Chun**, AIA, HSC/AIA President
Opening Remarks
- Dr. Michael Chun**, President,
Kamehameha Schools
Imua address
- Susan Maxman**, FAIA, President, The
American Institute of Architects.
Keynote Address
- Raymond Yeh**, FAIA, Dean, School of
Architecture, University of Hawaii at
Manoa
*"Vision for Survival and Thriving on it:
A new role for the School of
Architecture"*
- 10:15 a.m.-
12:15 p.m. Honolulu Chapter/AIA Annual Meeting
Kurt Mitchell, AIA, President
Honolulu Chapter/AIA
Concurrently with
Maui Chapter/AIA Component Meeting
Tom Cannon, AIA, President, Maui
Chapter/AIA
- 12:15-1:15 p.m. Lunch at the Akahi Dining Hall
- 1:15-2:10 p.m. Presentation 1: Auditorium
Dennis Neeley, AIA, President, ASG
"Can CADD Help the Architect Survive?"
Concurrently with
Presentation 2
E. Alan Holl, AIA, CSI
*"Survival of the Architect in Practice:
Doing It Right the First Time Around"*
- 2:10-2:20 p.m. Break
- 2:20-3:05 p.m. Presentation 3: Auditorium
Rob Hale, AIA
*"Surviving Disaster: What we have
learned?"*
- Presentation 4
Evan D. Cruthers, AIA
E. Alan Holl, AIA, CSI
"Intern Development Program"
- 3:05-3:35 p.m. Free Time: Visit the Exhibits
- 3:35-4:20 p.m. Presentation 5: Auditorium
Francis Oda, AIA, AICP
"Architects As Keepers of the Culture"

Presentation 6

- E. Alan Holl**, AIA, CSI
"Mandatory Continuing Education"
- 4:20-4:30 p.m. Break
- 4:30-5:15 p.m. University of Hawaii, School of
Architecture-Auditorium
Joseph Esherick, FAIA, AIA Gold
Medalist
"The Gus Ishihara Memorial Lecture"
- 5:15-6:30 p.m. Hosted Reception/Light Music
Entertainment
Heavy Pupu, Sponsor/Exhibitor
Recognition, Door Prizes
- 6:30 p.m. Cleanup and breakdown of exhibits
and displays

Sunday, Oct. 10

- 8:30-9 a.m. Church Services at the Chapel
Chaplain: **David Koku**
- 9-9:10 a.m. Tour Bus Loading at the Chapel
- 9:10-11:10 a.m. Tour of Kamehameha Schools with
Dr. Michael Chun, President,
Kamehameha Schools
- Heritage House
 - Chapel
 - Upper Campus
- 11:10 - Noon Refreshments at the Heritage Center
- Noon Closure

* All Exhibits Open to Public.

All times and sessions subject to changes.

All main events to be held at the Princess Ruth

Ke'elikōlani Auditorium unless otherwise noted.

Convention Planning Committee

Ted Garduque, AIA, co-chair; Bert Ymol, AIA, co-chair; Carol Sakata, FAIA, advisory; Chris Smith, FAIA, special events; Stan Gima, AIA, directory; Doug Luna, AIA, finance and budget; Bottina Mehnerf, associate programs; Bill Sakaguchi, AIA, reception; Beverly Mckeague, Honorary AIA, Hawaii State Council/AIA; Janet Blakeman-Martin, executive vice president, Honolulu Chapter/AIA; Bob Lazo, AIA, director; Alan Neimoff, AIA, facilities and audio visuals; Bob Ramsey, facilities manager, Kamehameha Schools; Cheryl Gima, AIA, students; Puanani Maunu, AIA, students/host; Dennis Kamae, facilities; Pono Lunn, graphics; Charito Alcantra, graphics.

A building to remember Waikiki Landmark

by
Alex
Weinstein

Webster defines “landmark” as a “structure (as a building) of unusual historical and aesthetic interest ...” and this is exactly what developer Sukarman Sukamto wanted to achieve in 1992 when he selected Architects Hawaii Ltd. to design “Waikiki Landmark.”

The developer envisioned a unique condominium structure that would be an expression of Hawaii that tourists would remember over the years as vividly as they would remember Diamond Head and Waikiki.

TO REALIZE THIS VISION, we knew from the start that the project, to avoid anonymity, had to be a bold statement that amplified its name—unique and perhaps controversial, but not forgotten.

The project had to withstand the test of time

and remain a symbol of Waikiki into the 21st Century.

The original solution proposed by Architects Hawaii consisted of two hexagonal towers approximately 75 feet apart—a modern Arch of Triumph—with the top five penthouse floors spanning the two towers as well as the void between towers, resulting in a total 38-story structure with the bottom of the bridge 33 floors above grade.

