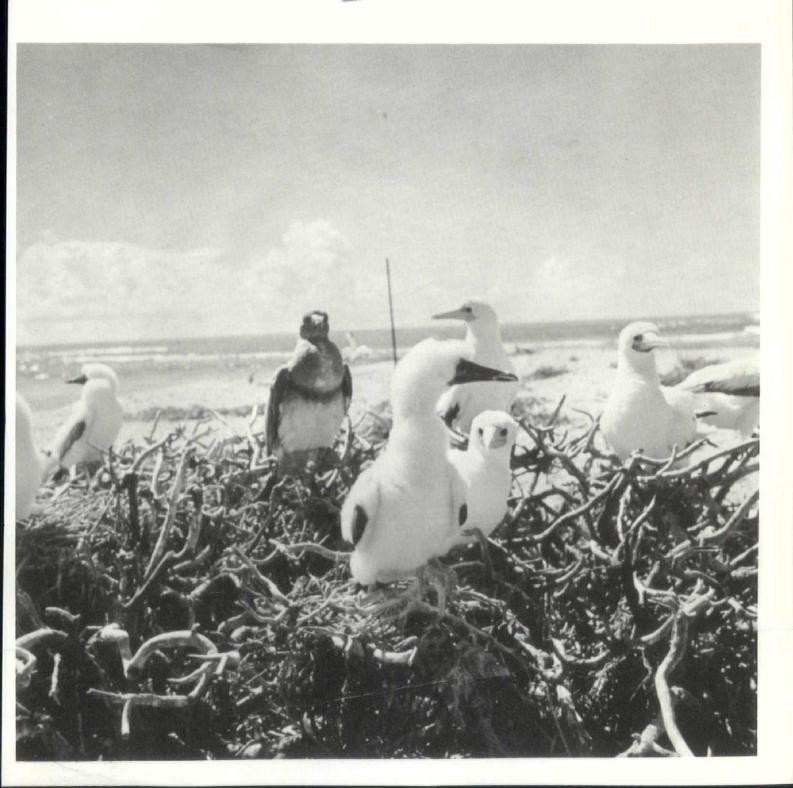
AMERICAN INSTITUTE

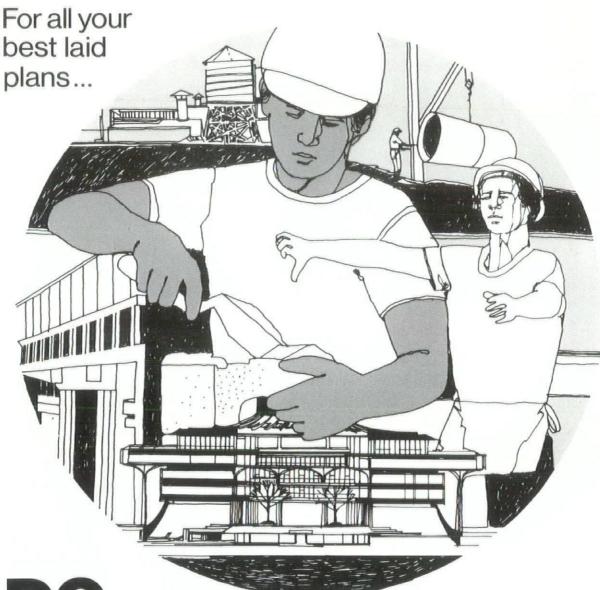
MAY 22 1972

hawaii architect

april 1972

the journal of the hawail chapter, american institute of architects





DO SOMETHING CONCRETE

No building material is more versatile, more durable, of more lasting value. Curbstones or condominiums . . . above ground or below . . . homes or highway systems . . . concrete will fit nicely into all your plans . . . and it's made right here in Hawaii.

CEMENT & CONCRETE PRODUCTS INDUSTRY OF HAWAII
Suite 400, Hawaiian Life Building
1311 Kapiolani Boulevard, Honolulu 96814



hawaii architect

The official monthly journal of The American Institute of Architects, Hawaii Chapter.

Address all letters to:

Hawaii Chapter, AIA 1210 Ward Avenue Honolulu, Hawaii 96814 Miss Beverly Cozloff **Executive Secretary** Phone (808) 538-7276

Editorial Staff:

Robert Fox William D. Merrill, FAIA Gerald Allison, FAIA John Hara Gilman K. M. Hu James N. Reinhardt Greg Hammers, Student

Chapter Officers:

President-Donald C. W. Dumlao Vice President/President-Elect-Charles R. Sutton Secretary-Sidney E. Snyder, Jr. Treasurer-Donald W. Y. Goo Director/Past President-Joseph G. F. Farrell Director/1 Year-Edward R. Aotani Director/1 Year-Lewis Ingleson Director/2 Years-Jesse Hugh Burgess Director/2 Years-Jack C. Lipman

Cover:

Some of the inhabitants of the islands north of Kauai. See cover story on Page 4.

