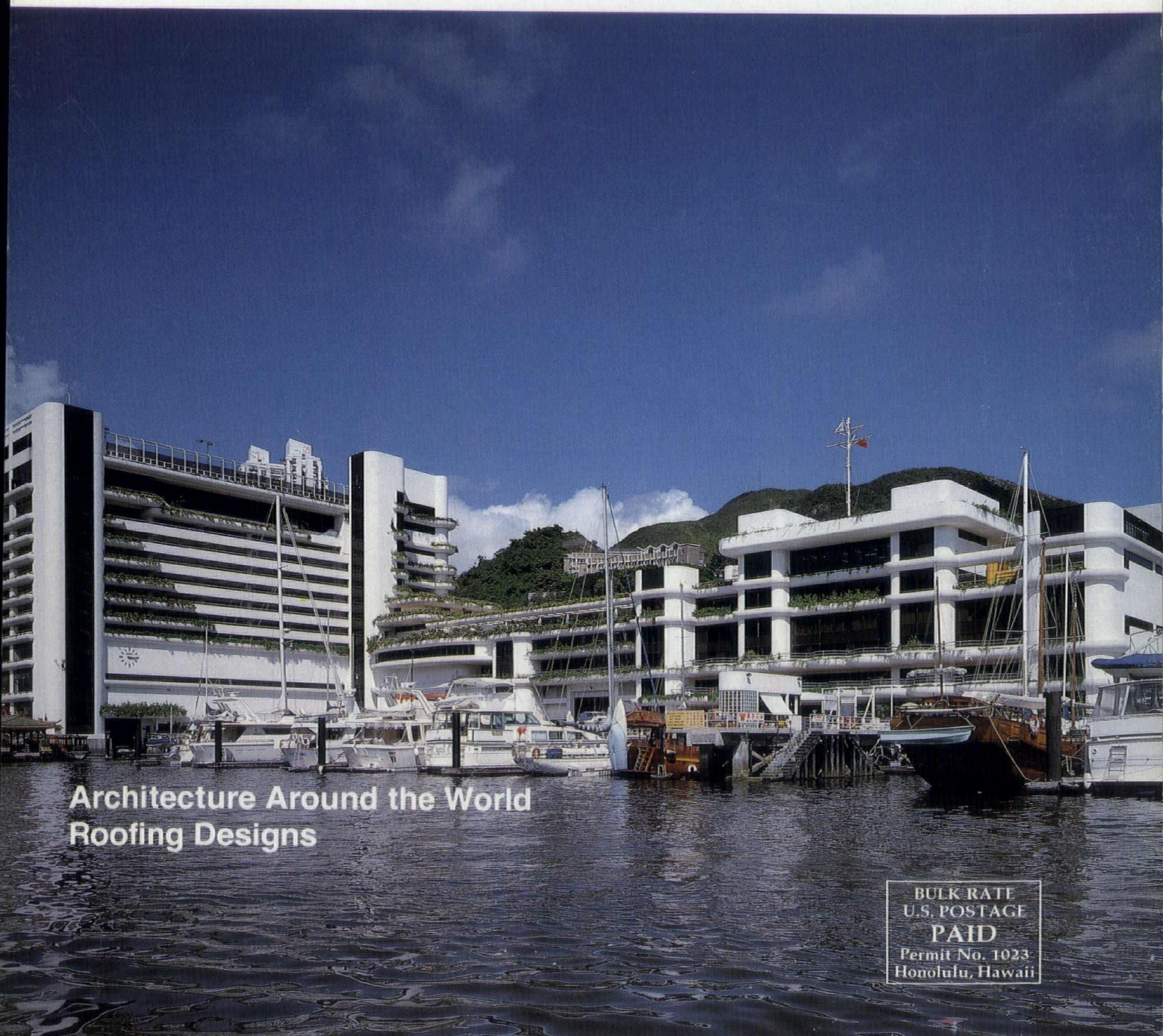


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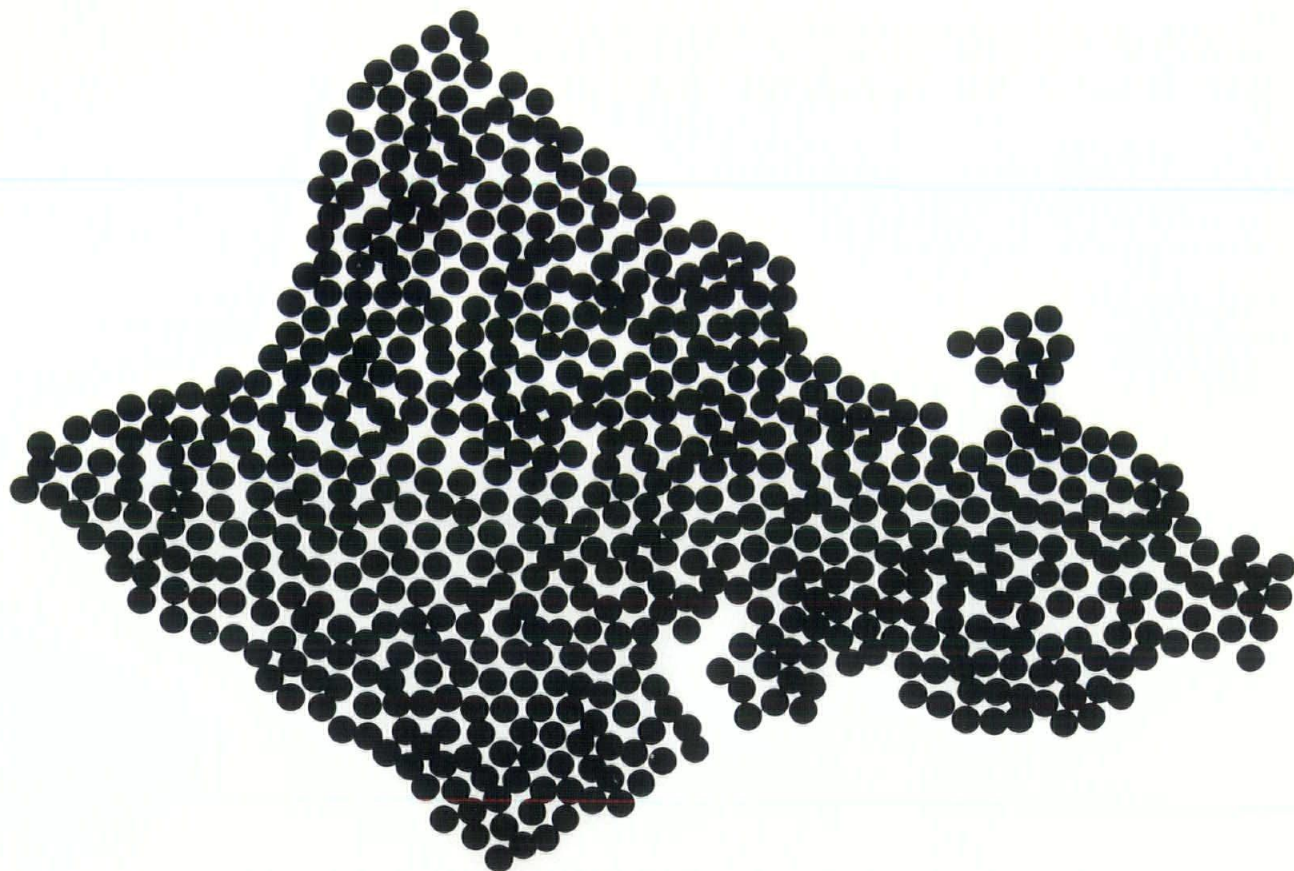
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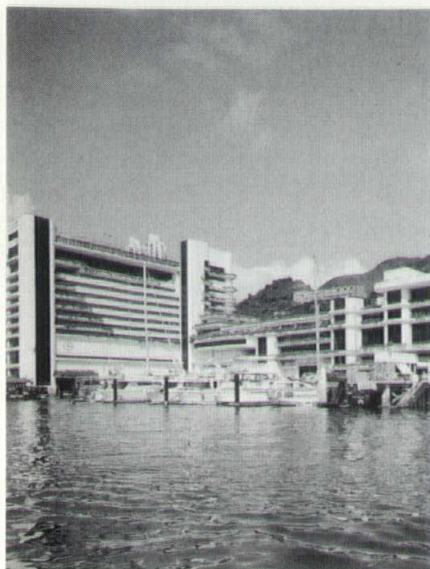
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Cover: Reflecting a diverse nautical and recreational image, the elegant Aberdeen Marina Club project in Hong Kong was selected a 1987 Design Award recipient by the Hawaii Society/AIA. Fox Hawaii Inc. received this prestigious award.

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TABLE OF CONTENTS

Volume 16, Number 8

August 1987

4 PRESIDENT'S MESSAGE

ARCHITECTURE AROUND THE WORLD

- 6 Montaza: An Egyptian Retreat**
Preserving a national treasure on the Mediterranean Sea
by Robert M. Fox, AIA

- 8 Singapore - Asia's Garden City**
Hotels on this island nation are famous for their lush landscaping
by Raymond F. Cain, FASLA

- 12 Baha'i House of Worship in New Delhi**
Hailed as the Taj Mahal of the 20th century, this magnificent structure has attracted the attention of the architectural world

- 28 Design of New Capitol Complex**
Architects Hawaii has captured the traditions of history and culture of the Federated States of Micronesia in this designed project

ROOFING DESIGNS

- 14 Using Copper as a Roof Expression**
by Daniel G. Chun, AIA, Kauahikaua & Chun/Architects

- 22 Metal Roofing a Popular Choice**
by Mike Durant, Manager, Earle M. Jorgensen Company

- 32 Clay Tile Roofing Realities**
by Dennis B. Conway, President, Honolulu Roofing Co., Ltd.

HAWAII SOCIETY/AIA 1987 DESIGN AWARDS

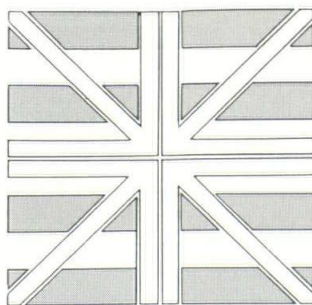
- 24 Aberdeen Marina Club - Hong Kong**
Fox Hawaii Inc. Architects/Planners
Arthur C.S. Kwok Architects & Associates

LEX SCRIPTA

- 18 Coastal Construction Developments**
To protect themselves, design professionals should be aware of the permit process and legal definitions regarding Hawaii's coastline
by David M. Louie, Esq.

10 NEWS

34 NEW PRODUCTS



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PRESIDENT'S MESSAGE

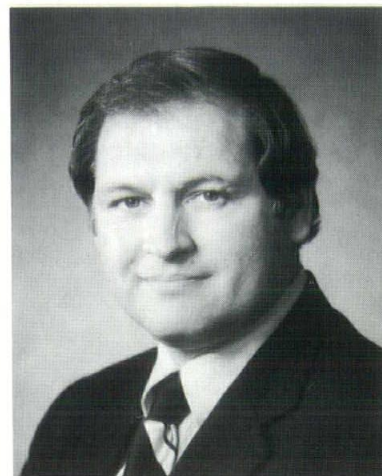
Architecture '87: FACT, FUTURE & FANTASY

by Evan D. Cruthers, President
Hawaii Society/AIA

Designed to meet the busy schedules of its members, the 1987 AIA National Convention, June 19-22, was the first time the Institute ever held its annual convention over a weekend. The theme, "Architecture '87: FACT, FUTURE & FANTASY" was explored through an array of programs, seminars and presentations in one of the fastest growing and most exciting places in the country, Orlando. Hawaii was well represented, and I'm sure all there would agree that Orlando is a super model for all accommodations and convention facilities planners.

At the center of the excitement, of course, is Disney. In a Focal Point address, the creative collaboration that determines the development of Disney's land holdings was explored by top executives from Disney Development Company and Walt Disney Imagineering. Mixing comments and video of Fact, Future & Fantasy about their approach to development, they discussed plans for the 40 square miles of central Florida controlled by Disney.

The key to the Disney process is the commitment to finding the "big idea" or vision for any new project. It is the job of the "Imagineers" to come up with the idea. Numbers and details come later. Speaking about architecture, Disney development exec Peter Rummell said, "There should be something about it, something in its form or shape or color that will bring a smile." Examples were shown of projects on the boards, including



Evan D. Cruthers

Wimberley Whisenand Allison Tong & Goo Architects' design for a resort hotel near Disney World.

Another of the Focal Point addresses was given by Pat Choate, an internationally influential economist. He stressed that the U.S., to compete effectively in a global economy, must "look at the world as it really is, rather than how we want it to be." Choate discussed steps needed to reverse America's losses, including foreign penetration of the U.S. market, governmental indifference, a declining infrastructure and a neglected work force. We must change our thinking from short-term to long-term and global, if we are to close the gap in talent, products or services between U.S. and foreign competitors. Choate also noted that architects should be an integral part of upcoming negotiations for a set of global rules governing their services abroad.

Drawing on a lifetime of achievement, Phillip Johnson,
(continued on page 40)



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Montaza: An Egyptian Retreat

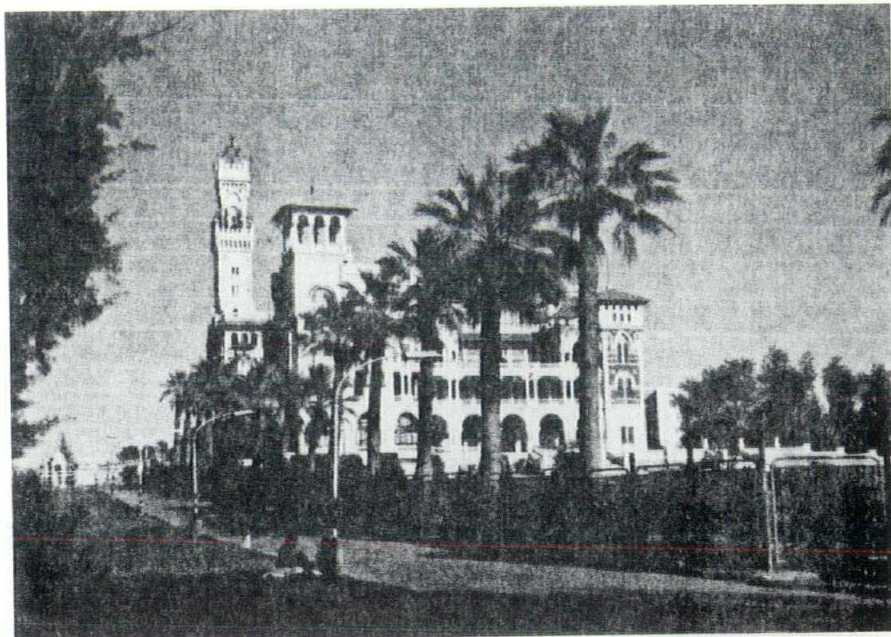
by Robert M. Fox, AIA
Fox Hawaii Inc.