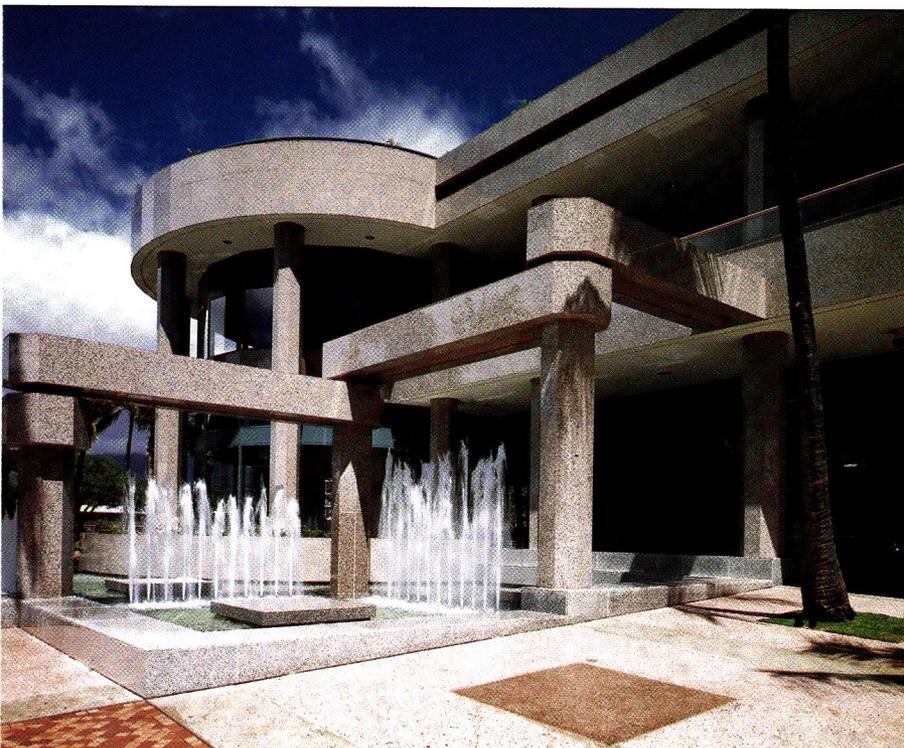
SEVERAL PERMUTATIONS of this original proposal were necessary to accommodate street widening and open space requirements. The final tower design is triangular in format with rounded corners, in harmony with the triangular shape of the site.

The pedestrian experience was a prime consideration; therefore, no vehicle access was allowed from Kalakaua or McCully streets—entry is off Ala Wai Boulevard. All three corners of the site plus other open areas, representing 64 percent of the 2.8-acre site, consist of luscious landscaped mall areas and water features.

A high groundwater table at the site dictated construction of an 11-story parking structure above grade. Care, however, was taken to ensure each level of the parking structure is aesthetically softened on the outside by planters filled with flowering bougainvillea and blue clariss blossoms. In addition, along Kalakaua Avenue, the parking structure is fronted by two levels of attractive retail shopping arcade of approximately 30,000 square feet. Extensive recreational facilities, including a large two-level swimming pool and jacuzzis, are an integrated part of the parking structure’s roof.

The towers are bridged at the 33rd floor by steel trusses interspersed with mechanical areas. The five stories of the penthouse units are left as loft spaces to be custom designed and built by individual condominium owners. The penthouse design element is articulated from

Decorative columns and water features enhance the pedestrian experience. ▼



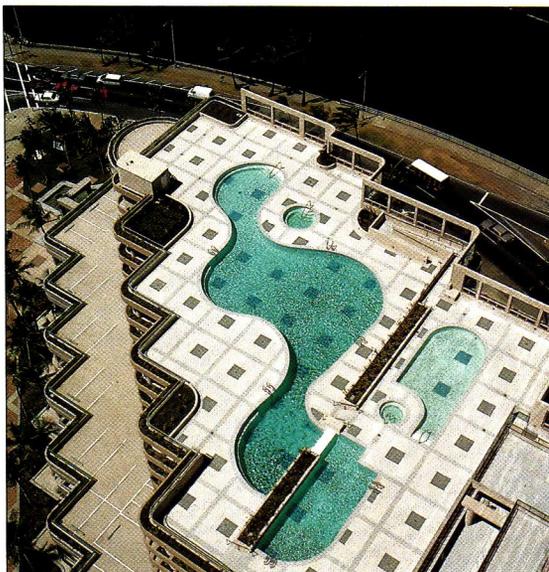
the main mass of the towers and serves as a strong design element that is achieved through the volumetric shaping of exterior elements as well as use of blue-green and pink glass.

PROVEN MATERIALS were used throughout the building—particularly various types of granites and marbles.

Granite was used extensively on exterior facades because of its durability and, unlike many “modern” materials, ages gracefully thus giving the structure an aura of permanence.

Each tower leg of the 196-unit condominium building is serviced by two elevators; the top five floors of the penthouse units are served by three additional exclusive glass elevators.

➔ *Alex Weinstein, AIA, is principal, Architects Hawaii, Ltd.*



◀ Extensive recreational area atop the parking structure.

JIM BUCKLEY PHOTOS

Project Team

Owner/Developer:	Waikiki Landmark Partners Sukamoto Holding Corp.	Structural:	Marlin & Bravo, Inc.
Architect:	Architects Hawaii Ltd.	Electrical:	Douglas V. MacMahon, Ltd.
Principal in Charge:	Alex Weinstein, AIA	Mechanical:	Syntech, Ltd.
Project Architect:	Lloyd T. Arakaki, AIA	Civil:	Richard M. Sato and Assoc.
Design Team:	Ernest Shimizu, AIA Tom Young, AIA Flor Felipe David Poe Kendall Ellingwood	Contractor:	Charles Pankow Builders, Ltd.
		Construction Administrator:	Alan Atkinson, AIA
		Landscape:	Mike Miyabara Associates

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In January, Sub-Zero Distributors, Inc., the largest independent distributors of Sub-Zero built-in refrigerators in the country, became the exclusive distributor of Sub-Zero built-in refrigerators and freezers in Hawaii.

Working closely with Hawaii's builders and developers over the past eight months, Robert P. Riggs, the company's president and CEO, has restructured local distribution so that it will be responsive to customers and market needs.