Published by: Crossroads Press, Inc. P. O. Box 833 Honolulu, Hawaii 96808 Phone (808) 531-4137

All advertising inquiries should be directed to the publisher.



PRESIDENT'S MESSAGE

By Don Dumlao AIA

The first quarter of 1972 is now history; the accomplishments, or lack of them, is fact. Whether we are satisfied or not is something we can now react to or do something about. I, for one, am pleased with our start, thankful for the effort many are making, hopeful about the potential of the remaining three quarters, and disappointed in the amount of effort it takes for some of our accomplishments.

Our membership has increased (approximately 10 per cent); our legislative program has been effective (especially the statute of limitations); our meeting programs have been varied, informative, interesting and well attended; our special meetings have addressed current problems and concerns; our efforts have helped strengthen and reactivate ICED: and our policy manual is finally being formulated - the first step in solving our annual struggle with reinventing the

I would, however, like to address the rest of this article to our biggest single problem - communication - communication - communication, both internal and external. Solving the internal problem is a matter of attitude and cooperation by the collective membership. Communication involves both sending and receiving and to be effective both must be equally viable. To receive and not to respond terminates communica-

tion. To respond but not to the source creates miscommunication, by far the biggest part of our internal problem.

As bad as it sounds, the internal problem is not as acute as our external one that with the public and our clientele. Unlike our internal problem, this is a little more difficult to solve. It involves others outside our control and requires an expertise not normally within an architect's skills - Professional Public Relations. Solving this problem is what the Chapter's "P.R. Action Program" is all about and why the Executive Committee is asking the membership to consider a special P.R. assessment. The cost sounds initially expensive but is actually self-liquidating and will place the architect in the proper professional and economic position within our industry and community, which in itself should justify the cost and the effort.

To insure against failure to communicate the importance of this need, the P.R. action plan was first presented to the membership in January at our general meeting; printed in part in the February Hawaii Architect (pages 8 and 9); represented at our March meeting; and finally mailed to each corporate member. Please review it prior to our special meeting on May 4 and make your feelings known. Remember, failing to respond terminates communication our biggest single problem.

WAL's Annual Event

The Women's Architectural League (WAL) has set June 2 as the date for its third annual Wine Tasting and Art Sales-Auction.

This year's action will be at the Ward Plaza, and chairman of the event is Lovelle Fairweather.

Donations of Arts and Crafts are now

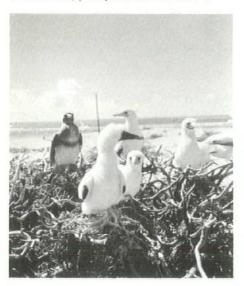
being accepted by members of the WAL.

All profits from this sale will be donated to the University of Hawaii school of Architecture.

A total of \$1,900.00 has been donated by the WAL from the previous two events.

Plan Needed to Preserve Natural Resources

Editors note: The following is a letter from Dr. Kenneth Norris of the Makapuu Oceanic Center and U.C.L.A. Department of Natural History to Jun Yamamoto, past president of the AIP



In September 1971 I had the opportunity of taking part in an expedition that visited nearly all the land masses to the northwest of Kauai, a chain of low islands and atolls more than 1,000 miles long. It extends past Midway Island to Kure Atoll, and includes these two, plus Pearl and Hermes Reef, Lisianski Island, Laysan Island, Gardiner Pinnacles, French Frigate Shoals, Necker Island, and Nihoa Island. The entire area is to be considered some time in 1972 for inclusion in the National Wilderness System.

We helicoptered to Kure and landed by boat on the remainder of the islands. We spent six days on Laysan Island and made censuses of the endangered wildlife living there, including the Laysan Teal and the Laysan Finch, both of which live nowhere else in the world. We censused the sea turtles (whose sole central Pacific nesting grounds occur here), the Hawaiian Monk Seals (this endangered species lives only on these islands and, thanks to protection, has sprung back from near extinction). We saw the tens of thousands of shearwaters, Bonin Petrels, turnstones, terns, frigate birds, and boobies that nest there. The albatrosses had completed their nesting by the time we arrived, but they, too, make their only home on these islands. The entire north Pacific receives its albatrosses from these motes of land. On

Necker Island and Gardiner Pinnacles we were fortunate enough to have close-up views of the lovely Grey Noddy Terns that find their home there. There is probably no more graceful or beautiful bird in the world than these highly restricted creatures. On Nihoa I was able by patience to photograph the endemic Nihoa Millerbird. This shy, slenderbilled creature usually shows no more to the visitor than its head from behind dense bushes.