It is often difficult in countries with ancient historic resources for authorities to realize the value of more recent historical buildings. This is especially true in Egypt where some of the structures are four or five thousand years old. Therefore, many of the newer architectural treasures are demolished, particularly if they relate to previous colonial rule or unpopular monarchs.

One exception is a retreat known as Montaza, which was built by a recent Egyptian king and is located on the Mediterranean Sea in Alexandria, Egypt. The Egyptian government believes this particular walled estate is a national treasure which should be preserved.

Montaza was developed by King Farouk as his private pleasure enclave in 1926. He used a wide variety of eclectic and baroque design forms, interpreted by an Italian architect, to create his own fantasy on 325 acres of seafront property. This fantasy included King Farouk's palace, the presidential palace with a movie theatre, his personal train station, an island teahouse, a marina with a breakwater lighthouse, a whimsical bridge and a 20-foot high wall surrounding the entire parcel in the same architectural style. In 1981, Fox Hawaii was commissioned to create a Master Plan and to develop the site into a world-class resort destination area.

The climate in Alexandria is similar to that in Southern California. During the summer



King Farouk's palace in Egypt under restoration.

months, Alexandria is considered the summer capital of Egypt as the cool sea breezes make life much more bearable than the desert heat of Cairo.

The development program was to provide a revenue producing, viable resort project which at the same time restored the architectural integrity and character of the existing historic buildings, many of which unfortunately had been poorly renovated in previous attempts.

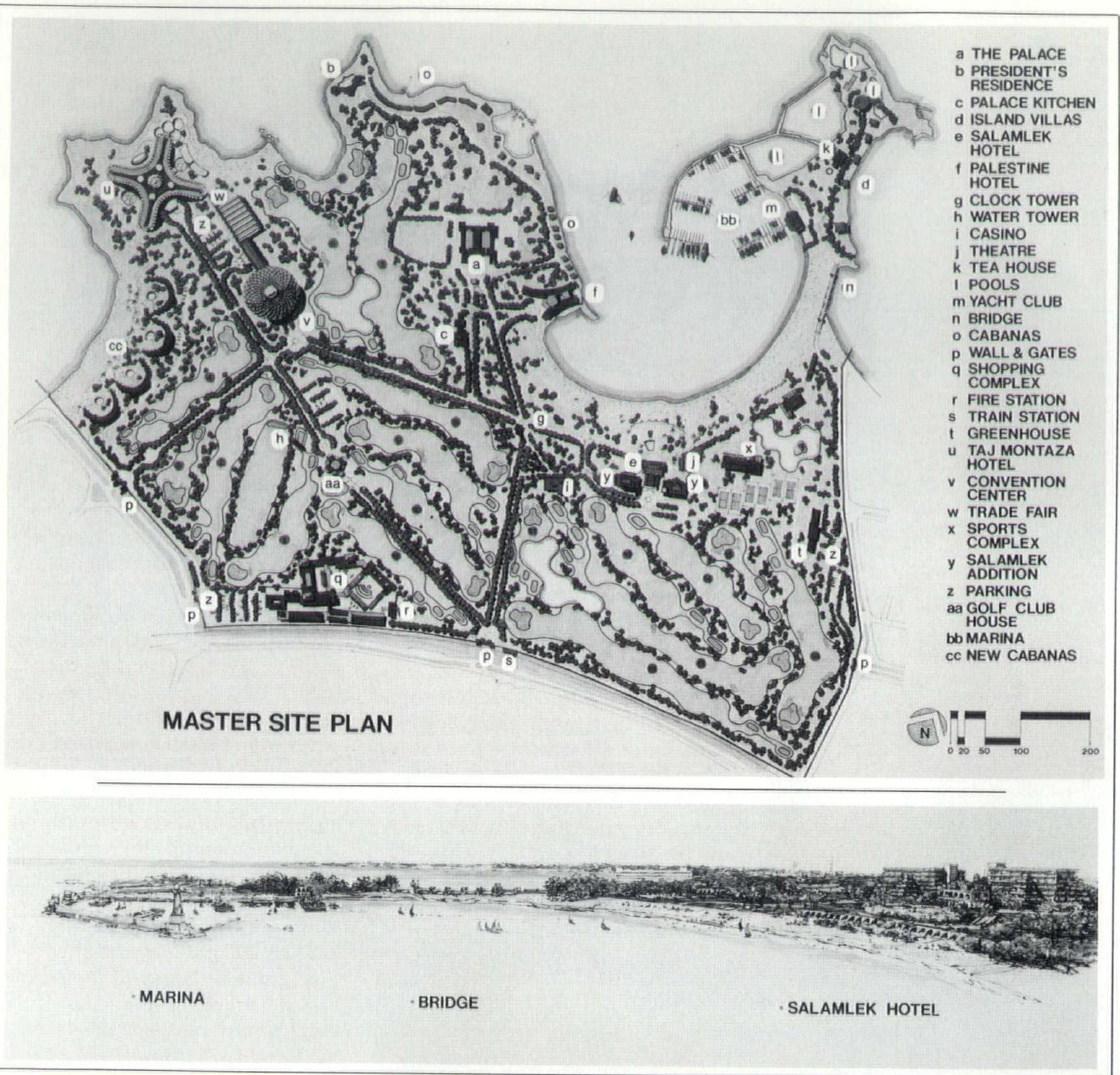
In order to preserve as much of the open space as possible, a major focus of the project was to design a golf course integrating existing elements of the formal gardens, much of which were in ruins. This allows the reconstruction of the gardens, while still allowing a revenue producing recreation base.

King Farouk's palace was renovated by the government to

be used as a multi-purpose building for catered functions and State affairs. The president's house, which had been converted into a 30-room hotel many years ago, was slated on the Master Plan to be restored to its original grandeur and used as special dining facilities for a new hotel to be constructed behind the palace. The once formal gardens and promenades which had become parking lots and driveways would now be restored back to their original use as major pedestrian spaces.

The existing boathouse, which had fallen into total disrepair, was slated to be converted into a yacht club which would service the marina, catering to the international yachting community sailing the Mediterranean.

The original electric power station was designed to be



(Above) The Master Site Plan integrating resort recreation use with the architectural heritage of Montaza. (Below) A rendering of part of the project designed as a world-class resort destination.

converted into a casino utilizing the generator room as the main gaming area.

The barracks which housed the King's palace guard consisted of two and three story military buildings surrounding large courtyards. The facility was designed to be converted into an international *Souk* or bazaar which would provide a wide variety of Egyptian and Middle-east goods for sale, as well as extensive eating experiences.

The development was to recapture the whimsical fantasy

of King Farouk's original concept integrated into a resort destination of world-class stature. The restored components of the original development provided an opportunity to participate in a historic site while enjoying the recreational amenities and fine climate inherent at Montaza.

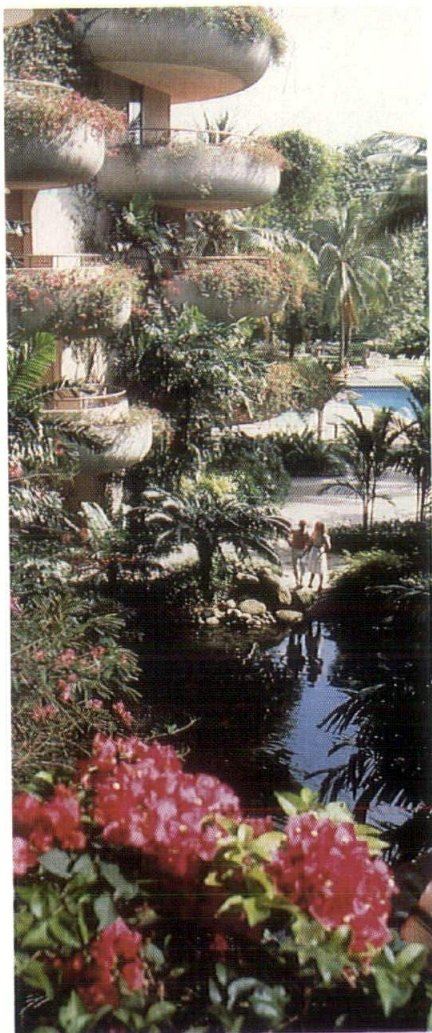
The government initiated the project setting the restoration guidelines as a significant departure from previous government developments in Egypt which include structures that are only 60 years old.

This project is a historic benchmark, and its success hopefully will enable government support of other major preservation projects of Egypt's varied heritage. **HA**

Robert M. Fox, president of Fox Hawaii Architecture and Planning firm, has done extensive resort, commercial and preservation projects on a global basis. Montaza Master Plan and Preservation Plan is an example of this overseas work.

Singapore — Asia's Garden City

by Raymond F. Cain, FASLA
Belt Collins & Associates



Few countries are as densely developed as Singapore. It is truly an urban environment—and yet it is one of the most landscape-conscious cities in the world. Every street is lined with trees and shrubbery—even the light poles are wound with wires to encourage colorful vines. No other metropolitan area in Asia is more deserving of the title “garden city.”

Singapore's hotels are famous for their lush landscaping and tropical environments. They were established as “garden oases” to be enjoyed by the harried businessman after each hectic day or the tired tourist after a day of shopping. The various hotels compete with each other not only in providing the usual high

standards of service, dining, shopping and room amenities, but also with full offerings of recreational facilities such as tennis, squash, workout rooms and swimming pools. Many of the swimming pools are lavishly set within tropical gardens complete with waterfalls, fountains and Jacuzzies.

The island nation of Singapore has spent many years improving its overall infrastructure, housing its people and, basically, getting the society and related environment as modern and well organized as possible.

Singapore has been very successful in making everything clean and green. The relatively high standard of living results in warm and friendly people. Unfortunately, in the zeal to modernize and improve the environment, some of the ethnic charm and rustic character of the original city has been displaced with “urban renewal.” The old shop houses and the many smells of crowded bazaars of Chinatown, little India and Bugis Street have been replaced with high-tech, air-conditioned malls. For the average Singaporean, this is probably great progress, however, for those interested in attracting tourists to this island, there is a problem.

Tourism in Singapore is declining because travelers believe there is little opportunity for sightseeing and interesting attractions. Hotel and tourism planners are moving now to “revitalize” portions of Chinatown and edges of the Singapore River. Additionally, a



In Singapore, lush landscaped environments are enjoyed by visitors to the Shangri-La Hotel (top photo) and the Sheraton Towers (lower photo). All photos by Belt, Collins & Associates

Chinese theme park is being developed. Plans are also underway to preserve many old buildings, such as the famous Raffles Hotel.

After years of emulating western-style urbanization, the government of Singapore is now looking for its own Asian character, prompted by the responses of the tourism market. It is difficult to carry out such traditional architectural themes for many aspects of the modern urban construction.

Recognizing this problem, as well as the need to project an image of tropical splendor is why many of the Singapore hotels have tended to emphasize the landscape environment and associated waterfalls, fountains and pools. The obvious benefits from the extensive landscape is cooling shade and reduction of temperature. The sound of water also adds to the psychological effect of coolness to help offset the intense heat and humidity of Singapore. **HA**



(Top photo) The landscaping design of the Outrigger Canoe Club in Honolulu beautifully utilizes many of Hawaii's unique tropical plants. In the international arena, Belt, Collins & Associates provide landscape architectural services to resorts such as the Mena House in Egypt (lower photo).

Capital Improvements Stressed for Waikiki

Waikiki sets the first and lasting impression for many of Hawaii's visitors. With 33,000 hotel rooms, 438 restaurants, 900 shops and boutiques and a work force of 30,000, there is no doubt about the tremendous economic impact this beachfront

community has on the state.

Therefore, steps must be taken to ensure a "safer, more attractive Waikiki we all can be proud of," said Sophie Ann Aoki.

Aoki, executive vice president of the Waikiki Improvement Association (WIA), was the guest

speaker at June's monthly general membership meeting of the Hawaii Society/AIA. The dinner meeting at the Hale Koa Hotel June 19 was sponsored by the Hawaii Architect Committee, chaired by Patricia Shimazu.

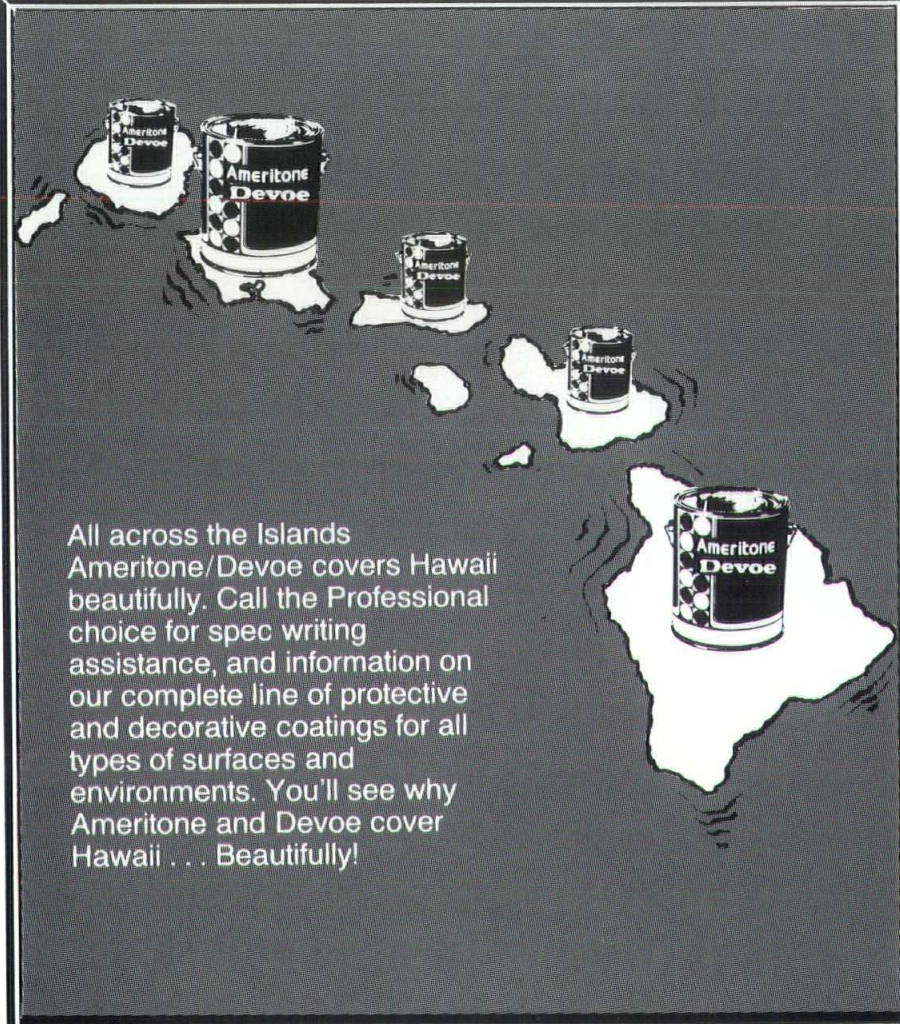
Aoki told the audience of about 50 architects, associates and guests that the WIA is pushing for major capital improvements in the area to keep up with renovations of no less than 15 Waikiki hotels. The \$11 million Kalakaua Avenue road widening project is one example; it is the first improvement in 30 years for that major traffic corridor, she said.