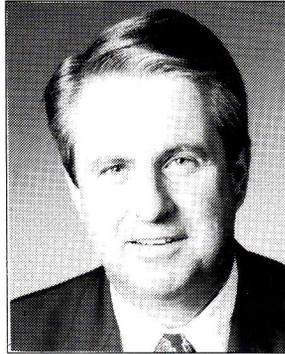
Riggs has more than 20 years of independent distribution experience representing major appliance manufacturers. He has received national recognition for achievements in the industry, serves on the board of several companies and community ser-

vice organizations.

He is a member of the Building Industry Association of Hawaii, the National Kitchen and Bath

Association, the Construction Specifications Institute and the AIA.

Current staff in Hawaii includes Yvonne Rockwell, sales coordinator; John Garofoli, regional sales manager; and Rick Dela Cruz, Hawaii manager.



Robert P. Riggs

"Rick was born and raised on Oahu and has more than 15 years of retail and wholesale experience," said Riggs. "He will be our key salesperson."

"Sub-Zero has been an industry leader in built-in refrigeration for nearly 50 years. The company is known for the design, technology and handcrafted quality of its products," Riggs pointed out. "But it still takes the right people, determination and hard work to ensure a product's continued success. Hawaii's customers cannot be effectively served by telephone or fax. A distributor must have a presence in the markets served. This means a long-term commitment and a substantial investment in funds, facilities and people—without which we couldn't possibly provide the level of service our Hawaii customers deserve."

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Opening a shopping center Kapolei

by
**Makenna
Perkins**

The Kapolei Shopping Center and Campbell Square are the first commercial structures to open and operate in the new city of Kapolei. The center forms the beginning of the commercial district for the city of Kapolei. The 132,000-square-foot retail center anchored by Safeway and Longs Drugs was designed by Kober/Hanssen/Mitchell Architects and follows the urban design guidelines created for the new city by Group 70 Ltd.

THE CHALLENGE WAS to integrate the practical realities of a community shopping center with the concept of a "garden city comprising Hawaiian architectural features and detailing" specified in the plan.

"Traditional shopping center design requires that the project layout be developed to focus on the tenant and ease of shoppers," said Kurt Mitchell, Kober/Hanssen/Mitchell president.

"Safe and convenient pedestrian and vehicular circulation formed the basis of our layout."

In addition, the center is designed in phases to correspond with changing demographics. Because the timing of the second phase was unknown at the planning stage, the first phase was designed to appear complete in and of itself. However, it can readily accept a second phase as a natural extension of the design.

"TYPICAL COMMUNITY center design requires a rather linear, single store layout," notes Mitchell. "Our aim was to retain the integrity of the layout while breaking up a 900-foot-long stretch of frontage." This was accomplished by roof articulation and placement of the major tenants in relation to the in-line stores. Gable roof and protruded double column entry features were incorporated into the overall design to call attention to the large stores' entry locations within the center.

To comply with the intent of the urban

The Kapolei Shopping Center seen from the air. ▼
GARY HOFHEIMER PHOTO



design guidelines, the predominant roof form is double pitched, with clay tiles in cool, blue/green hues to reflect a "Hawaiian influence."

Building materials were selected based on their ease of construction, maintenance qualities and durability in light of the climate and high pedestrian use. Large, covered walkways provide shade from intense sunshine and act as a UV protector for storefronts and merchandise.

LANDSCAPING WAS ALSO designed to provide shade while not obstructing store fronts when trees and plants were fully grown. In the parking area, the plan called for shade trees to break up the overall size of the lot without impeding vehicular circulation.

"Shopping centers are usually developed in areas where there is a residential market available. Kapolei Shopping Center was developed to serve and enhance the future residential market," said Mitchell. Demographic projections show that by the year 2010, 126,000 people are

expected to live in Kapolei.

"The shopping center is 90 percent leased and the reaction of tenants and users alike has been very enthusiastic," said Synthia King, Campbell Estate's Manager, Commercial/Office Properties. "Several owners have expressed surprise at the broad market Kapolei attracts."

"Not only do we have shopping center customers and employees, but we are also getting regulars from neighboring construction sites and

James Campbell Industrial Park," said Laurent Basse, Subway franchisee. Young Chu, operator of Alpha Video store says his customers are coming from as far as Waianae.

The development intent of Kapolei Shopping Center was to be an initial catalyst to the formation of the new city—it seems intent has been met.

◆ *Makenna Perkins is Marketing Coordinator, Campbell Estate's Hawaii Development Division.*

Center Celebrates Grand Opening

On Saturday, Oct. 30, in the spirit of Halloween, Kapolei Shopping Center will celebrate its opening from 10 a.m. to 4 p.m. Families are encouraged to come in costume and have their complimentary picture taken by Longs Drugs.

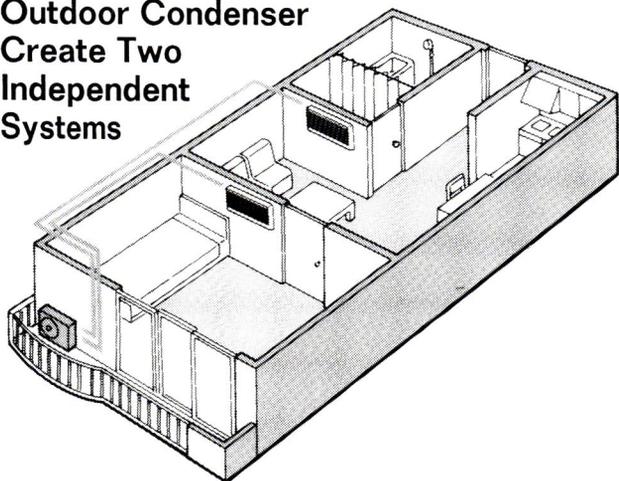
In conjunction with this celebration, shopping center tenants will sponsor activities including mask making, face painting, cookie decorating, ice cream eating contests and day-long entertainment featuring music, Hawaiian dance and other acts.