I was amazed to see a marine fauna that was essentially untouched. The area must be today like our main island reefs once were. Twenty-pound ulua swam over sand flats so shallow their dorsal fins were out of water. Mullet, moi and bait fish swarmed in the shallows. When we took our daily dip in the crystalclear water, moi and other small fish nibbled over us like we were new grazing ground. Offshore, the Coast Guardmen on our vessel brought in 20 ulua in an hour or so, the smallest weighing 35 pounds and the largest over 70. Sharks, too, abound. Underwater, revealed to the snorkeler, was a boundless reef life much too various to describe here.

On Necker and Nihoa we saw the ancient Marae which are perhaps the oldest Hawaiian structures known. On Nihoa we even found an ancient lava bowl, photographed it and put it back

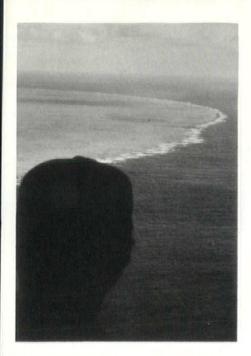
by the cave where it was found. We also saw where thoughtless bombing practice had blasted craters in one and perhaps more of these ancient relics.

The chain is indeed a wilderness and historical treasure of utterly unique composition and degree of preservation. The wildlife managers, under Gene Kridler and Dave Olson, have brought it back to a truly natural state and are zealously keeping it there. America has no other locale like it, what with its several endemic species, the only atolls in any state, the extensive oceanic bird nesting grounds, and the untouched reefs. I fervently believe it needs every bit of protection we can give it.

These values are terribly fragile. We scientists took our toll even during our brief stay. As we walked our census transects, we inevitably crashed through the rooves of dozens of shearwater burrows. Our disturbance spread like a wave wherever we went. Silent testimony to this fragility was found on Laysan Island where we pulled out two dozen clumps of sand spurs that had taken hold from seeds probably carried in on the clothes of military personnel who used the island briefly. We probably did no more than to deter this noxious plant that may, unless stopped somehow, sweep across the island.

Wilderness designation is desirable Continued on next page





for the islands because it removes the decision to change boundaries and protection from the hands of administrators in the U.S. Department of Interior, and requires action by Congress and the President. Thus, changes that are contemplated are made visible to the watching conservationist groups, and we are much surer that what we cherish will be saved. Also, Gene and Dave have carried out their valiant work by hitching rides of available vessels, talking people into flying them here and there. I admire them more than I can say for this devotion. But they won't always be with us. Dedicated guys like these have a habit of being advanced in their professions. Who knows if the next set of refuge managers will be willing to land through the sharks in their rubber boat, or to make the gruelling climb to the top of Nihoa to see if the millerbirds are safe. Wilderness designation will help make the area visible in the eyes of people in Washington, D.C., who can help increase the pitifully small funding now available for the maintenance of the refuge.

We are not sure when public hearings for the "Northwest Hawaiian Islands National Wildlife Refuge" will occur. They are expected in mid-1972, or thereabouts. The state and Federal authorities are deep in preparation of boundaries and other details of their plan and are unsure when they will be ready. At such time as they publish their plan, we will be given a set number of days to critize it and to prepare our statements for the public hearing. If you choose to support this effort, I will keep you informed of all details as they develop.

For Dependable, Diversified Financial Direction

GREIG ASSOCIATES, INC.

INVESTMENT COUNSEL

Once you needed investment advice occasionally. Now you need it continuously. Our principal service, since 1958, has been the effective management of money. Personalized financial management for small investors or large includes individual or group portfolios.

GREIG ASSOCIATES, Inc.
Sixteenth Floor — 700 Bishop Street
Honolulu, Hawaii 96813
Telephone (808) 531-2722

JAMES F. GREIG CONTINENTAL, Inc. 1474 Campus Road Los Angeles, California 90042 Telephone (213) 257-3844







Send me 52 weeks of Business for \$12

(Less than 17¢ an issue for a 3 year subscription)

1 Year - \$12 / 2 Years - \$19 / 3 Years - \$25

name		title	
company			
address		_ phone	
city	state	zip	
Payment Enclosed Bill Me	Bill Company	() Two Years	
Please sign here		[] Three Year	

Hawaii Firms VI

Geoffrey W. Fairfax

By J. M. NEIL

Architectural restoration has recently become a very important field, as anyone can gather from the fact that the Archiectural Record devoted its December 1971 issue to the subject. It is almost as apparent that there are several distinct approaches to restoration. In ascending order of archaeological accuracy there are the Disneyland-type facilities keynoted by nostalgia and fantasy the careful and sensitive renovations (such as Merchant Square here in Honolulu) that emphasize a balance between historical and economic values, and, finally, the very scholarly efforts epitomized by Williamsburg, Viriginia. Iolani Palace is certainly the best known local example of the last type (call it, if you will, archaeological restoration). And probably the Hawaii firm most concerned with this very demanding kind of restoration is that of Geoffrey W. Fairfax.