WIA also supports a witness return program, whereby tourists who are victims of Waikiki crime return to Hawaii at government expense to secure prosecution of the offenders. The association has called for better lighting and increased police visibility in the area, she said.



Nuisance abatement, including pornography, prostitutes and pedicabs, is also a concern of the association, she said. When members of the audience expressed surprise at the inclusion of pedicabs on that list, Aoki explained that many Waikiki residents have expressed concern about hazards to traffic safety and the overcharging of fares by some drivers. The pedicab business needs to take better steps to regulate itself, she said.

One of the most important improvements that must occur, however, is broadened communication among the diverse interests of Waikiki, she said. Those who live, work and/or play in Waikiki must let themselves be heard by their elected officials, so that "Waikiki continues to set the pace for other resort destinations."

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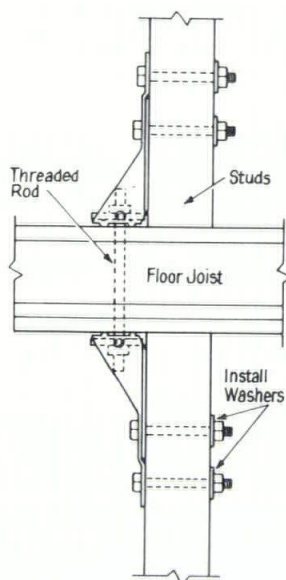
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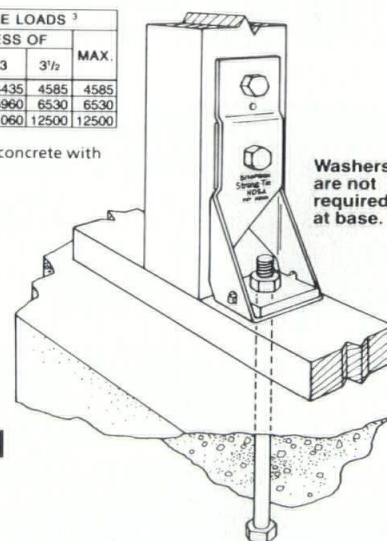


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Baha'i House of Worship in New Delhi

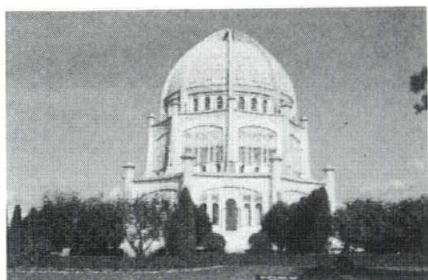
The Baha'i House of Worship in New Delhi was dedicated in December 1986. Hailed as the Taj Mahal of the 20th century, it reflects man's eternal passion to translate the spirit of a

faith into architecture.

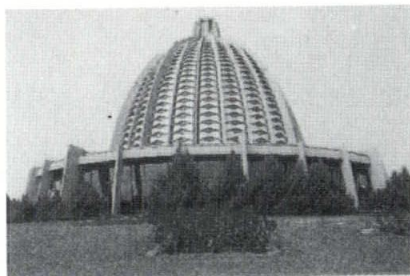
The elegant white marble building shaped like a lotus blossom is situated on a small hill on the outskirts of New Delhi. Architect Fariburz Sahba chose the lotus blossom design because

it has been the symbol of purity in India for centuries and has been a central image in earlier religious traditions such as Hinduism and Buddhism.

The magnificent building has attracted the attention of the



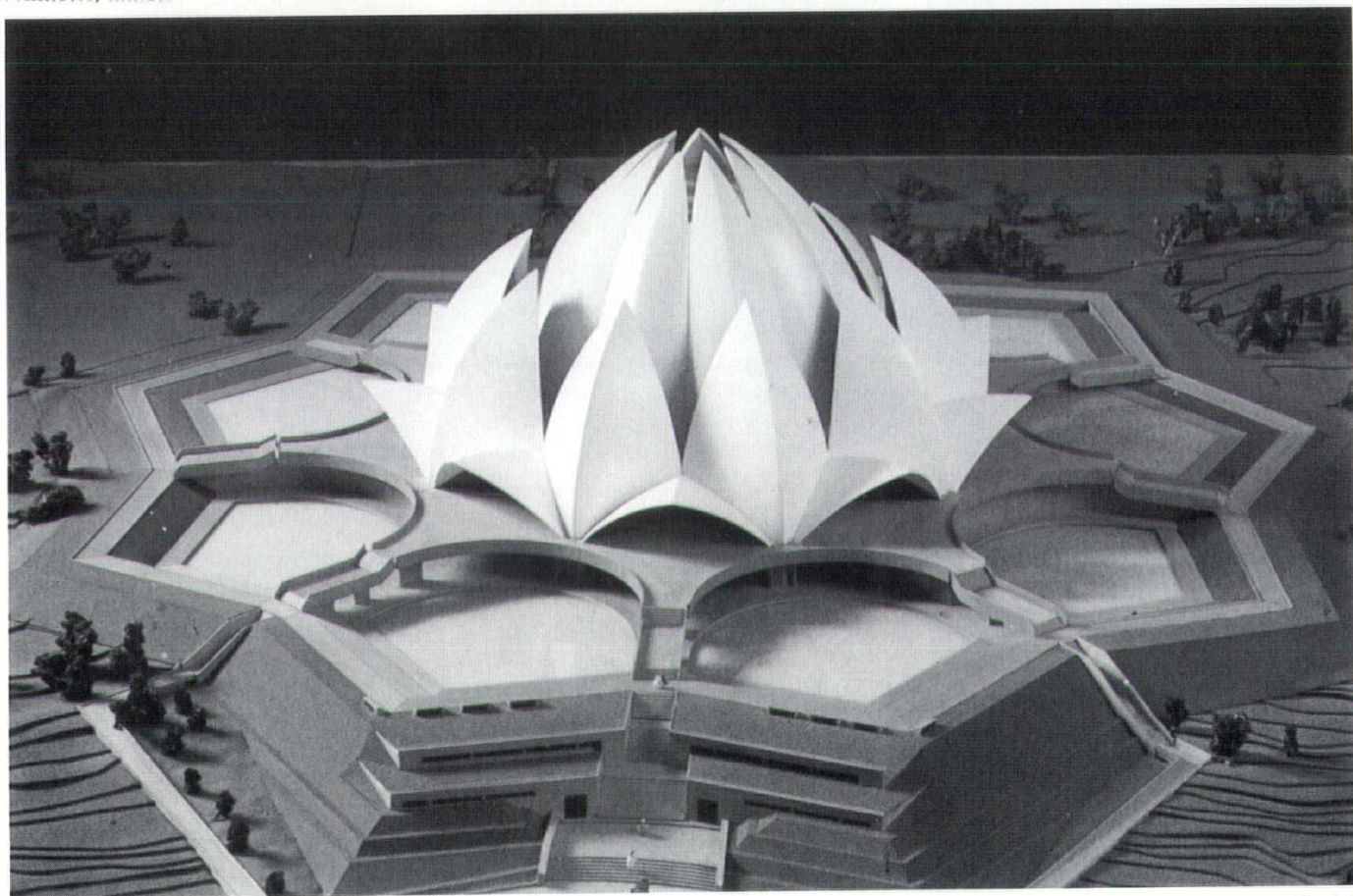
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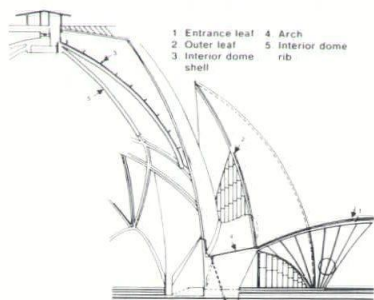
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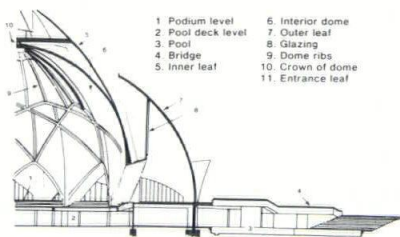
Around the world (top photos), Baha'i Houses of Worship are designed to express the relationship between man and God. In New Delhi, the lotus blossom design (above) was a technological triumph for the Indian construction industry.

architectural world. Sahba's lotus design has a central dome surrounded by three rows of nine petals each. Encircling the building are nine pools suggesting leaves which also provide the structure with natural cooling.

In order to achieve the highly complex construction requirements of the design, two-and-a-half years were spent computing the main coordinates of the lotus shape. There are no straight lines in the entire building—everything is in curvature. By combining high technology with the centuries old Indian techniques of construction, the complicated problems of the design were overcome at a minimum of cost.



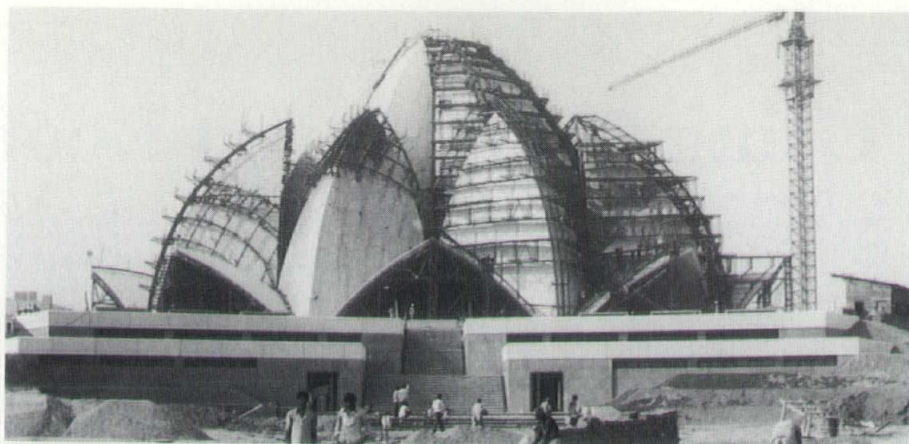
Section through entrance leaf and interior dome



Section through inner and outer leaves

The result has been a triumph for architect Sahba and the project's structural engineers. In the development process, a unique continuous concreting procedure was used for the construction of the "petal" sides of the building.

The Baha'i House of Worship is also a triumph for the Indian construction industry. The marriage of old and new technology, the use of craftsmanship and computers, has given employment to 800 men and women, many of whom were familiar with only manual tools and unskilled methods. HA



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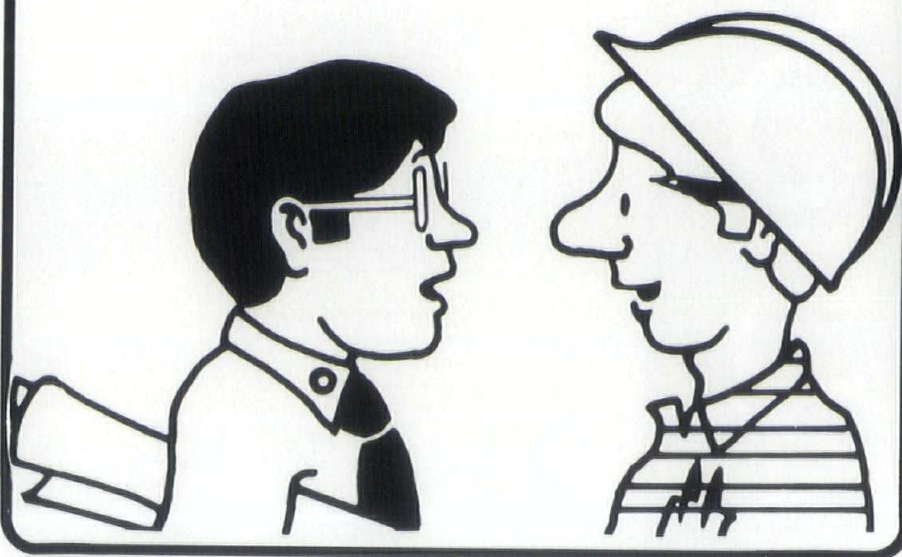
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Using Copper as a Roof Expression

by Daniel G. Chun, AIA
Kauahikaua & Chun/Architects

It can be said with some certainty that thatch was the roofing material with the longest period of use in Hawaii. Judging from contemporary etchings and photographs, wood shingles were the choice of 19th century builders. For expensive architecture of that time, imported slates were preferred if we look at Iolani Palace, the Royal Mausoleum, and the original Bishop Museum roofs. The 20th century has brought greater choice of roofing materials. Copper does not seem to have appeared until after the 1920s so it is difficult to assess its purported long life-span under

Hawaiian conditions.

Bishop Museum copper roofs replaced the original slate ones around 1935. Alexander Spoehr, the museum director who had the Planetarium domes built, was a Dane who was inspired by the numerous copper roofs of Copenhagen with their beautiful verdigris color.

The reasons for the use of copper roofs in other parts of the world are also applicable to Hawaii:

- Rainwater runs swiftly off the copper face and evaporates quickly from the very hot surface. This helps to account for its legendary watertightness.
- Copper is capable of roofing

over and flashing nearly any shape or condition. This makes it an ideal material in regions where roof-expression is a factor in architecture.

- Due to its long service life, copper is the material for difficult to reach areas where future scaffolding would represent a significant cost factor when reroofing.

- Owner and contractor acceptance is good. Copper shines like a new penny when under construction and looks good with that unpainted redwood and fresh concrete. Later, the deep brown color complements the finished buildings. Age gives it

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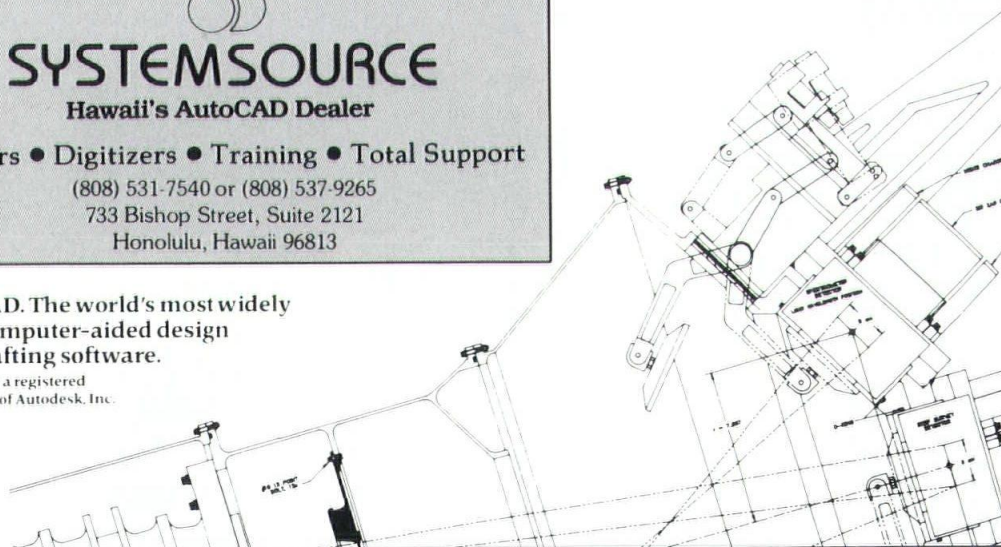
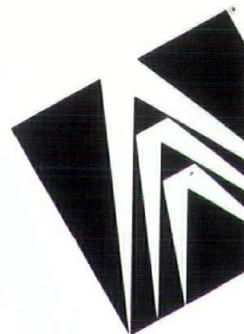
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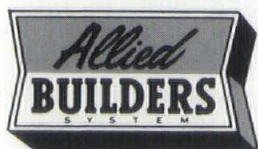


ALLIED TEAMWORK: performs major surgery on a well-known medical clinic

In 1966, when Kaneohe's Kaiser Koolau Medical Clinic was built, it was state-of-the-art. But times changed quickly, and the function of medical facilities changed with them. Twenty years later, the clinic had new goals and needed a new design image as a center for wellness as well as illness. They also needed greater visibility from the road.