Those who get their "Passport to Trick or Treat Street" stamped at each of the new businesses become eligible for prize drawings every hour, with a grand prize winner announced at the end of the day.

And Design Partners, architects for Malanai at the Villages of Kapolei, will demonstrate their talents carving pumpkins at the Watt Hawaii "Pumpkin Patch."

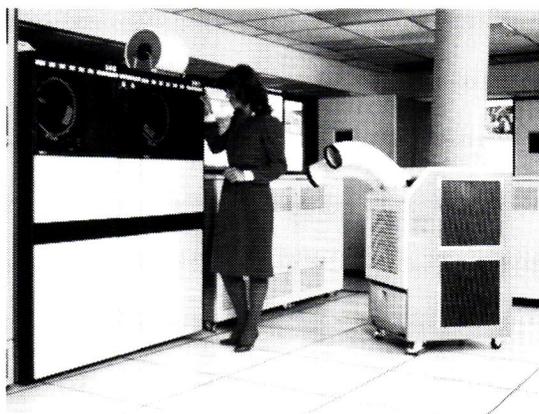
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Reducing air pollutants Electric Vehicles

This is Part I of a two-part article on electric vehicles, technology and the environment.



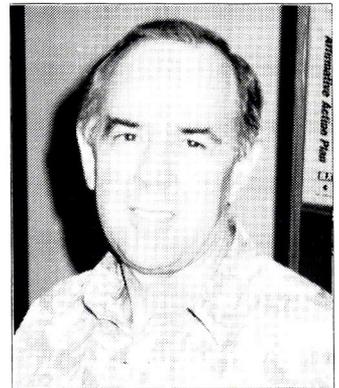
Electric vehicles (EV) have been in use in Hawaii for many years. The Hawaii Natural Energy Institute has had up to 10 vehicles converted to battery operation; also, Hawaiian Electric Company (HECO) currently has a full-sized van that is battery powered.

In the past, electric vehicles did not gain public acceptance because of lack of range, low top speed and acceleration, lack of infrastructure and high cost. However, the future of EVs looks brighter, thanks to improved technology and growing concerns of the deleterious effects internal combustion vehicles (ICEV) have on the environment.

THE SUCCESS OF EVS is essential to reduce pollution produced by ICEVs and America's dependence on foreign oil. The technological improvements in EVs can have a positive effect on the environment, reduce dependence on foreign oil and overcome performance limitations.

Studies by the Sacramento Municipal Utility District and the Southern California Air Qual-

ity Management District show that EVs are beneficial to the environment. An electric vehicle does not produce tailpipe emissions. However, to form a fair comparison, we need to look at the full fuel-cycle



accounting. Fuel-cycle accounting considers EV emissions produced by the charging energy source. This ranges from zero, if solar photovoltaic panels are used, to a finite amount depending on the fuel mix used to generate the power.

Assuming the recharging power comes from the utility grid, emissions would be those of the electric generating plants. Government agencies (in Hawaii it's the Clean Air Branch of the Department of Health) control generating plant emissions. The controls are much stricter than those mandated for ICEVs by the Environmental Protection Agency (EPA) and are more closely monitored. Additionally, in Hawaii, generating plants are usually located away from urban areas so their emissions do not add to the curbside pollution of ICEVs. ICEVs produce their worst pollution when idling in stop-and-go traffic; effectively, they are getting zero miles per gallon.

When an EV is stopped, it does not use energy. It only uses energy when moving. Newer EVs also use regenerative braking that takes the energy used to stop the car and puts it back into the battery. One way to compare pollution from EVs and ICEVs is to see how many miles it takes to put 1 pound of pollutant in the air. A typical ICEV will produce 1 pound of carbon monoxide (CO) every 40 miles, or about two average days of driving in Hawaii. Based on figures derived from HECO's fuel mix, an EV

Impact, a new breed of GM vehicles running on electric power. ▼



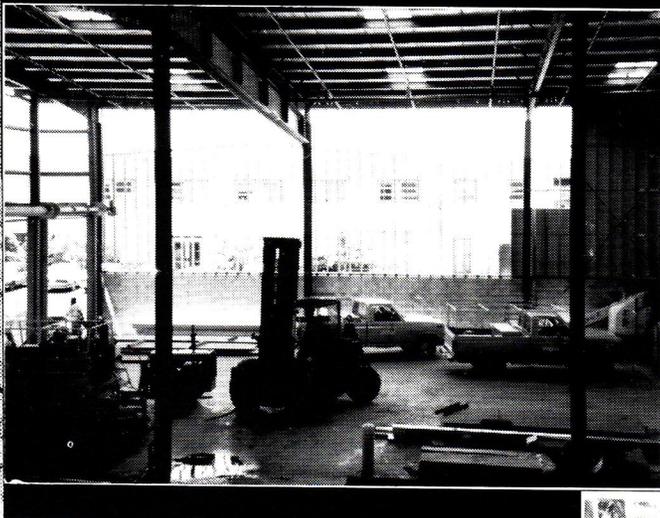


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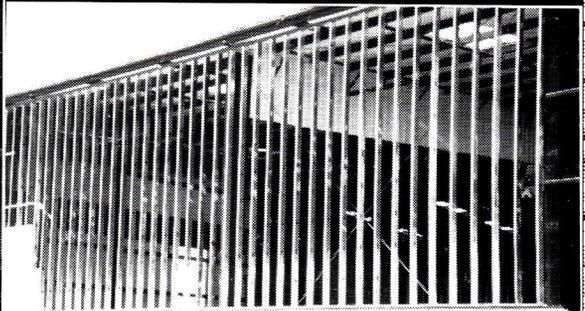
HECO ARCHER 138