Geoff Fairfax has had a long and varied career in architecture, and his eight-man firm continues to devote about fifty percent of its efforts to new designs, but since 1968 it has led the field in Hawaii in archaeological restoration. Beginning with studies of Iolani Barracks in 1968 and the initial research for Iolani Palace the next year, the firm has broadened its scope to the Neighbor Islands in the past couple of years: Grove Farm Plantation Homestead on Kauai; Hulihee Palace in Kailua-Kona; the Bond Plantation with the proposed \$5,000,000 Kohala Study Center (see illustration) on the Big Island; and, in the near future, the Marine Hospital for the Lahaina Foundation of Maui.

How does one move into this field? Geoff Fairfax's biography suggests that it is the result of an immensely varied experience. Born in Stockton, California, in 1921, he received his first bachelor's degree from the U.S. Merchant Marine Academy at Kings Point, New York, and only after World War II did he study architecture at the University of California. After obtaining

Continued on next page

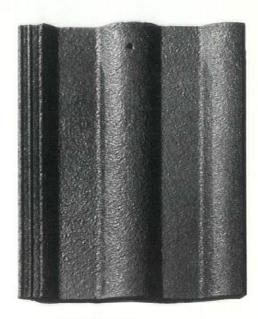


that second bachelor's degree, Geoff continued at Berkeley to a master's in architecture because he had the opportunity to study with Eric Mendelsohn. From 1952 to 1963 he worked with Wurster, Bernardi and Emmons in San Francisco (as Associate Partner from 1956). His largest assignment was as project architect for three and a half years for the \$85,000,000 Golden Gateway Redevelopment Project in San Francisco. But Geoff also gained some valuable experience in both housing and restoration work. After two years in independent practice, he moved to Honolulu in 1965 as home base while working in the Far East, Hawaii, and California as architect and planner for Oceanic Properties. Finally, in 1967, he founded his present Honolulu firm and, as we have seen, soon moved into a significant volume of restoration work.

That is certainly a roundabout path. His associate in charge of the firm's restoration department, E. Blaine Cliver, exemplifies a much more direct route. Born in Wilmington, Delaware, in 1941, Blaine decided while studying architecture at Carnegie Institute of Technology to specialize in restoration. During the summers he worked for the National Park Service in restoration projects. After receiving his degree in 1964, he enrolled at Columbia (one of the few universities that teach all of the relevant techniques) and obtained his master's degree from the Restoration Program in 1965. Having won a traveling scholarship, Blaine spent the last half of 1965 studying and photographing restoration work all over Europe. He managed to crowd in eight months with the Lahaina Restoration Foundation (restoring the Baldwin House) and six months with the National Park Service (architect for the White House) before his military service. Even then, Blaine had the good fortune of receiving professionally relevant duty, developing a master plan for the Washington Naval Yard, and on his own

Continued on page 13

Fair Shake?



WOOD SHAKE

traditional

MONIER ROOF TILE

contemporary
fireproof
termiteproof
waterproof
rotproof
windproof
mildew-resistant
sound absorbent
heat reflective
non-warping
colorful
maintenance-free
competitively priced
made in Hawaii

We've left you space to compare — item by item. We think you'll discover Monier Roof Tiles offer more than just a fair shake. Monier Tiles are the most remarkable roofing material ever made. Specify them on the next home you design, build or finance.

Monier Roof Tiles



91-185 KALAELOA BOULEVARD, CAMPBELL INDUSTRIAL PARK HONOLULU, HAWAII 96706 / PHONE: 682-4523

KUKUI GARDENS

JURY STATEMENT:

By FRANCIS S. ODA Member of the Jury

Jane Jacobs would approve of Kukui Gardens, unless she lived there. This low- to moderate-income housing development is something of a testing ground for the socio-architectural ideas so dear to us. That these concepts have been implemented is a credit to Daniel, Mann, Johnson & Mendenhall. One can only wish they had been more imaginatively interpreted.