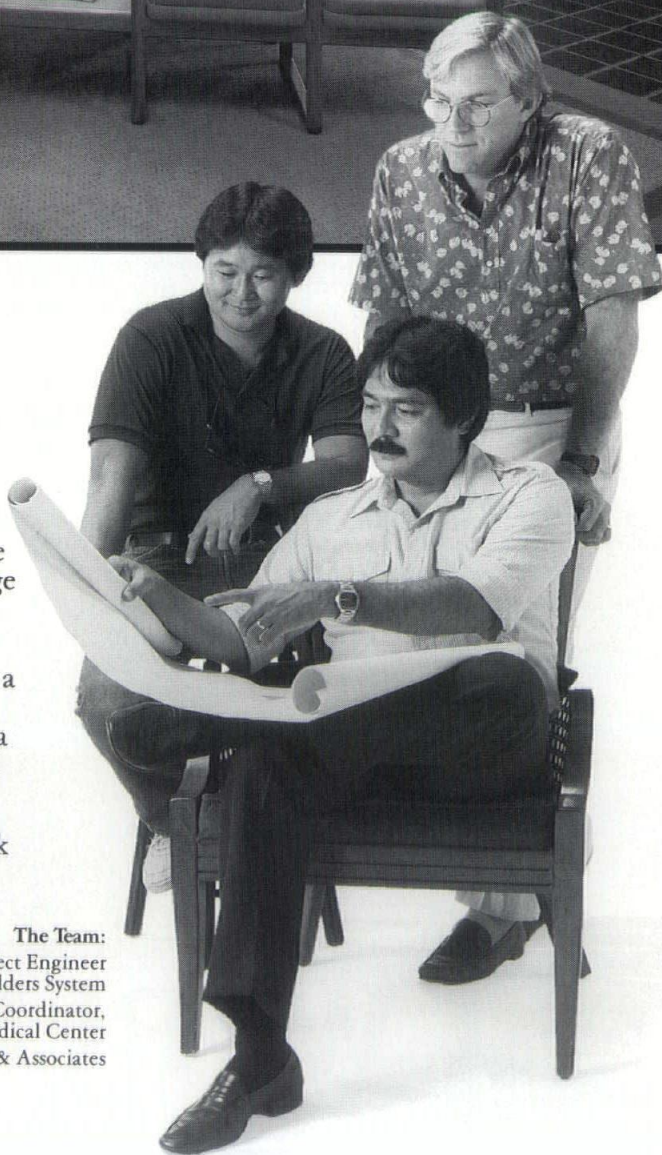
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The Team:

Ed Sakai (L), Project Engineer
Allied Builders System

Roy Sesoko, Facilities Project Coordinator,
Kaiser Medical Center

Philip White, Architect, White & Associates

that patina which we see on many distinguished works of architecture.

Our firm was recently called upon to reroof the Liliuokalani Protestant Church in Haleiwa. Founded in 1832 by John and Ursula Emerson, the present church had been housed in several thatched sanctuaries and an 1891 wood-shingle roofed building.

In 1961, architect Theodore Vierra designed the present church which was built with terne-metal roofing. Terne is a lead-coated steel that is no longer sold for use in Hawaii. Haleiwa is famous for the salt spray of *Puaena* and this brine-laden air combined with little rainfall caused major rust damage and subsequent leaking. Destructive Hurricane Iwa then tore sheets of terne metal from the steeple.

Investigation revealed that the roof framing was designed to support lightweight metal roofing. Existing wood battens and insulation were in good

condition and spaced for metal roofing. In addition, the eight-sided 53-foot tall steeple required waterproofing outside and inside the louvered belfry. Various alternatives were explored and copper proved to be the best and the most expensive. Ultimately, the congregation decided in favor of copper due to the long life expectancy of the church.

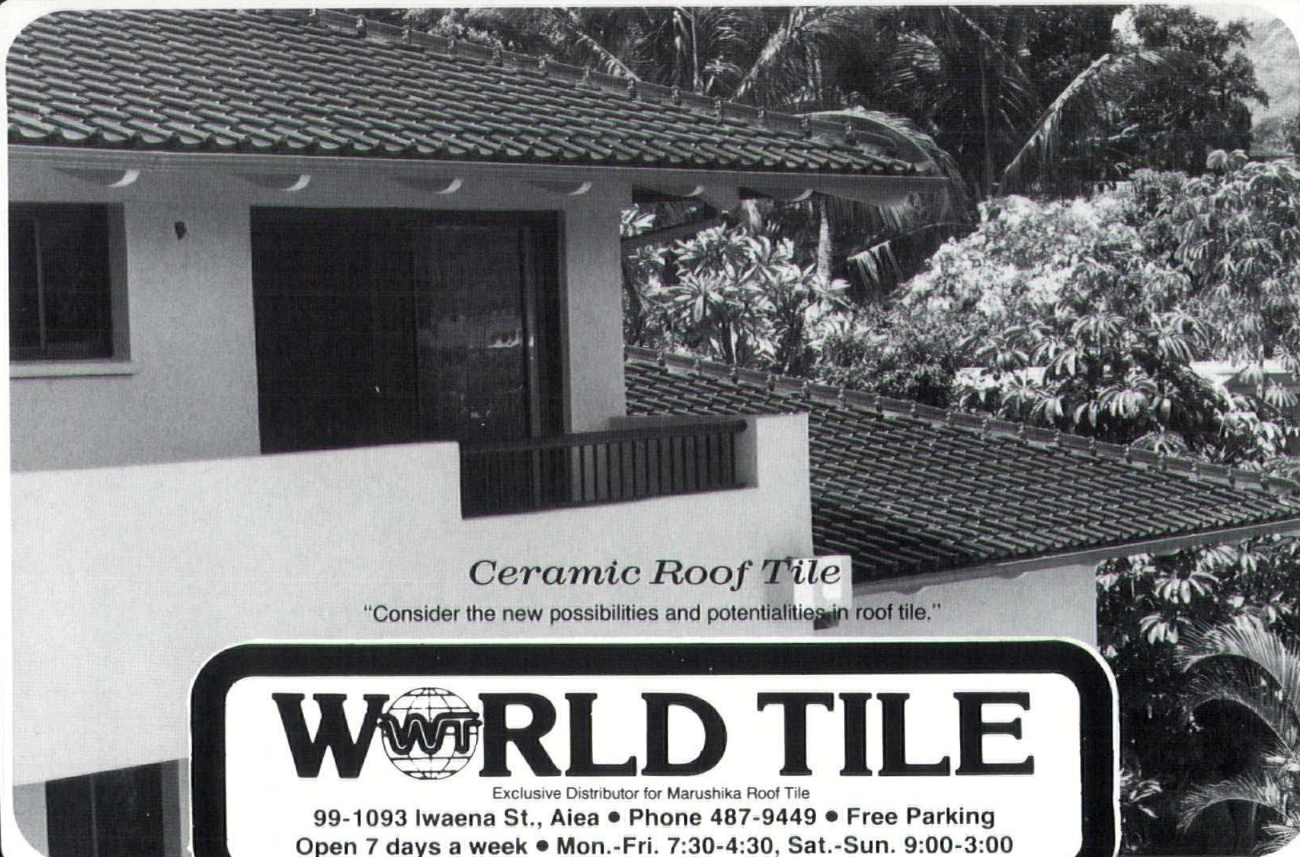
In addition to the standing seam copper roof, a new copper weather vane was designed by us and fabricated in Massachusetts. The weather vane depicts a half life-sized *iwa* or frigate bird carrying a fish in its mouth. In Christian iconography, the fish is a symbol of Christ. The *iwa* bird commemorates the name of the Emerson house from which Haleiwa took its name and, coincidentally, the hurricane which prompted the repairs. The versatility of this metal enabled us to roof the building and to fabricate a meaningful ornament as well.

Use of copper for roofing is not

without liabilities. Noise can be a factor especially when passing showers quickly cool the metal. Sharp contracting sounds are later followed by noise from the expanding metal heating in the sun. It is a toxic material. We notice that it fends off heat-attracting black algae like that found on Spanish-style tile roofs in wet locations around the Islands. Copper roofing will stain surrounding materials if not properly guttered and channeled away. Gutter straps appear to be the conduit for many wall and pavement stains.

Artificially-induced patina can best be characterized as "erratic at best." The process must be specified in the paint section of the Project Manual. It has been done on very clean cool copper. Therefore, the work has to be done either under cover or in early morning or evening hours. Light sandpapering helps the acid to bite, while some painters pour salt water on the metal to induce

(continued on page 39)



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Coastal Construction Developments

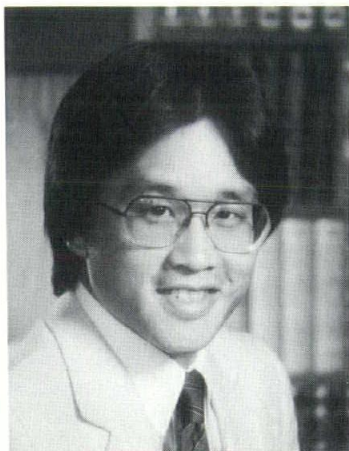
by David M. Louie, Esq.
Case & Lynch Attorneys At Law

The natural beauty of Hawaii's coastline provides an ideal setting for new construction projects envisioned by developers and brought to life by architects and engineers. However, the beauty of the coast, like the Venus fly trap, may harbor unforeseen legal dangers for the unwary.

There are two unwritten laws to watch for: 1) Murphy's Law, i.e., if something can go wrong, it will; and 2) The Law of the Jungle, i.e., it's a jungle out there, and if something does go wrong, you may get sued and be held liable.

Design professionals should seek to avoid the consequences of

these laws by being aware of the necessary permit process and the applicable legal definitions and doctrines; and by acting



David M. Louie, Esq.

professionally and taking reasonable steps to protect themselves.

The Permit Process

A design professional must know the requirements of all governmental authorities whose jurisdiction is impacted by the project. Failure to comply with all necessary requirements may result in catastrophic consequences, such as critical timing delays, loss of building permits, stop work orders, injunctions and/or lawsuits for damages.

Federal Authorities. The U.S. Army Corps of Engineers must authorize any excavation or

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construction in "navigable waters." 33 U.S.C. §403. Approvals may also be needed from the Environmental Protection Agency and the U.S. Fish and Wildlife Service, if the project will have an effect upon wildlife and marine resources.

State Authorities. Hawaii's Coastal Zone Management Program is defined in Chapter 205A, Hawaii Revised Statutes (H.R.S.). Coastal Zone management is accomplished through a network of both State and County authorities. Applicable State authorities may include the Land Use Commission, Board of Land and Natural Resources, and the Department of Transportation, Harbors Division.

City and County Authorities. County approvals are necessary for development and setback variances within Special Management Areas (SMA) designated by each County, which generally include all coastal lands along the shoreline.

Caution! Simple approval of permits may not always be enough. A grant of an SMA permit can be later overturned by a court where the findings required by the statute are not made by the granting agency. *Mahuiki v. Planning Commission*, 65 Haw. 506 (1982).

Two Important Legal Definitions

Design professionals should be aware of two important definitions in the coastal construction area.

"Shoreline." The "shoreline" establishes the seaward boundary of any coastal property. It can thus affect ownership, value, setback requirements and the jurisdiction of various agencies. Chapter 205A, H.R.S., defines "shoreline" as "the upper reaches of the wash of the waves other than storm and tidal waves, usually evidenced by the edge of vegetation growth, or the upper limit of debris left by the wash of the waves." The Hawaii Supreme Court has ruled that where the wash of waves is marked by both

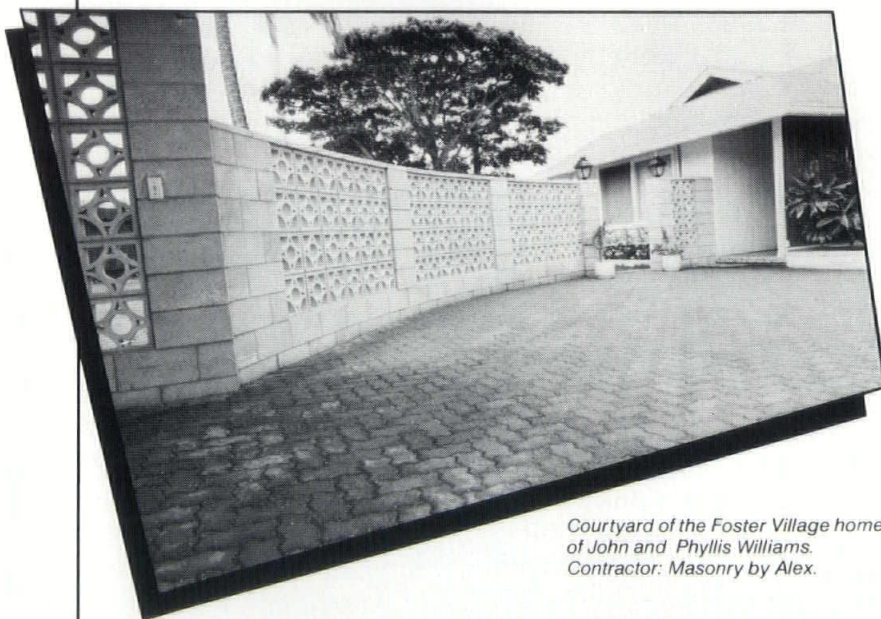
a debris and vegetation line, the vegetation line is presumed to be the boundary. *County of Hawaii v. Sotomura*, 55 Haw. 176 (1973). Where no vegetation or debris line exists, resort has been made by some agencies to either a presently existing manmade obstruction or a survey as to the highest wash of the waves.

The *Sotomura* Court also ruled that where the vegetation line is eroded, the land thus lost returns to the ownership of the State.

However, it is uncertain whether this is still the law, since that decision was later declared unconstitutional by the Federal District Court of Hawaii, *Sotomura v. County of Hawaii*, 402 F.Supp. 95 (D.C.Haw. 1975), and the State did not appeal the adverse decision.

"Navigable Waters." The definition of "navigable waters" establishes jurisdiction of the Corps of Engineers and other
(continued on page 42)

CONCRETE IDEAS



Courtyard of the Foster Village home of John and Phyllis Williams.
Contractor: Masonry by Alex.