G.C.: Walker-Moody Construction Co., Ltd.
Architect: Architects Hawaii



FOOD BANK

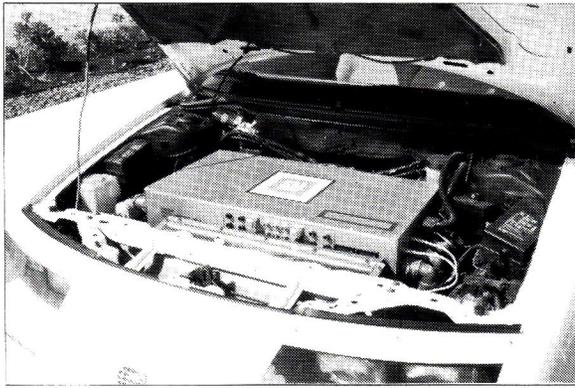
G.C.: Walker-Moody Construction Co., Ltd.
Architect: Hiromichi Asaoka



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would take 4,350 miles to produce the same 1 pound of CO₂, about six months of driving. When it comes to the effect on the environment, the electric vehicle wins handily.

THE AMOUNT OF OIL imported in the United States is approximately equal to the amount of oil that is used for transportation—planes, trains and automobiles. Reducing the amount of oil used for vehicle fleets and personal automobiles will go a long way in reducing dependence on foreign oil. Hawaii imports all of its oil, about 15 to 20 percent of which is used for automobiles. The Hawaii Data Book 1992 shows that an average car on Oahu uses 444 gallons of refined fuel per year. HECO generates its power from a mixture of fuels: oil, coal, municipal waste, bagasse (sugar cane residue) and wind. A trip of 1,000 miles in an EV will use 13.1 gallons of oil, 45 pounds of coal and

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♦ Ralph Dobson, Associate, is senior marketing research engineer, Hawaiian Electric Company.

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Architects Lead EV Design Competition

Earlier this year, architects were either principals or team leaders in the AIA-supported National Planning and Design Competition titled "The Electric Vehicle and The American Community." The competition asked for the creation of a "vision of a future infrastructure which will provide excellent support for electric vehicles (EVs) and help improve the quality of life in an American community."

The \$20,000 Grand Prize winner, "The Odyssey Team," devised an EV infrastructure for Cambridge, Mass. Members of the team concluded that an effective system must involve "a linked framework of policies and technologies;" no single element will be enough. Infrastructure must be built to recharge the vehicles, public policies adopted to encourage EVs and public awareness increased.

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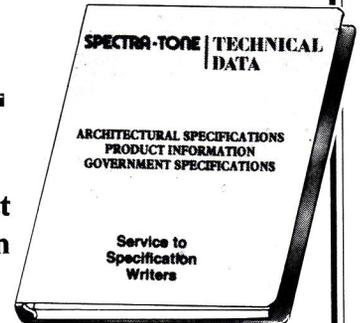
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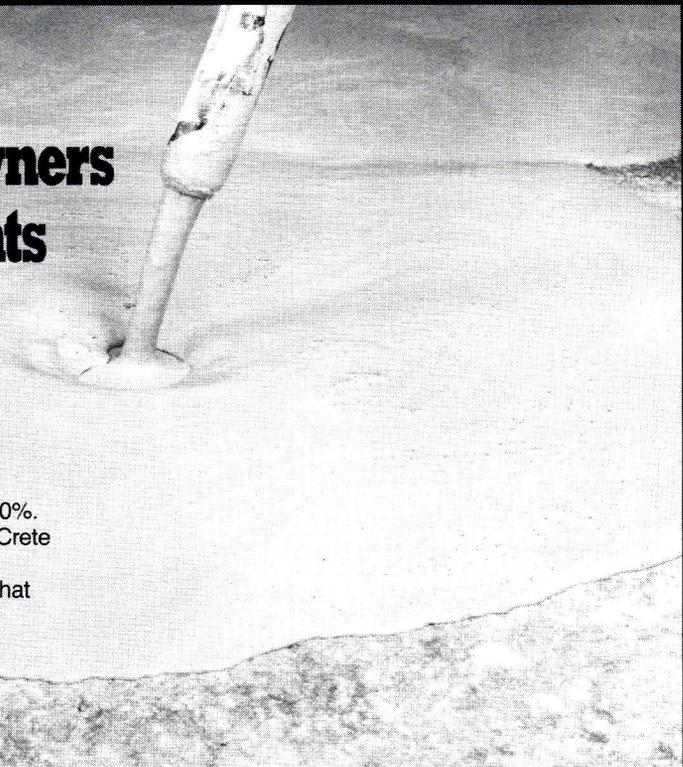
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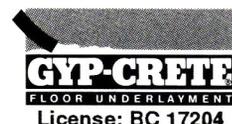
Not only that, Gyp-Crete makes a smooth, flat surface that helps floor goods last longer.