IDEA NO. 1: That stoops have a major social function in low-income communities. Assuming this to be the reason for the exaggerated expression of the "tongues," as they are called, the concept seems to have been lost in the form. These are no more than stairs and do not provide the sit-an-meet ambiance of stoops for any but the tiniest children. As stairs, they present a hazard to families, with mothers expressing concern about youngsters slipping and falling. Granted, these stairs serve an interesting plastic function, but one that is not realized within the context of their social potential.

IDEA No. 2: That the provision of lanai assures outdoor "Hawaiian" living. The upper trellised lanais, another of the distinctive architectural features of Kukui, remain unused and the trellises unplanted. This appears to be the result of the majority being locationed off bedrooms rather than family spaces and their lack of positive cover (making them uninhabitable during much of the day). Strangely, the management also discourages the furnishing of these lanais, apparently for fear that Kukui will look too much like "housing." The result is an austerity certainly not envisioned by the architects in their renderings of cascading bougainvillaea.

IDEA NO. 3: That a sense of community and mutual safety result as neighbors view, from their homes, each other's children at play. This might have been true in the streets of Miss Jacob's Boston but not at Kukui. One of the points of greatest communal tension appears to be the noise and minor altercations resulting from children playing in and about the units. When communities lasted through generations, neighbors' children were known to everyone. In today's transient society, the children playing outside are largely strangers and nuisances. Mini-playgrounds placed in the center of tight dwelling clusters are as much problems as amenities. This is especially true of the play area set next to a building for the elderly.

IDEA NO. 4: That play equipment should be pieces of sculpture. While most of the apparatus in the play-grounds seem to be appropriately designed, one extremely architectonic piece seems more visual than practical. Entirely concrete, its sloped roofs shed onto a skull-cracking concrete slab... as was pointed out by a concerned mother.

IDEA NO. 5: That people enjoy being separated from cars. Probably the strongest point of Kukui is the totally pedestrian precinct created by storing vehicles along the periphery. The site's interior is a humane series of walks between structures with occasional courts, leading to a major playfield. Mothers enjoy the freedom of releasing their children to play in safety. The problem of safeguarding cars is solved by security patrols. Parking areas are shielded from neighboring streets with landscaping.

IDEA NO. 6: That low-income housing should not be developed in superblocks. The size of Kukui Gardens lends

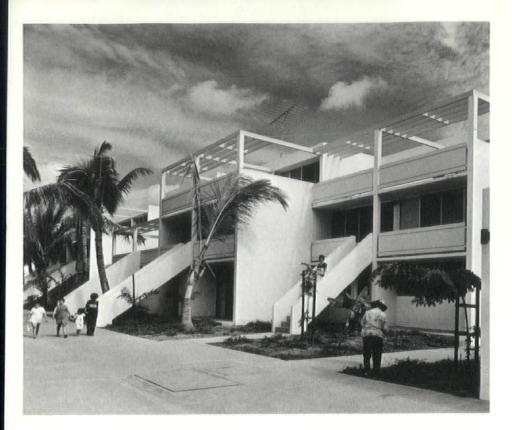
itself to an anonymity of spirit. Carefully treated, as in Oakland's Acorn project, size and density need not be insurmountable problems. For example, the siting of buildings along pedestrian corridors, rather than in nodes, provides for a pleasant continuity of spaces but contributes to the project's sense of vastness. Neighboring along these corridors is not convenient and seems to follow the social pattern associated with streets rather than cul-de-sacs. Cul-desac "camps" (single and multi-storied complexes so-called by a plantationborne society) made preredevelopment Kukui a series of neighborhoods within the neighborhood. Kukui then had a communal dimensionality that it now lacks.

In other ways, Kukui Gardens follows Louis Sullivan's dictum "think in simples." The units are simple but livable. The articulation of forms is modular yet varied enough to stay boredom. The landscaping is straightforward and promises to one day provide the richness of detail and color now lacking in the architecture. The site plan follows basic academic rules so evident in student projects yet conspicuously absent in practice. Kukui Gardens is a sound, if somewhat uninspired, resolution of the problems of mass housing environments, a resolution too seldom achieved.

STATEMENT BY THE ARCHITECT

A community of trust is difficult to describe; it is even more difficult to design. The Honolulu Redevelopment Agency's (HRA) Kukui Area Improvement Project, Kukui Gardens, occupies 19.5 acres of what was once dilapidated substandard wooden shacks. These buildings were razed ten years ago as the first step toward the transformation of the area.

The target group for the project was families in the "gap group," those un-



able to qualify for available low-income housing assistance by reason of over income, but unable to compete financially on the open market. First priority is given to families displaced by governmental actions, such as urban renewal clearance.