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Construction in Hawaii — A Study

Thanks to million-dollar government contracts and major hotel renovations, Hawaii has recovered from a four-year slump and is presently enjoying a construction boom, an economist said recently.

But it's not all good news. Despite an improvement in mortgage rates, authorizations for residential construction projects were down, forcing existing housing prices up, he said.

David Ramsour, chief economist for the Bank of Hawaii, said that construction rose dramatically in 1986, with project completion levels reaching \$1.8 billion, a 26 percent increase over 1985. Construction completions recovered their level of 1981 and fell just short of the 1980 peak, he said. Ramsour was the guest speaker at Bankoh's annual "State of the Construction Industry" Breakfast, held July 13 at the Plaza Club.

The primary cause for the recovery was not private construction but public construction, which is "up above any level than it was before," said Ramsour. Drawing a chuckle from the audience, he called the sharp increase "coincidental" with election year.

An upturn in completions for commercial and industrial projects is also expected this year. Permits for hotel construction and renovations rose by an incredible 800 percent, and although office construction permits were down, with Hawaii's "good economic condition," an increase in that area is expected as well, he said.

Hawaii's residential construction industry is being held back by the lack of availability of urban land. As long as land is limited, residential size will decrease and costs will

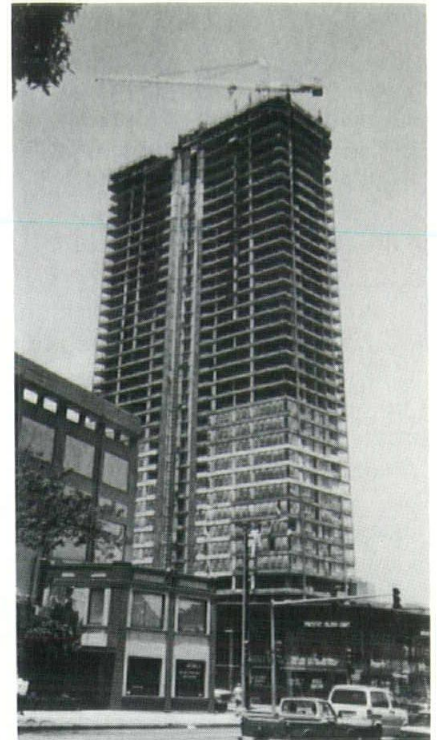
increase, he said.

"It appears that we're well ahead of the rest of the U.S. in costs per square foot," he said.

The construction industry's job count rose 26 percent, with a current workforce of 21,500. Ramsour said that the job count level is perhaps the most accurate indicator of the immediate state of the industry.

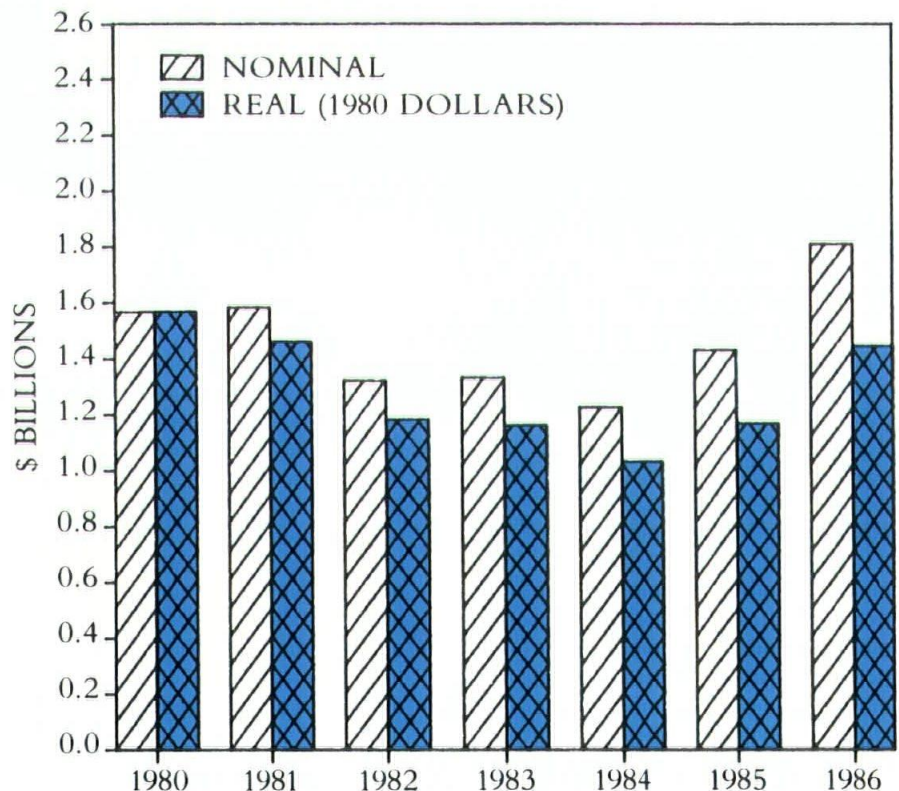
To forecast trends in Hawaii construction is difficult, he said, because even one major project, for example, West Beach, has a major impact on total construction levels. However, based on current conditions, he projected total construction for 1987 to reach \$1.91 billion, a 5.7 percent increase over 1986.

"We will achieve a lot just to hold even" to 1986 levels, he said.



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Metal Roofing a Popular Choice

by Mike Durant, Manager
Earle M. Jorgensen Company

Metal roofing is a material with a long history that is currently enjoying a renaissance due to new coatings, finishes and designs.

Historically, the majority of metal roofing has been made of galvanized steel. Recently a new coating of zinc and aluminum alloy has gained widespread acceptance and has shown to give double the life expectation of zinc coated steel. In applications exposed to salt air, aluminum has proved to be the best economic solution. The alloy best suited for this situation is 3004 H32 Alclad.

Paint coatings used have improved considerably over the years and now give 10 to 20 years of maintenance free service. The best coating now available is a Kynar 500 (Fluoropolymer) although the SMP's (Silicone Modified Polyester) have improved considerably over the past few years.

Other paint systems available, particularly the polyesters, do not provide acceptable performance in Hawaii's climate. Generally, paint coatings are rated on their ability to hold color and resist weathering. While they do provide some additional corrosion protection, proper selection of the base metal is the most important factor.

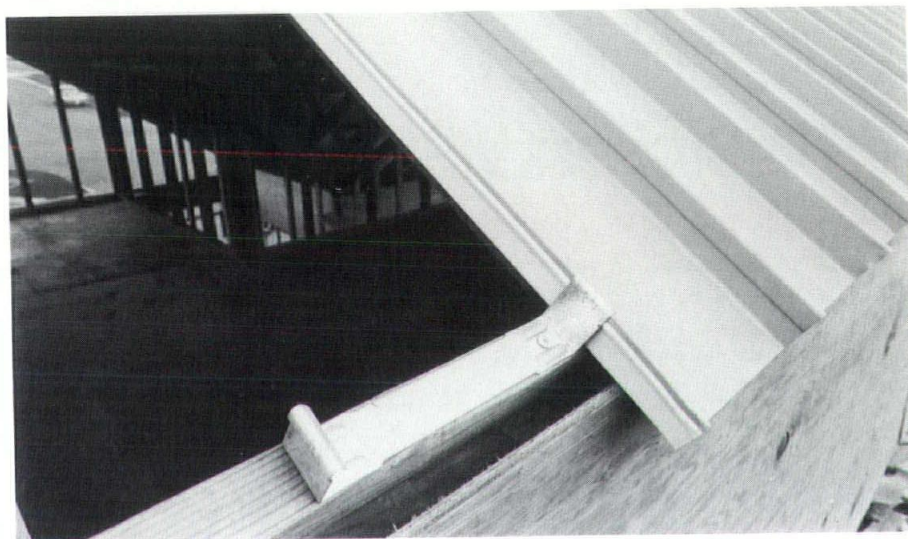
Much of the recent popularity of metal roofing is due to the advent of the "clip down" systems. These are factory pre-fabricated standing seam roofing systems. The time-honored standing seam roof is now available at an economical price. The clip down systems have overcome the two biggest drawbacks of traditional roofing

sheets. First, they allow for expansion and contraction and second, they do not puncture the sheet. As a bonus, the fasteners are hidden giving a much more finished appearance.

Recently there has been a considerable amount of converting or retrofitting of built up roofs to the clip down metal roofing systems. The pre-engineered systems include metal framing to convert the flat roof

area to a pitch of 1:12 or greater. The existing built up roof need not be removed and the metal roofing is applied to the new framing.

As with most products, proper design and specifications are important to obtain a quality product and installation. When used properly, metal roofing has proved to be one of the most trouble free roofing materials available. **HA**



(Top photo) A close up look at a "clip down" metal roofing system being used at the Mililani Town Center (above) now under construction in Central Oahu.

HS/AIA Golf Tournament Set

With more than \$1,500 in prizes to be awarded, the second annual Hawaii Society/AIA Golf Tournament will take place on Friday, Aug. 28 at the Pearl Country Club. A shotgun start is set for noon with check-in at 11 a.m., according to tournament committee chairman, Art Kohara.

Entry deadline for this popular HS/AIA event is Thursday, Aug. 13. Entry fee for each team of three players is \$175. Total team

handicap cannot exceed 60. Entry forms and further information are obtainable at the HS/AIA office, 545-4242.

This year's golf tournament committee members also include Tom Agawa, finance; Mike Miki, posters and signs; Mark Nakahira and George Nishimura, prizes; Al Yap, pairing and rules; Maurice Yamasato, banquet and awards; and Rodney Yamamoto, registration and scoring.

**Any firm interested in
being a sponsor or entering a team
for the 1987 HS/AIA Golf Tournament
is encouraged to call 545-4242.**

Second Annual Golf Tournament



Pearl Country Club
Friday, August 28, 1987

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The Aberdeen Marina Club was designed by Fox Hawaii as a strong architectural statement reflecting a nautical/recreational image while integrating function and form into a harmonious, flowing design.

The playful forms of the curved planter balconies and trellises enhance the sculptural feeling and provide a base for extensive landscaping.

When viewed from the marina, the orderly form of the building provides a strong contrast to the bustling chaos of Aberdeen Harbor.

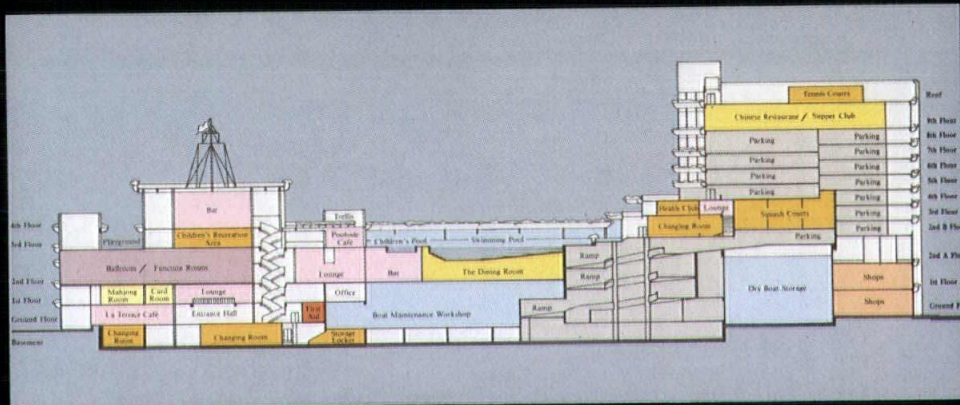
The project program combined diverse components to satisfy the marina functions and provide a comfortable environment for members and guests. The Marina Club consists of an elegantly appointed yacht club facility and a fully-serviced marina with approximately 500,000 sq. ft. of building, 300 boats in dry storage and 300 mooring slips.

Extensive use of roof gardens for recreation and landscaping was utilized as a unifying element and to maximize the aesthetic and functional use of space.

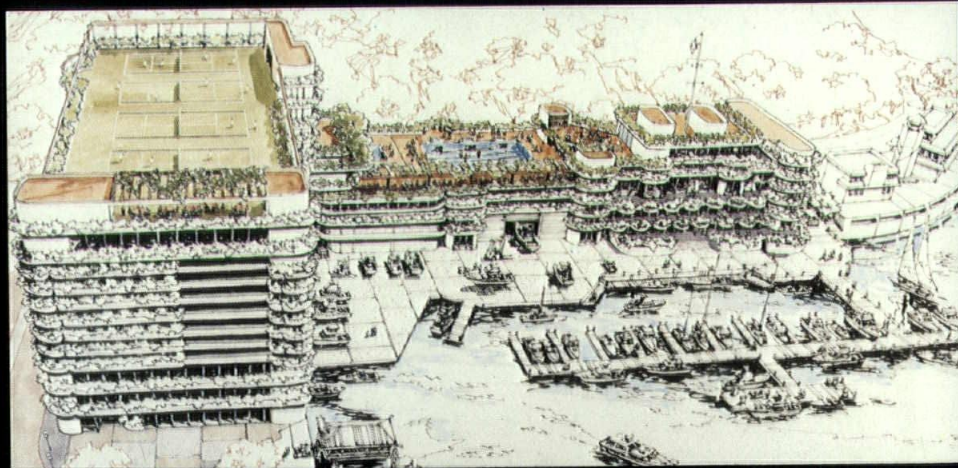
The project was a team effort by the architects/planners and landscape architects, under the direction of the owners to create a landmark marina and recreation facility with an emphasis on world-class yachting.