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Handling more than just security

TotalHome

Home security is not the only motivation for installing electronic devices in a home. Today, home security systems incorporate features that can make homes more comfortable, convenient and enjoyable.

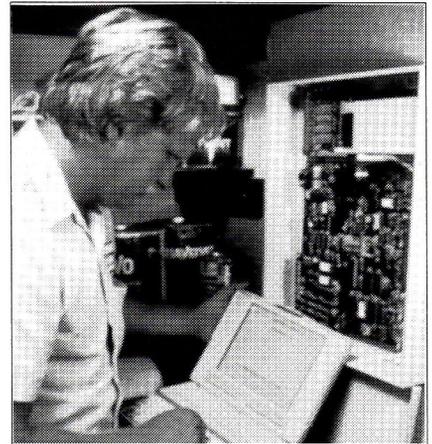
Such a system, Honeywell's TotalHome, is a standard feature at Kaala at the Bluffs, an entry in this year's Building Industry Association (BIA) Parade of Homes.

Until recent times, home automation systems were exclusively featured in the more affluent residences.

The installation of the TotalHome system at Kaala at the Bluffs represents a breakthrough in home security systems because it is introduced as a standard feature in the affordable home market.

TotalHome also allows control over air conditioning, lighting, stereo, appliances and telephone/intercom, just to name a few.

The system is controlled from a wall-mounted keypad or remotely from any telephone in or outside a home.



▲ Typical TotalHome installation.

Sophisticated miniature contact and motion detectors, strategically located throughout a home not only can immediately detect intruders or smoke/heat but also alert residents.

During fires, the system simultaneously turns off the air-conditioning, calls the nearest fire department and turns on stairway and entry lights to show the shortest way to safety.

A person can interactively seek, via telephone, changes in temperature, lighting and security settings and obtain system status reports.

The system's unique "vacation" feature keeps a constant watch on a residence while residents are at play. Vacationers can establish contact with the system, inquire about its operational status and order sweeping setting changes.

TotalHome will also allow viewing of arriving guests and unexpected visitors from any TV in the house and a night vision sensor permits residents to see their driveway and other key locations outside the home even in total darkness.

A wall-mounted emergency button in the master bedroom, when depressed, switches on outdoor lights and relay a silent message to police.

On a lighter side, the system can be instructed from a vehicle in rush-

When Consistency Counts, Count On GE Silicone Construction Sealants

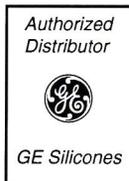
Different jobs demand different kinds of sealants. That's why GE silicone construction sealants are specifically engineered to be the best products for their individual applications.

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hour traffic, via cellular phone, to regulate air conditioning units, bring water in an indoor spa or jacuzzi to the desired temperature or even turn on the stereo system and load a favorite cd.

In the Hawaiian islands, Honeywell's TotalHome security system is distributed by Smart Homes of Hawaii, Inc.

♦ by Paul Sanders

Home Automation System Displayed

The new TotalHome security system can be evaluated at Kaala at The Bluffs from 10 a.m. to 5 p.m., during the remaining BIA Parade of Homes weekends, Oct. 2-3 and 9-10.

It was installed by Smart Homes of Hawaii, Inc. in collaboration with the Royal-Clark Development Company, the Kaala at The Bluffs developers.

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The builders of Hawaii—above the ground and under it—have long prized the strength and endurance of concrete. For roads,



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Paradise, it can also require our infrastructure to resist such things as floods, hurricanes, and erosion. Few of man's inventions have served so well so long as concrete. It will serve Hawaii far far into the future. It's the job it was made for.

For information on concrete and masonry construction and on the latest state-of-the-art technologies available and working for Hawaii now, simply call the CCPI Research Library at 833-1882.

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CARLISLE sells **real** warranties. With roofs in service more than 30 years, there is a huge reserve fund to backup the promises. Warranty inspection is the toughest in the industry. The roof is made "by the book" or it won't be warranted, and the roofer is out of the program.

How can you tell a **junk** warranty?

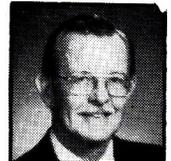
- Not enough reserves for possible claims on present projects.
- Owner **must** inspect frequently. If he doesn't, warranty lapses.
- Representative charges for his inspections and requires repairs.
- Warranty is void if there is ponding.
- Owner **must** maintain flashings on roof top equipment.
- Sealants not covered by the warranty.
- Not transferrable to new owners.
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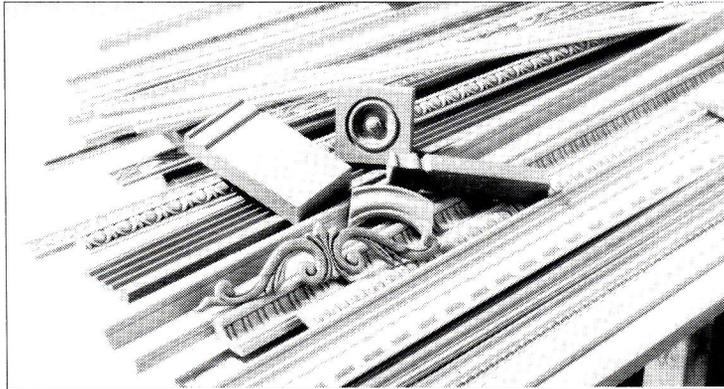
Bob Hockaday



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Detail products showcased Ornamental Mouldings



▲ Architectural detail products will be on display at the Pacific Interiors Expo '93 Oct. 7.