The HRA program for Kukui Gardens was established to meet federal design standards on density, open space, and amenities; a total development budget was established at \$15 million for the 822 units of the project.

Recognizing that the success of any living area is the harmonizing of intimacy and isolation, Daniel, Mann, Johnson & Mendenhall adopted the walk-up townhouse concept for Kukui Gardens. The staggering of building heights and stressing the three- and four-bedroom unit, the townhouses were constructed of prestressed concrete slabs which could be assembled into clusters.

Basic to the design concept was the full utilization of the adjacent City-owned Beretania Park, and the safe interaction of children and adults within the development. Peripheral parking areas and the backs of the housing units were placed as a buffer to outside traffic. Interior traditional sidewalks took on the character of pedestrian malls, with playgrounds and landscaping to develop the inner life of a community without interrupting vehicular circulation.

SECTION

THERD PLOOR

THERD PLOOR

THE ST PLOOR

THE ST PLOOR

THE SO TH

BUILDING MODULE B

Comfort and convenience were fundamental elements to DMJM's design. This intergration of activities, further, was underlined by the use of materials. Sculptural playground equipment is also made of concrete; usually busy with children. These tot lots are also aesthetically pleasing.

Resident privacy was also built into Kukui Gardens. Each unit is entered without visitors passing anyone's living room or bedroom. Separate stairways and balcony bafflements prevent unwanted intrusion. In the four six-story buildings, elevators stop only at alternate floors and the same safeguards of privacy are maintained.

The continued sightliness of the project was also fostered by design. Trash containers are centrally located and collected from enclosed sections located near the out-lying streets; clothes may not be hung from balconies; and a master antennae system guarantees TV reception while eliminating the need for the unsightly individual aerials.

Kukui Gardens is offered to qualified applicants from \$84.50 rental for a one-bedroom unit to \$146 a month for a four-bedroom, two-bath unit. Consistent with the overall philosophy of the development, these rents include the costs of grounds maintenance and all utilities other than telephone.

The development team was The Clarence T. C. Ching Foundation; Daniel, Mann, Johnson, and Mendenhall; The Kukui Gardens Corporation, and the Hawaiian Dredging & Construction Co.

The project has been given the 1970 AIA National Award of Merit for "distinguished accomplishment," cited by Sunset Magazine, the National Urban Coalition, The National Association of Registered Architects and the Hawaii Chapter, AIA (1971 Honor Awards).



Quality as You Like It Speed as You Need It

6

Two-Way Radio Dispatched Cars to Serve You

> Ala Moana **941-6602** 1512 Kona St.

533-6044 770 Richards St.

949-5581 931 University Ave.

839-7788 819 Mapunapuna St.

HAWAII BLUEPRINT & SUPPLY The AIA Jury of Fellows, recently notified the Hawaii Chapter that three of its members, Francis Haines, Ernest Hara and Edward Sullam, have been advanced to Fellowship.

The occasion will be held during the AIA National Convention on May 7 to 11, 1972, in Houston, Texas.

This recent election will bring the Hawaii roster of FAIA, now living in Hawaii, to 11 members. Present members and their date of advancement are as follows.

Vladimir Ossipoff	(1956)
George J. Wimberly	(1957)
Thomas H. Creighton	(1959)
Roger Lee	(1963)
Alfred Preis	(1965)
William D. Merrill	(1966)
Cyril Lemmon	(1968)
Gerald Allison	(1971)



FRANCIS S. HAINES, AIA

Graduated from Princeton (B. Arch. 1941); Officer, U.S. Navy, until 1946; MIT (M. Arch. 1948). Began as a designer in the firm of Lemmon and Freeth, Architects, and is presently president, Lemmon, Freeth, Haines, Jones and Farrell, Architects, Ltd.

As past president of the Hawaii Chapter, in 1961, Frank has also served the Chapter in many other positions through the years. Among them are the formation of the Annual Pan Pacific Award Citation program, chairman of the Chapter Design Committee for five

Haines Hara Sullam

times and is, at present, a member of the Institute's Design Committee.

Frank is considered by his clients, as well as the community, an authority on local low-cost housing design. He has been a tireless worker with volunteer organizations for people with low incomes. He was Task Force Chairman for the formation of the nonprofit Hawaii Council for Housing Action.

His nomination was sponsored by Joseph Farrell, AIA.



ERNEST H. HARA, AIA

A graduate of Punahou School and the University of Southern California (B. Arch. 1935). He is president of Ernest H. Hara and Associates, Inc.