ENTRY PORTE COCHERE



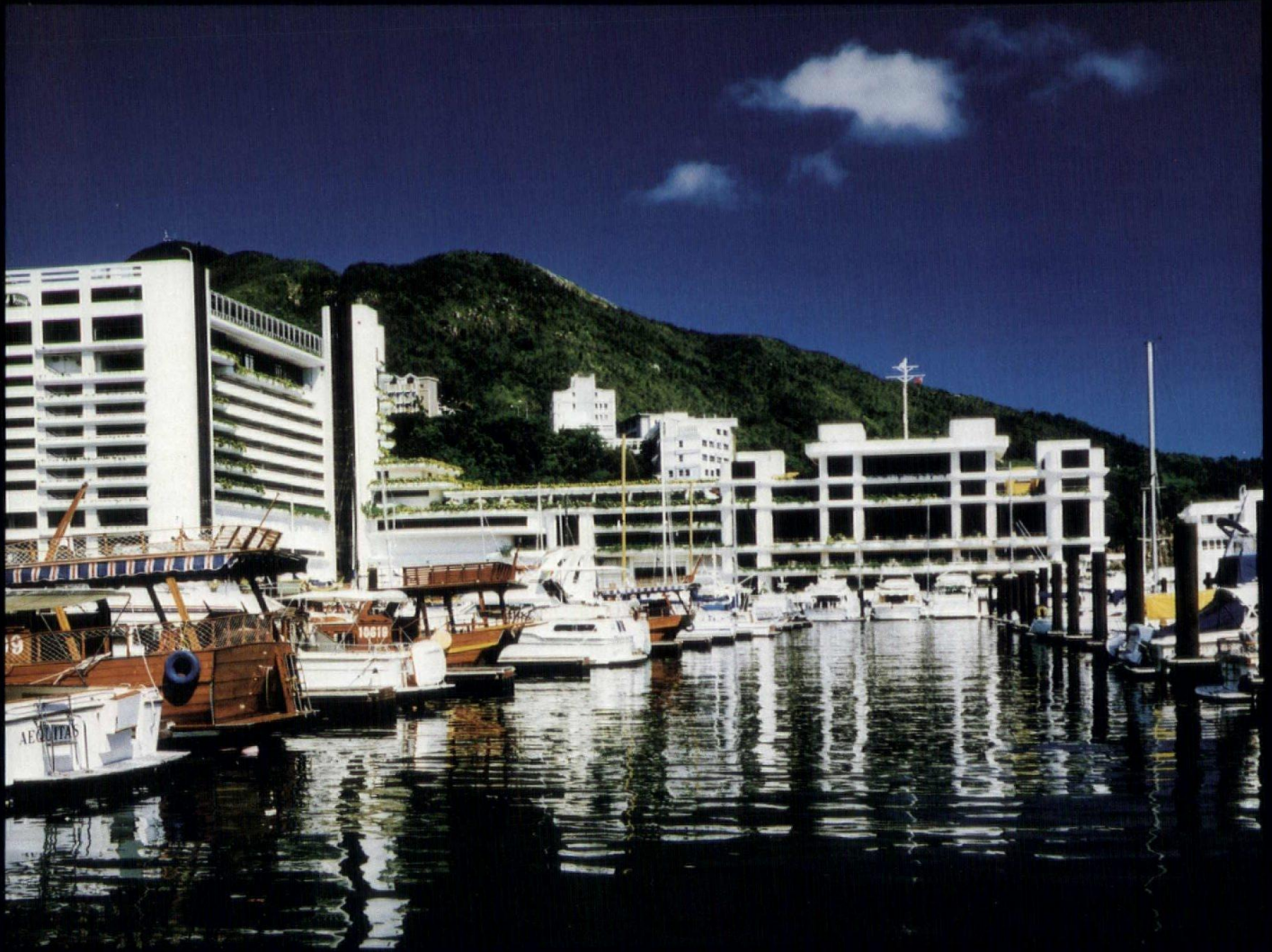
BUILDING SECTION



VIEW OF BUILDING FROM ABOVE

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JURY COMMENTS:

"The design solution to this very tight and restrictive site and the intriguing 'reflection' of the yachting environment has won this project a design award."

"Despite the complicated program which combines many activities and functions on a limited site, the project conveys a unified appearance."

"Like a jigsaw puzzle with a thousand pieces, the program and site required expert planning to produce more than a first rate yacht club."

CREDITS:

Architects

Fox Hawaii Architecture & Planning, Hawaii
Arthur C.S. Kwok Architects & Associates,
Hong Kong

Client

The Kuok Group of Companies, Hong Kong

Contractor

Shui On Construction Company, Ltd., Hong Kong

Landscape Architects

Belt Collins & Associates, Hawaii

Interior Designer

Paul Leese Interior Designer, Hong Kong

City's Project of the Year Award

Mayor Frank F. Fasi and City Council Chairman Arnold Morgado recently invited nominations for one of Honolulu's most important awards, the Project of the Year. This annual award recognizes an outstanding development on Oahu and is sponsored jointly by the Mayor and the City Council.

A committee consisting of an interdisciplinary panel and members of the City and County government will choose the top winners. One first place winner and up to six honorable mentions will be selected.

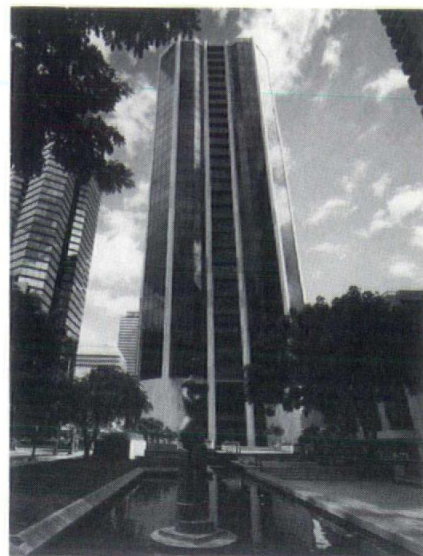
The 1986 inaugural year winner was the Tamarind Park/Bishop Square development which replaced the Alexander

Young Hotel in downtown Honolulu.

Nominated by the Downtown Improvement Association in the category of Public Open Space, Tamarind Park/Bishop Square was selected for representing the City's high ideals for a downtown park and open space, as well as for providing landscaping, art and pools of water for the full enjoyment of downtown workers, residents and visitors.

Northwestern Mutual Life Insurance Company owns the development. Architects were Chapman Desai Sakata Inc., and Franklin Gray & Associates. The James C. Hubbard Corporation was the landscape architect.

Five honorable mentions were



In 1986, the Project of the Year award winner was the Tamarind Park/Bishop Square development for "Public Open Space." Photo courtesy of Chapman Desai Sakata, Inc

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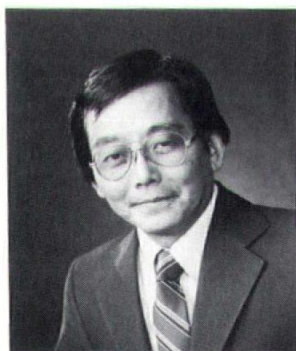
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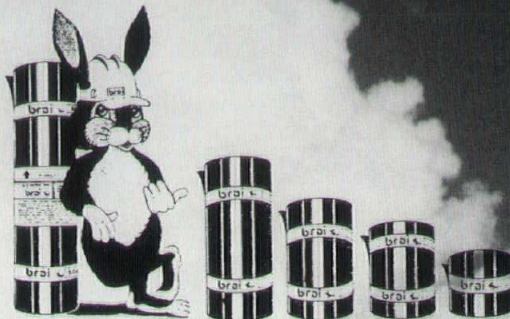
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selected in 1986. They were the Nuuanu Court in Chinatown (Excellence in Physical Development and Historic Preservation); Ma'ili Ohana Self-help Housing Project (Housing); HMSA Building (Energy Conservation); the Gentry Waipio development in Central Oahu (Housing); and Honolulu Tower I (Physical Development and Housing).

Public and private projects within the City and County of Honolulu qualify for nomination. This year, the awards will be presented to both project developers/owners and designers.

The Project of the Year is intended to bring public awareness of projects that can make significant and positive contributions to the community and which demonstrate that City policies are not inconvenient constraints but valuable working commitments to a desired and attainable physical, social, economic and environmental future for all the people of Oahu.

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The Legislative Chamber (left) is designed with a distinctive double roof with a skylight, allowing for ventilation and natural lighting. The Judicial Building (right) will hold the courtroom and offices. Rendering by Henri J. Dessiaume

Design of New Capitol Complex Federated States of Micronesia

When the Federated States of Micronesia (FSM) selected Architects Hawaii Ltd. to design its new Capitol Complex, the requirements and challenges involved were extensive and many.

For one thing, the single complex was to be for all three branches of the government: executive, judicial and legislative. For another, its buildings and grounds were to represent the traditions of history and culture

the complex site, which was once a Japanese airfield that suffered heavy damage during World War II. The 190 inches of annual rainfall combined with the many bomb craters made the area an interesting design problem.

Still other obstacles included the average temperatures of 80 to 85 degrees Fahrenheit, the 80 percent humidity, the undeveloped nature of the site that necessitated all new infrastructure, the termites and the harmful salt air.

who is the principal in charge and designer of the Capitol. "We had the opportunity to create something new and different, in a new and unusual environment. There were obstacles, certainly, but there also was a lot of artistic freedom because we weren't bound by precedents."

Because the Palikir Valley is large and open, the complex design does not lack for spaciousness. The buildings were designed to be long and narrow to take advantage of the

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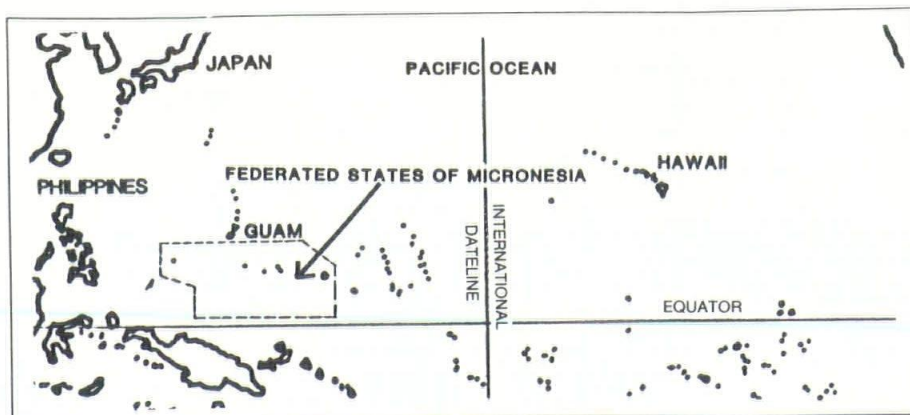
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West Coast Waterproofing recently installed nearly one-half acre of Cooley roofing on Hawaiian Electric Company's Kamoku Sub Station. Who would know more about saving energy than HECO?

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Map showing the location of the Federated States of Micronesia in the Pacific Basin.



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After studying all possible structural and modular construction systems, it was determined the one that best fit all practical requirements and aesthetic standards was combined pre-cast and cast-in-place. This allowed for fast erection of the roofs, allowing the workmen to be sheltered against the rain as early in the construction process as possible.

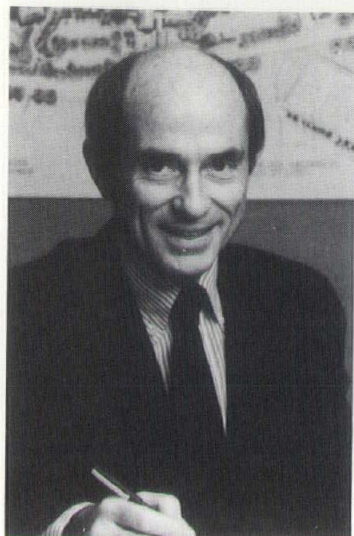
Simplicity was the keynote for design and function, and economy and ease of maintenance were prime considerations in selecting finishes and fixtures.

The buildings of the complex are on the high ground parallel to the valley, a setting that offers fine views of the surrounding hillsides and Mount Tamatamansakir.

"We made every effort to design the complex to fit in with its environment, keeping the buildings natural and functional," said Farrell. "We strove for openness, creating a group of smaller buildings instead of one big one, for instance, and allowing for large public spaces. Ventilation is mostly natural, with air-conditioning only in places where it's needed for books or equipment. Since power failures are not uncommon, we're relying a lot on natural lighting."

The complex is in two parts. The section for the executive branch, which is involved in the actual day-to-day operation of the government, is in the western part. The legislative and judicial branches, which are in the public eye more than the executive, share the eastern section. The legislative chamber, topped by a double-pyramid roof with a skylight, and the judicial building adjoin the same plaza, and both the chamber and the courtroom have circular forms.

Architects Hawaii also made liberal use of a local material, basaltic crystals. These crystals, forming "logs" up to 20 feet in length, were utilized in building on Pohnpei and Kosrae centuries ago. They were used for the



Joseph Farrell, AIA

legislative chamber walls and window sills; the colonnade of the walkways and the four main support columns of the chamber were built with simulated basaltic crystal logs.

"These are four mammoth logs," said Farrell, "symbolizing the four states of the federation in union, and supporting the central portion of the legislative hall."

Making the complex self-sufficient required the first deep water wells ever drilled on Pohnpei—a project that also will provide for anticipated future development in the Palikir Valley. The driving force behind the wells was Donald M. Austin of Austin, Tsutsumi & Associates, Inc., of Honolulu, the project's civil engineers and surveyors.

"Don Austin convinced the FSM to drill the wells instead of depending on surface water," Farrell explained, "and he came up with a winner. It's the best water in the world—clear, clean, tastes great and very abundant."

"There have been many challenges along the way," said Farrell. "But what has inspired us—aside from the obvious historic importance of this project—has been the enthusiasm and cooperation of the people of the FSM."

"This is their Capitol, after all, a symbol of their new path into the future." HA

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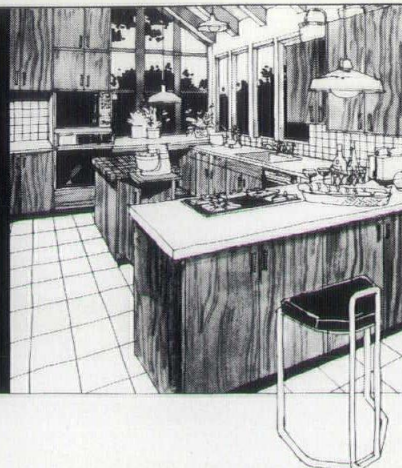
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A two-piece Chinese clay roof was brought in from the Orient for this picturesque house of worship, the Chinese Buddhist Hsu-Yun Temple. Installed by Honolulu Roofing, all of the tile and ornaments in this unique configuration were attached with cement. Photo by Philip Spalding III

Clay Tile Roofing Realities

*by Dennis B. Conway, President
Honolulu Roofing Company, Ltd.*

Roofing contractors are professionally challenged today by the design trend toward use of clay tile in topping-off commercial, resort and residential structures.

We believe that architects specifying such distinctive roofing materials should give careful thought to both the product and the installer they select. Here's why:

- Clay tile roofing is an art. As with slate, the workmen must be experienced. Presently, less than a handful of roofing contractors in Hawaii know how to install it properly.

- Hawaii is situated in a 150 mph hurricane zone. This factor, combined with our punishing year-round sun and saline atmosphere, accentuates

the need for an exact installation as well as a durable product.

We recommend that all clay tile roofing have a hot asphalt membrane installed on the wood deck beneath it. The fastening system should be corrosion-resistant, such as copper, brass or stainless steel. Remember, it's the membrane that ages. The wear and tear on the tile itself is minimal.

During our firm's 40 years in the Islands, we have had the opportunity to observe the downside of tile roofing — when we are called in to "fix things" after someone else's job sours. Like others in our trade whose workmanship and business acumen endures, we prefer to be involved from the start.

Not long ago, our roofing

division manager, Bill Christensen, was called in to examine a large custom residence where mission clay tile was specified. I'd like to relate to you the problem:

Specifications called for a membrane and then wood nailers followed by the tile. The general contractor contacted the roofer and asked whether the wood nailers go on before or after the hot asphalt membrane. The roofer said "before." So the general contractor installed all the nailers, as instructed, and the roofing contractor arrived after they were in place to install the membrane.