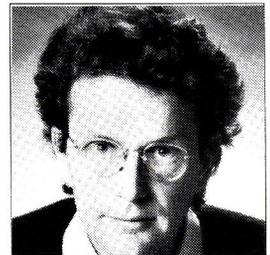
UH Appoints Shirley Cruthers

Dean Raymond Yeh of the School of Architecture, UH-Manoa, has named Shirley Cruthers assistant to the dean for special projects, a new position. Among Cruthers' responsibilities will be assisting the development of a year-long lecture series, coordinating annual giving and public relations. Cruthers was formerly executive vice president of the Honolulu Chapter/AIA.



Peter Calthorpe Featured

Architect Peter Calthorpe, a leader in the movement to re-think the nature and



quality of growth and to redesign the American Dream, will present his design philosophy at an all-day workshop Charette, Oct. 22, Tokai University. Contact Alex Neuhold, AIA, 263-0671 or Ramona K. Mullaney, APA, 533-0777 for information.

Maui Students Receive Awards

Robert Enriques, a Saint Anthony graduate, and Dennis Harmon, a Lahainaluna graduate now attending the University of Oregon, are the recipients of the sixth annual scholarship awards co-sponsored by the Maui Chapter/AIA and the Wailea Resort Company, Ltd. Awards, amounting to over \$5,000, were presented July 22.

Funds for the scholarships were raised during a golf tournament May 15, an annual event held to assist Maui students currently studying architecture at various universities.

Ornamental Mouldings, represented by National Laminates, Inc., is the acknowledged leader in the design and manufacture of solid wood architectural detail products. A complete selection of cornice mouldings, chair rails, baseboards and door casings is available, as well as complementary accessories including pedi-

ments, pilaster capitals, corbels and ceiling medallions. This comprehensive line allows the creation of any millwork effect desired.

See these products at the upcoming Pacific Interiors Expo '93, Oct. 7 at the Hawaii Prince Hotel. Call 833-4344 for details.

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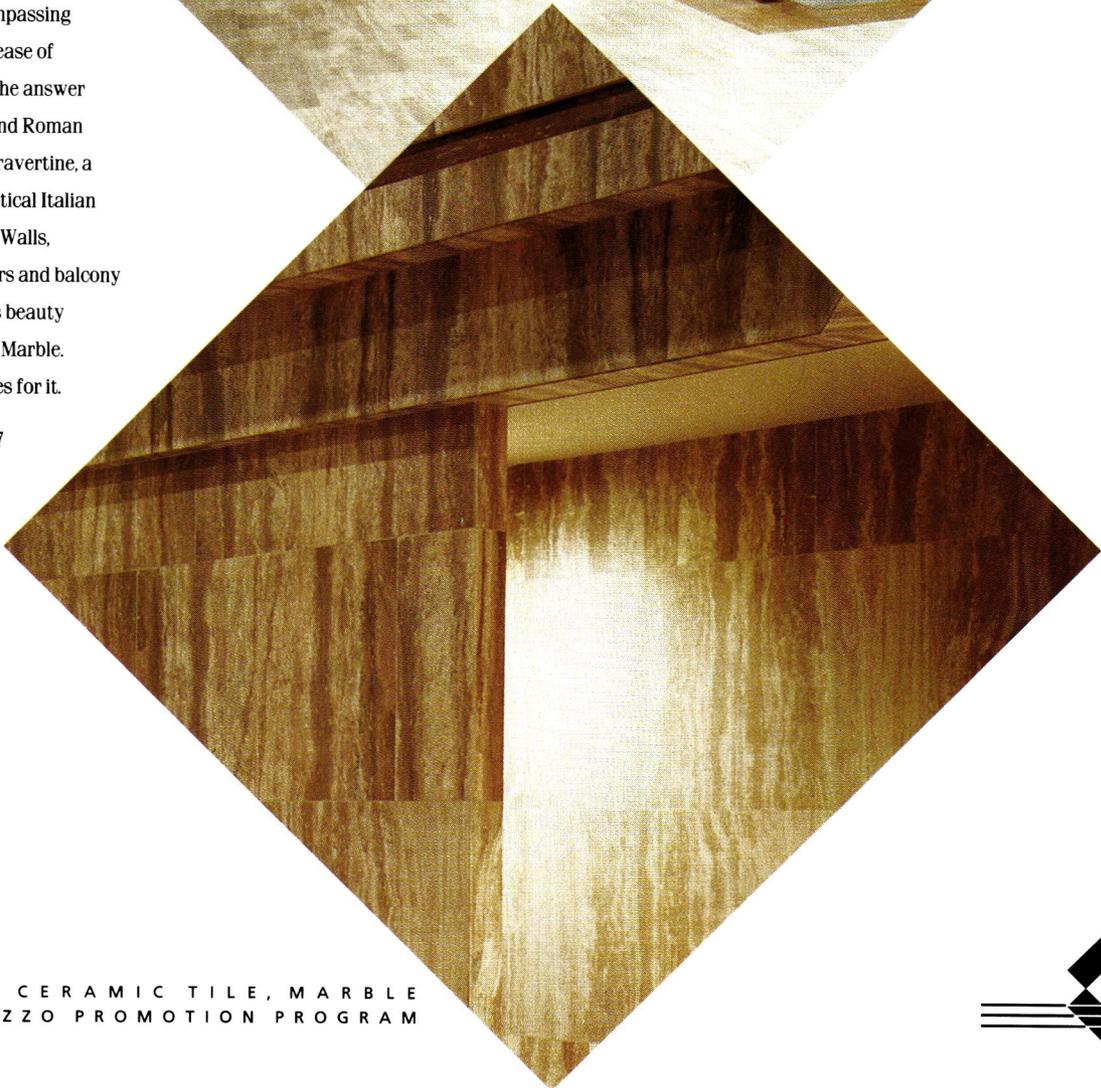


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Halloween Treat Street

The fourth annual Halloween Treat Street will be returning to Bishop Museum on Oct. 31 from 5:30 to 8 p.m. This is a community-focused

activity organized by the American Institute of Architecture Students (AIAS), UH-Manoa Chapter.