Ernie has served the Chapter in many capacities since 1959, including Chapter president in 1965, and vice chairman of the AIA recess convention in Hawaii in 1968. His other activities include serving eight years on the Hawaii State Board of Registration and standing committees of the NCARB, as well as a long list of civic and private organizations. He is presently chairman of the Chapter's Legislative Committee and is credited for much legislation favorable to the construction industry.

Continued on next page

NEW FELLOWS

His son John, is a teacher in architecture at the University of Hawaii, as well as an architect with his own practice.

His nomination was sponsored by Gerald Allison, FAIA.



EDWARD SULLAM, AIA

A graduate of Carnegie Institute of Technology (B. Arch. 1950). He established his practice in Honolulu in 1958.

Ed has served the Chapter in numerous positions, assuming the Presidency in 1967. He has, as a private citizen, as well as a Chapter officer, been an outspoken proponent of good architecture, urban design, environmental and preservation causes long before the present trend.

His architecture has been published in professional and local news media and he has been the recipient of several Hawaii Chapter AIA Honor Awards as well as the AIA-House and Homes Magazine's "Homes for Better Living" Award.

His wife, Fredda, is a present member of the Honolulu City Planning Commission. His nomination was sponsored by Gilman Hu, AIA.

Central gas water heating systems have a Tower-ing advantage over individual electric units.



The elegant new Yacht Harbor Towers condominiums have chosen central gas water heating systems because they offer these advantages over individual electric units:

- ★ LOWER COST PER APARTMENT. A central gas system costs less than the cost of many individual units.
- ★ MORE VALUABLE SPACE. A central gas system stores out of sight in less valuable space. While electric units fill valuable closet or under-the-counter space.
- ★ MORE RELIABILITY AND EASE OF MAINTENANCE.

 There is only one system to maintain with central gas water heating and it is always easily accessible. With individual electric units, there are more things to go wrong and when they do, individual apartments get damaged, have to be entered and their occupants disturbed.
- ★ LOWER OPERATING COSTS. With a central gas system, you buy your energy wholesale.

Call Gasco for the facts at 548-5368.

GAS IS MORE THAN A HOUSEHOLD WORD



GASCO INC.

A SUBSIDIARY OF PACIFIC RESOURCES, INC. P. O. BOX 3379 / HONOLULU, HAWAII 96801

ISLE GAS DIVISION:

Hilo • Kona • Kamuela • Kahului • Lihue • Duvauchelle's (Molokai)

NASHUA ELECTROSTATIC COPIER SUPPLIES



Everything you need to get blacker, sharper images from

SCM, Apeco, MinoIta, Sunbeam, and Other Sheet-Fed Copiers

Nashua's electrostatic papers' high charge acceptance means blacker, denser images on whiter background. Nashua's toners and dispersants are matched to Nashua's papers to assure unmatched cipy quality, el eliminate waste.

Distributed by:
on Oahu—
Webco Honolulu, Inc. 521-3491
on Maui—
Maui Office Machines, Inc. 244-7902
on Hawaii—
Office Things, Inc. 935-5401



Role of Economics and Operations Research in Planning

By JOHN HOLMSTROM

Professor Holmstrom brings to the Planning Team certain skills from the fields of economics and operations research. His very readable and pertinent article is the third in a series viewing the problems of this team from the vantage points of its various members.

In discussing the role of economics and operations research (OR) in the planning process it is useful to distinguish between past, current, and future practice. Many recent technological advancements have been made in the planning profession, and the nature of these advancements has been significantly influenced by economics and OR. But as the planning process continues to adapt itself to changing needs so, too, will the influence of these disciplines on planning likely change.

It is not difficult to see the appeal of economics and OR as tools employed in solving social problems. Increasingly, social systems are visualized as complex entities, consisting of many inter-related components. Governments are forced to allocate scarce resources among competing programs which affect the system in varied and subtle ways. Economics provides a theoretical framework for looking at the problem of resource allocation in an organized fashion, and of analyzing some of the impacts of alternative policies. Operations research, which is itself essentially devoid of theoretical content, provides a body of methodologies which facilitate the efficient handling and manipulation of information. Although there is no single universally recognized definition of operations research, it can at least be described by some of the methodologies it encompasses, such as statistical decision theory, mathematical programming, and computer simulation.