Barrel tile was specified. However, the tile pans did not fit between the nailers. Whereupon,

(continued on page 36)

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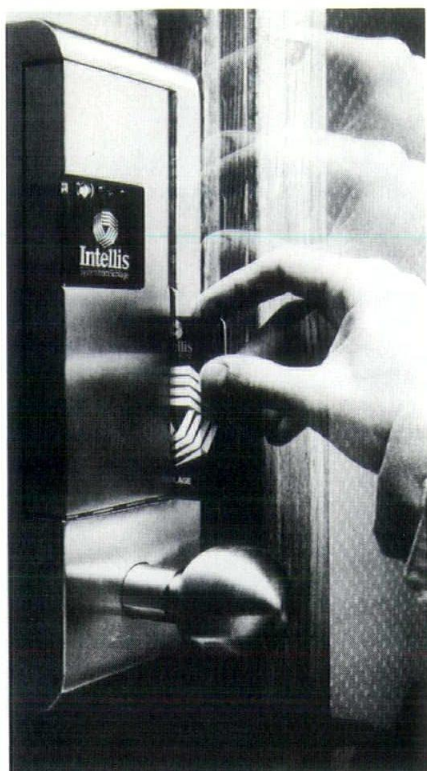
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An electronic door lock and card key system was recently installed in the Pacific Beach Hotel in Waikiki.

Electronic Security System Installed in Waikiki Hotel

Waikiki's 850-room Pacific Beach Hotel is the first property in Hawaii to install the Intellis electronic locking system, designed to provide hotels, dormitories, medical and commercial buildings with a higher level of security than any other method.

Already in service with installation completed in June, the system has functioned flawlessly so far, according to Terry Yasahara, the hotel's manager.

"From a security standpoint, Intellis is an unbeatable system as you can get," said Yasahara. "It incorporated the strengths of our previous system, while

overcoming every weakness."

Intellis incorporates the powerful, user-friendly Apple Macintosh computer, to which an electronic key-making console has been added. Credit card-sized "keys" with magnetic stripes are encoded at the console with one of the literally billions of lock combinations that will unlock guest room doors fitted with the microprocessor-controlled lock.

The Pacific Beach Hotel has three consoles, two at the front desk and one in the back office, which are networked together so they can share information. According to Yasahara, the third console allows the staff to create

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keycards in advance for the hotel's many group travelers without tying up the front desk consoles. Making a keycard takes just four seconds, he said.

A moderately-priced Waikiki hotel with high occupancy rates now averaging 85%, the Pacific Beach Hotel will derive many benefits from the locking system, according to Yasahara. One of the advantages is the system's ability to customize keycards. For example, a maid is issued cards that will only open those doors in her assigned section, and only during her shift. This feature provides the hotel with unprecedented control over room access and is a powerful deterrent to internal theft.

Because each keycard is unique, an additional level of security is provided. When a card is issued to and used by a new guest, it automatically invalidates the previous card, protecting against entry by previous occupants, or those in possession of lost or stolen cards. In addition, the microprocessor records the last nine entrants to a room and the time of each entry, reading out this data when a hand-held computer is connected to the lock.

The Pacific Beach Hotel purchased its Intellis system from JBL Hawaii, Ltd., which is the exclusive distributor in Hawaii.

Company Merger

Bonded Materials Company and QUIKRETE of Hawaii, Inc. recently merged into one company, BOMAT, LTD.

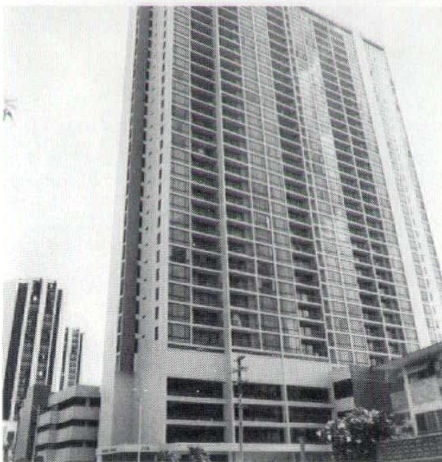
Bonded Materials Company, a name long familiar to Hawaii's construction and building maintenance industries, will continue to function as BOMAT, LTD.'s distribution arm for sales of construction and building related materials. BOMAT, LTD.'s newly named manufacturing division, PRO-PAK, will function primarily as the company's manufacturing and dealer sales arm.

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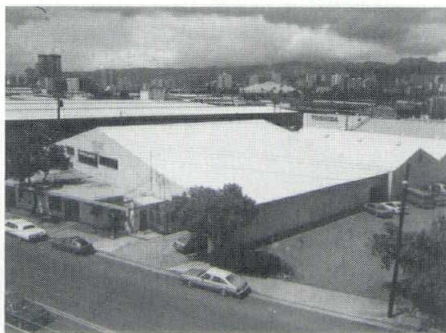
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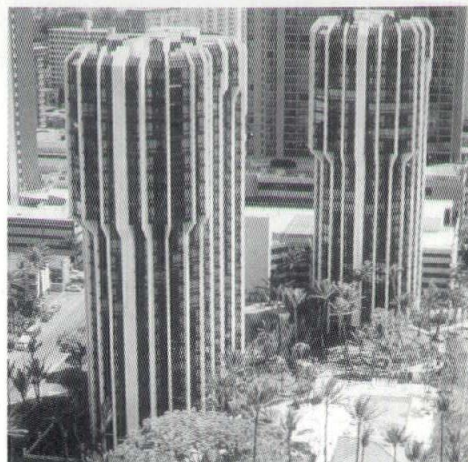
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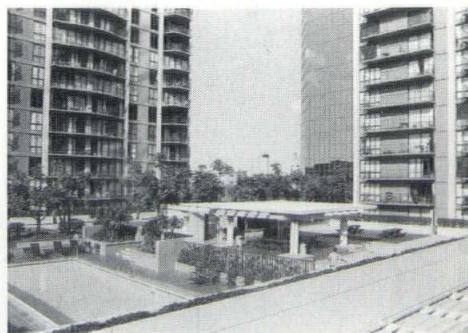
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OAHU, HAWAII, MAUI, KAUAI, GUAM

(continued from page 32)

it was pointed out to the roofing contractor that the hot asphalt membrane was supposed to be installed *before* the wood nailers were put in. It all had to be removed and redone.

Sometimes mistakes like this result in thousands of dollars in budget overruns. With large complexes, where the tile roofing can cost millions of dollars, it doesn't make sense to cut corners with the fastening system or the membrane — and not know the installer's credentials with this product.

Roofing is starting to get more attention in the overall scheme of design and construction, and personally, I think that's good. If one is going to cut corners, I would not do it where there's so much at stake. Some final advice:

- Get input from a qualified roofing contractor on the tile product and its installation during the design phase;
- Contact the manufacturer and ask him to send a representative out or provide you with a local contact, plus evidence of product use here; and
- Retain only a roofing contractor who is experienced with the product or one similar to it.

Today's trend toward tile in roofing is great to behold — if it's done right. If not, the realities will be costly and difficult. HA

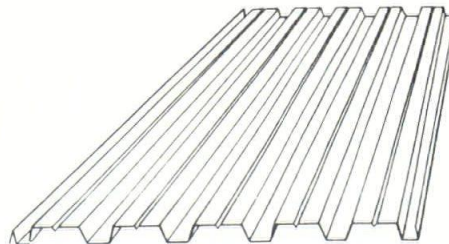


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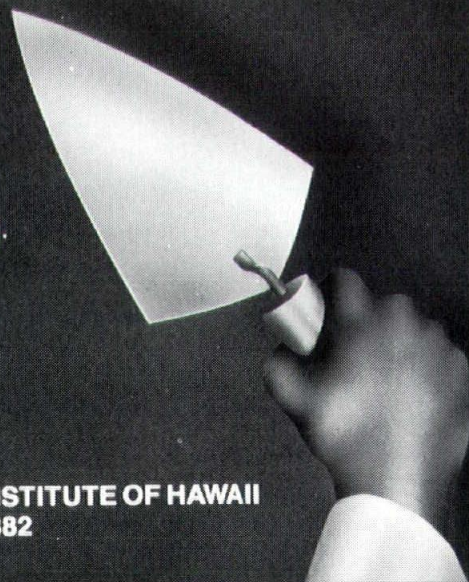
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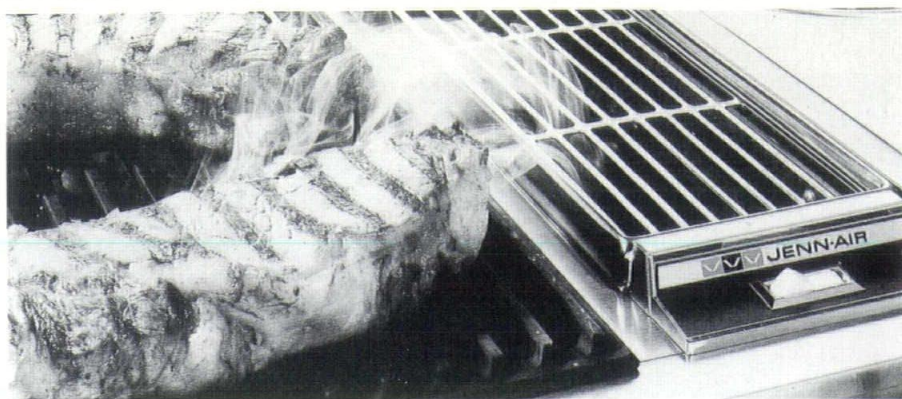
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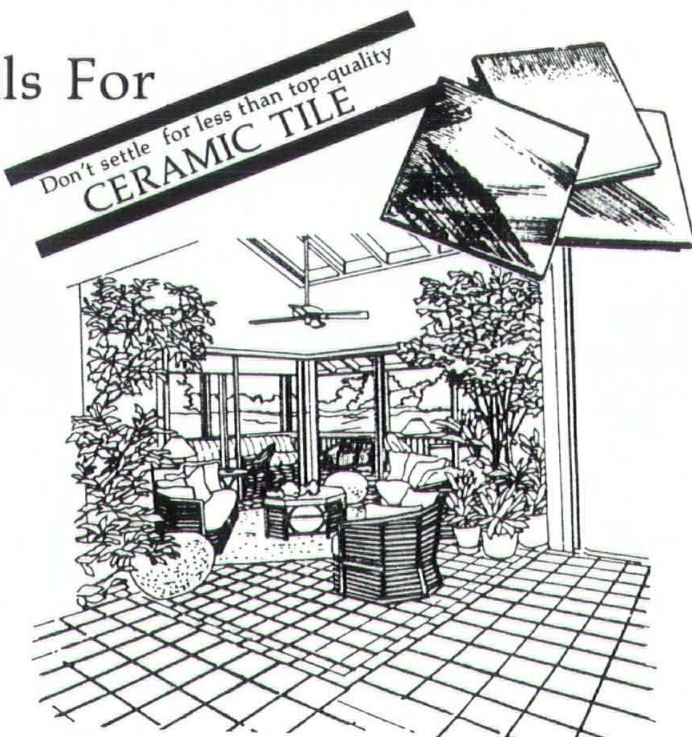
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models are the handsome NEODOMO and striking NEOSTAR. Both styles are available in single- and three-hole faucets. The interchangeable knobs and handles in white, brown and green onyx, chrome plate, or red, white or black epoxy are guaranteed to complement any kitchen interior.

The NEODOMO's single lever ceramic disc mixer saves water and energy, and its maximum temperature can be independently adjusted to eliminate the risk of scalding. KWC faucets have an unsurpassed reputation throughout the world for reliability, durability and design leadership. These innovative faucets are available at Kitchen Center of Hawaii.

Copper Roofing

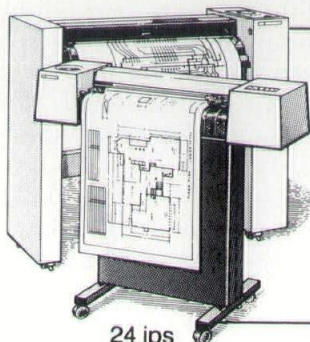
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more verdigris to form. Sponging spots all over appears to be more consistent than long brush strokes. Most painters ultimately give up and will paint offending areas with a light green paint. If a rather new roof looks consistent it has most likely been touched up with paint.

Cost is very dependent on the quantity used. Copper roofing tends to be used in small amounts which results in its reputation as a very expensive roofing. Bids seem to be very competitive for large roofs. We need to remember that roofing, which accounts for a small percentage of project costs, also accounts for a large percentage of client dissatisfaction and litigation. HA

Daniel Chun is a partner in the firm of Kauahikaua & Chun/Architects and is chairman of the Public Awareness Commission/Hawaii Society AIA. He was project architect for the copper roofing of the Liliuokalani Protestant Church, the Bishop Memorial Chapel and the Shitennoji International Buddhist University Institute Hawaii.

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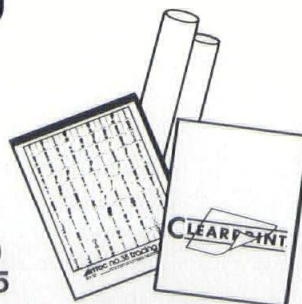
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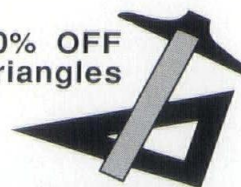
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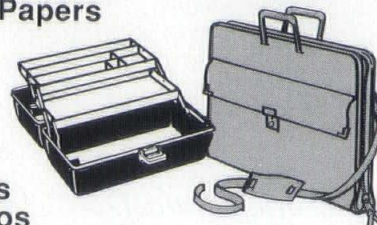


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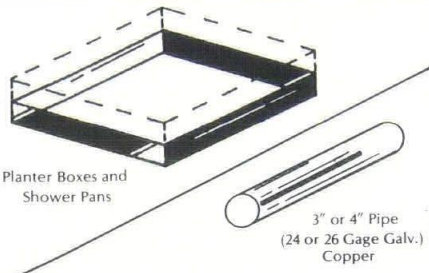


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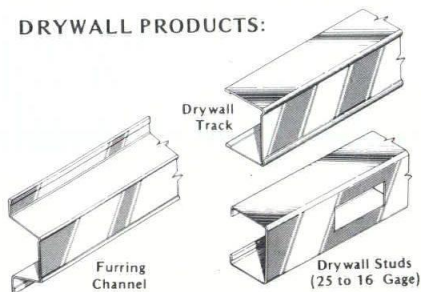
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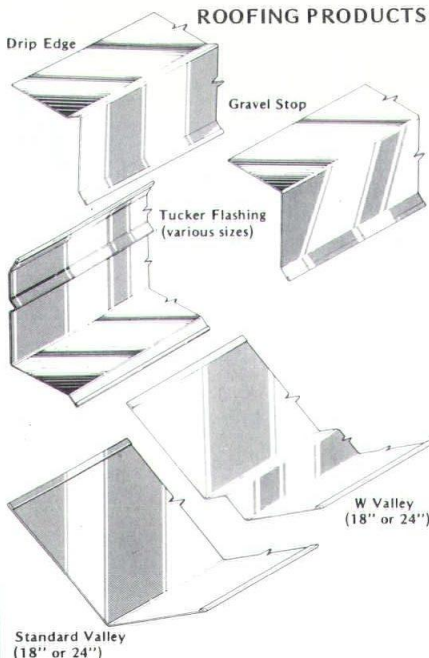
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President's Message

AIA National Convention Report

(continued from page 4)

FAIA, delivered a commentary on directions in American architectural design. He was joined by his New York City partner, John Burgee, FAIA, and nationally known architecture critics, Kurt Anderson of *Time* magazine, Paull Gapp of the *Chicago Tribune*, and Paul Goldberger of the *New York Times*, on a panel discussion following Johnson's presentation.