This event includes the design, construction and erection of building facades by the architecture students. Halloween night AIAS students dress in costumes and pass out treats from the building facades. This event is free and open to the public. All ages are invited to attend.

Steel Framing Covered

Steel framing is quickly becoming the most popular alternative to wood in the residential construction industry. To help optimize quality performance, the American Iron and Steel Institute has published the *Residential Steel Framing Manual for Architects, Engineers and Builders*. For information, call the AISI's Steel Home Hotline at (800)-79-STEEL.

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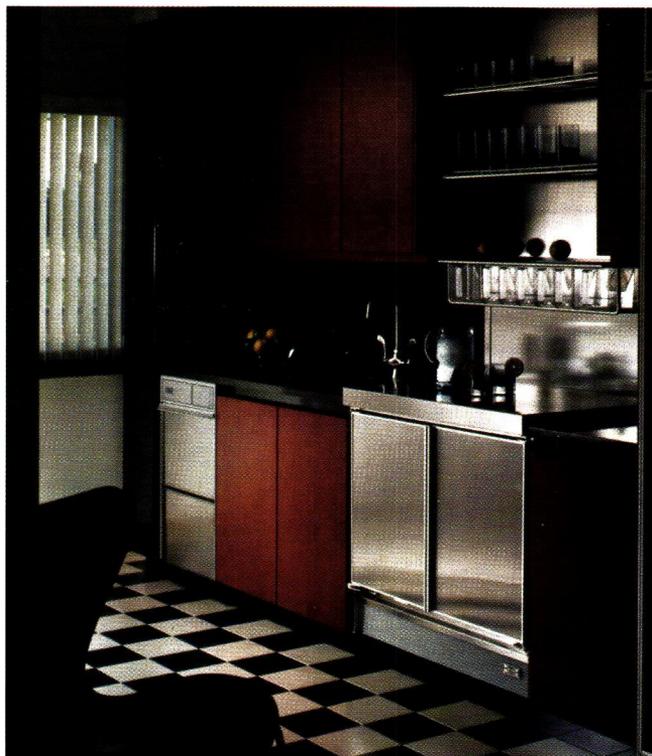
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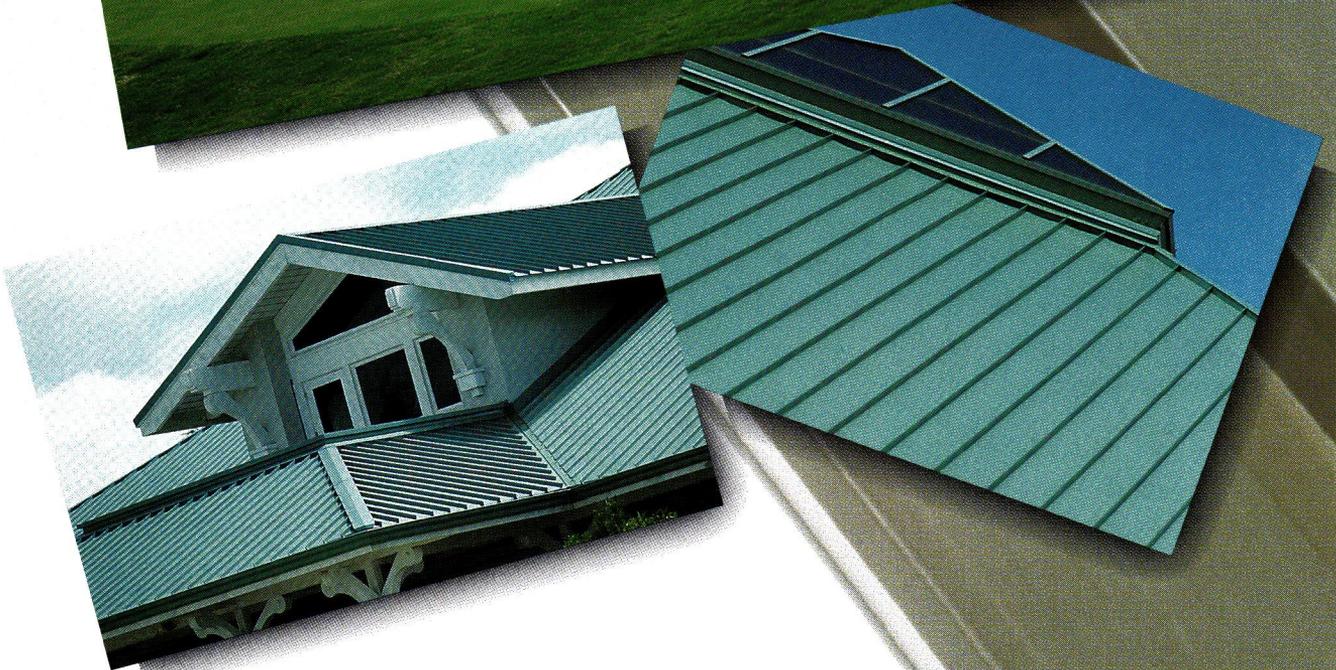
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