The panelists generally felt that after a decade of chaos in building styles, a trend is emerging toward simple designs, an integration of traditional forms with modern materials and sleekness. Johnson made no predictions—he declined even to label today's style—but reiterated his belief in architecture as an art expressing the essence of culture. Burgee said he sees the modern style as enriched rather than confused, and predicted that the emphasis on famous architects and clients will give way to more basic values. "Some buildings are getting to be like designer jeans—the quality's on the label," he said. "But that's changing. We're moving back to basic principles. I think we are going to see no more superstars, just super buildings."

Kenzo Tange, Honorable FAIA and honorary convention chairman, was acknowledged in a ceremony, for receiving the Pritzker Architecture Prize. Hyatt Corporation President Thomas Pritzker said that according to Jay Pritzker, president of the Hyatt Foundation, the Foundation "hopes it will call attention to the fact that architecture should transcend the simple need for shelter and material security by becoming an expression of men's artistic needs."

Four business items and two resolutions were passed during

the General Session. Of note was the modification of the bylaws, changing the allocation of directors' seats from number of members in a region to percentage of members in a region. In debate, members felt this measure was more democratic. A resolution was also passed to undertake a study of Institute policy and bylaws as they affect the formation of chapters and sections. This study will result in a report to the Institute by the 1988 Convention. For varying reasons, this resolution was of keen interest to a number of components in the nation and was supported by the Hawaii delegation.

The general results of the Institute's national firm survey were announced by AIA President Donald Hackl, FAIA. Some surprising findings included that "roughly half of the firms in this country do business without professional liability insurance coverage, and the overwhelming majority of respondents reported no claims against them in the base year 1986." Smaller, as well as larger architectural firms reported income increases between 1985 and 1986, and looked forward to growth in 1987. "My understanding is that most AIA firms are tough-minded but optimistic about their practices," Hackl said.

Of course, no convention would be complete without a Dodge/Sweets party and a Host Chapter fling, and this year was no exception. Conventioneers were treated to an evening at the Tupperware headquarters by Dodge/Sweets. A Sea World bash was the Host Chapter contribution, complete with a performance by Baby Shamu, the killer whale.

All in all, FACT, FUTURE & FANTASY was an appropriate theme for an upbeat and informative '87 Convention. HA

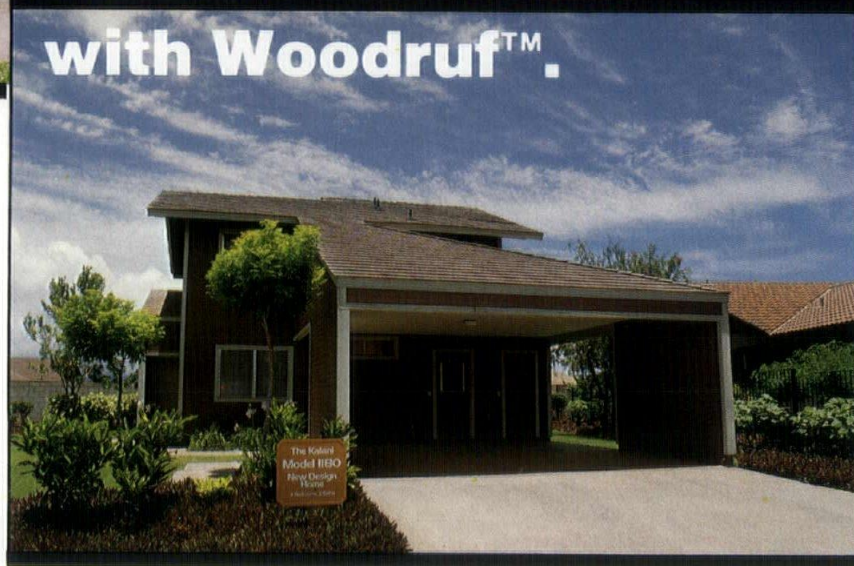
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Tom Richardson (Representative): 533-5410

Legalities in Coastal Construction

(continued from page 19)

federal agencies. While the Corps of Engineers has traditionally limited its jurisdiction by the ordinary high water mark, "navigable waters" is defined very broadly, and includes areas subject to the ebb and flow of the tide, areas in connection with a continuous interstate waterway, and even areas where the waters were navigable in the past or could be made navigable by

reasonable improvements. Although fishponds have always been considered to be private property in Hawaii, rather than public navigable waters, fishponds which were not originally navigable waters may become so by dredging and connection to recognized navigable waters. *Kaiser-Aetna v. United States*, 444 U.S. 164 (1979). Thus, developments of fishponds, wetlands and marshes may be within "navigable waters"

and require approval by the Corps of Engineers.

Avoiding Foreseeable Harm to Adjoining Landowners

An important area for design professionals to keep in mind is the potential for harm to adjoining landowners where changes occur in surface water or wave patterns as a result of construction of drainage facilities, seawalls or revetments. The Hawaii Supreme Court has

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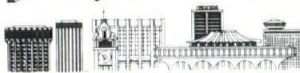
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recognized that a landowner may protect his land and alter the flow of water in a manner which is reasonable under the particular circumstances, even if it causes harm to his neighbor. The circumstances to be considered included the nature and importance of the improvements made, the reasonable foreseeableness of injury, the extent of interference with the water and the amount of injury done to other landowners compared to the value of improvements. *Rodrigues v. State*, 52 Haw. 156 (1970).

Recently, however, in *Cootey v. Sun Investment, Inc.*, 690 P.2d 1324 (Haw.App. 1984), the Hawaii Intermediate Appellate Court ruled that design professionals and even municipalities have a duty to take design precautions to avoid foreseeable harm to adjoining landowners as a result of changes in water patterns caused by construction. Although *Cootey*

only concerned surface water flows, other states have applied similar legal doctrines to changes in ocean water patterns as well.

Some Suggestions on Legal Protection

Architects and engineers may be held liable if they do not act as reasonably prudent design professionals in the community, and their acts or omissions cause damages. In addition to being aware of the permit process and applicable legal definitions and doctrines noted above, design professionals should consider the following suggestions to avoid legal entanglements.

- Maintain records, correspondence, memoranda and photographs to support your position and show that you have applied your professional skills, expertise and rationale to the problems at hand.

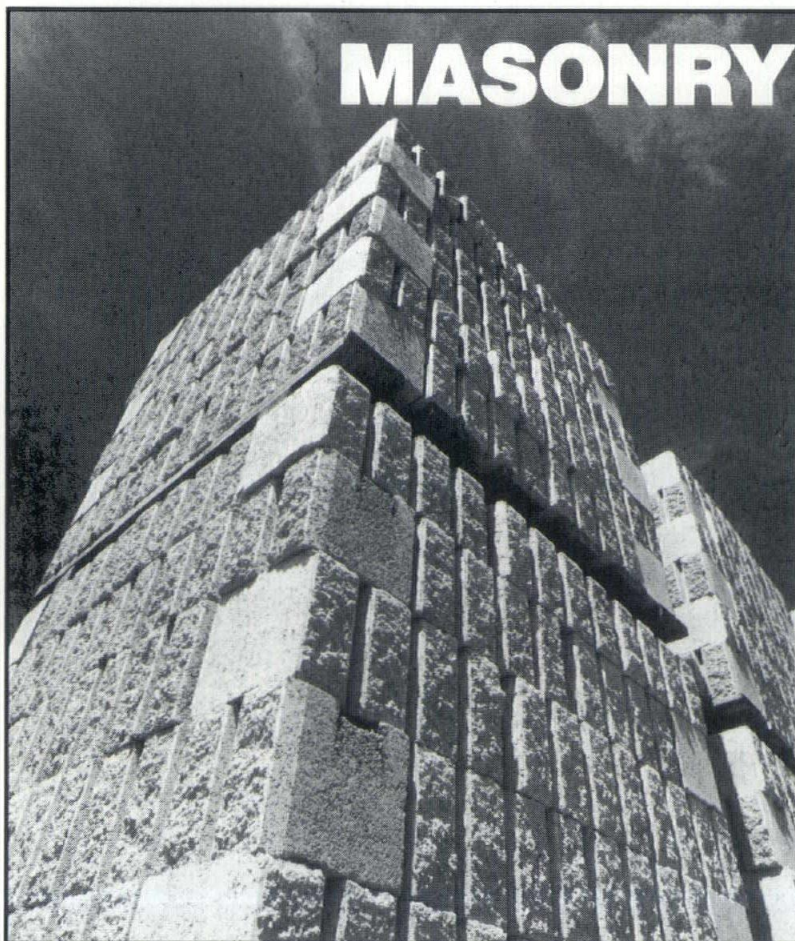
- Communicate and explain to your client any potential risks or foreseeable problems, and obtain his agreement.

- Be selective about participation in projects which involve foreseeable risks of litigation, especially where you may be the only remaining solvent party a few years from now.

- Consider obtaining contractual protection such as indemnity agreements and/or waiver and release agreements from potential claimants.

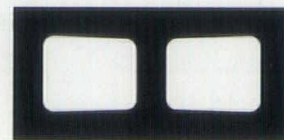
- Above all, be professional! Design or implementation decisions cannot always be perfect, and design professionals don't always have to be right. However, if you're going to be wrong, at least be professional about it. That will provide the best chance to avoid having the Law of the Jungle applied against you. HA

David M. Louie is a partner at the law firm of Case & Lynch — specializing in the area of insurance defense litigation, including the representation of architects and engineers.



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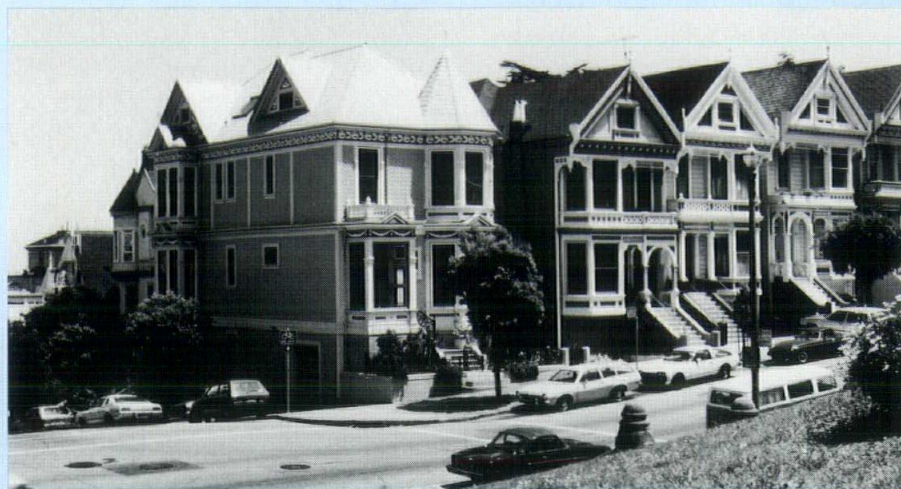
The house at 722 Steiner Street in San Francisco is one of the most photographed homes in America. It has appeared in three movies, 30 TV commercials, and on 10 magazine covers and book jackets.

"The home was built in 1892, and is Queen Anne in design. It is a designated city landmark," said Michael Shannon, co-owner of the home.

Masonite Brand Woodruf Flame Test traditional roofing was chosen. The innovative roofing product is composed of wood fibers bonded together to be tougher and more durable than wood. It even weathers to the natural grey color of cedar shakes and shingles.

"The Woodruf shingles gave us what we wanted in appearance and met city fire codes. It was very close to the original redwood

shingles that were on the home. It is a perfect match for the carefully crafted period styling of the home," Shannon explained.



After appearing on many magazine covers and receiving television coverage, this may be the only home in the country with its own theatrical agent.

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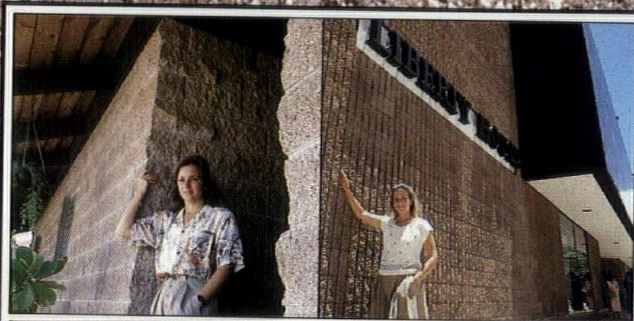
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Waikiki's Newest Food Court

Construction has begun on the 15,000-square-foot International Food Court at Waikiki's popular complex, the International Market Place. Completion is scheduled for Sept. 4 with tenants beginning their improvements Aug. 15. A "soft" opening is scheduled for Sept. 15 with the grand opening on Oct. 1.

The International Food Court is the first phase of a long-range improvement plan recently implemented by WDC Ventures, owners of the International Market Place. The court will be home to over 30 restaurants, kiosks and carts offering foods from the United States, Asia, Latin America, Europe and the Middle East.

Allied Builders is the general contractor, and Media Five is the project architect.

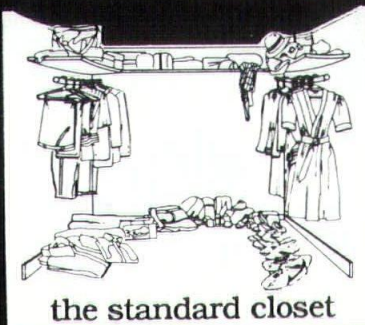
Village Park Final Phases

Ground was broken recently for Phases 12 and 13 of Village Park, the final increments of the 1,800 home, master-planned community. The Reverend Abraham Akaka, who performed the blessing, noted that it had been nine years to the day since he had blessed the opening of Village Park Phase 1.

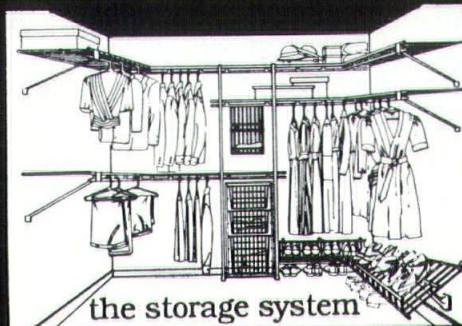
The first shovels of earth for Phases 12 and 13 were turned by key individuals involved in the development, financing, construction and sales of the project, many coming from Texas and Japan to participate.

More than 1,550 homes have been sold to date in Village Park, with over 90 percent purchased by first-time home buyers. With Phases 1 through 11 now virtually sold out, Phases 12 and 13 will make available the last 236 single-family, three- and four-bedroom homes in one of Central Oahu's most successful residential developments.

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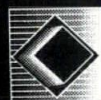
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