Together, economics and operations research have a certain degree of sophis-

tication and "elegance." These attributes and the fact that economists and operations researchers have been willing to undertake rigorous analysis of social systems and have actually ventured to come to some firm conclusions on the basis of their analysis have endeared them to many policymakers. The economist has often appeared with this computer printout to create some order out of chaos when others without rigorous tools have had little to contribute. He has not had to argue in vague terms about the pros and cons of this and that alternative; he could do it in dollars and cents. The economist has been listened

The influence of the operations researcher has grown with that of the economist. OR methodologies were used with spectacular success in World War II (for instance in anti-submarine warfare), and they are necessary now to big business (inventory control) as well as big government (program scheduling, PPBS). Essentially OR is applied logic. But it differs from logic operations that individuals can perform in that it can handle vast amounts of information (data). Its foundation is mathematics and its life support system is the computer. Its main utility to the planner is as a manipulator of data in statistical analysis and in modeling social systems. No wonder it is sometimes difficult to separate the economist and the operations researcher - the former uses the tools of the latter.

Continued on page 14

Geoffrey Fairfax Continued from page 7

time, working on the Dranesville Tavern in Fairfax County, Virginia. After his military service, Blaine returned to Hawaii and joined Geoff's firm. Blaine's office, the King's Bedroom in Iolani Palace, must be the envy of restorationists throughout the nation.

Although Goeff is vitally interested in restoration he feels that it would be unwise to devote his firm's full efforts to that specialty. For maximum economic stability and to keep the excitement of variety, new projects are as important to the firm as the restoration commissions. Recent work in this area includes the Aikahi Park Shopping Center in Kaneohe, a 15-story condominium in the Honolulu redevelopment area, various planning assignments in the Philippines, the Mililani Manor townhouse project in Mililani (see illustration) and a house for astronaut Wally Schirra in Princeville, Kauai.

Since 1969 Geoff has had Thomas M. Culbertson as associate in charge of production at his Ward Avenue office. Born in Ashland, Kentucky, in 1915, Tom received his degree in architecture from Princeton in 1939. After working with John and Coulton Skinner in Miami Beach, he spent four years in the service. From 1948 until coming to Hawaii in 1969, Tom worked with a number of firms in the San Francisco Bay area as well as having his own practice there from 1955 to 1963, including two years as a partner with Roger Lee. He worked on every type of architectural project - commercial, residential, educational, industrial. While an associate with Hardison and Komatsu in San Francisco he was the project architect in charge of the site search for California State College in Contra Costa County. And, he also supervised the construction of the \$7,000,000 Bollman Water Treatment Plant for the Contra Costa Water District. Tom received (in 1967) an AIA-Sunset Honor Award for the Woodard Residence in Stinson Beach. It seems most unlikely that the firm of Goeffrey Fairfax could come up with a commission for which Tom has had no experience.

Coordinating the restoration work and the new designs might seem like an invitation into schizophrenia, but Goeff finds it no burden. Pragmatically responding to each challenge as it comes, he quietly smiles and concludes, "All of it is architecture, involving creativity and orderliness — and I happen to like architecture very much."

Mulling it over with...



MOLENhoff

Get set for changes.

I mean changes that are more than just frills and fancies with little functionality. Changes like new and proven methods for waterproofing barriers for decks, ramps, roofs and walkways.

It's worth your time to let me tell you about a product called *Hydro-Ban* the reinforced vinyl elastomer membrane that is ready for any weather and such frictional displacement loads as diesel truck tires or the stresses of power steering systems. This Hydro-Ban membrane resists swelling or softening by gasoline, lubricating oil, automotive brake fluids and — battery acids. In addition, it's fire resistant, and has an inherent resistance to

black fungus, as well as other fungi and bacteria.

To illustrate a severe short time hazard to a roof deck covering, a test was performed a while back simulating the spiked heels women used to wear. Now days woman's shoes are not unlike the WAC issues of WWII. But, to duplicate the "spiked heel" effect a quarter inch diameter steel rod with flat ends was placed on top of the Hydro-Ban covering (Polyvinyl chloride with a neoprene rubber laminate with a 0.030 thickness) under which was half inch plywood. Progressive loadings of 100, 300, 500, 750 pounds were applied using a Baldwin Universal Testing Machine. The load in pounds and the corresponding psi are: 100=2,037.49; 300=3,056.23; 500=10,187.45 and 750=15,281.17.

Here are the results: At 100 lbs. a slight indentation in the plywood substrate, the Hydro-Ban showed no scuff marks or cut through; at 300 lbs. there was permanent deformity of the plywood but the material showed no scuffing and cut through; at 500 lbs. the rod penetrated into the plywood 3/32" causing permanent deformation. There was no damage to the membrane. And at 750 lbs. which results in a stress level of 15,281.17 psi, the membrane was not penetrated or cut and still

would have acted as a water barrier.

So for a membrane-type roofing cover which provides a weather tight seal against rain and moisture and resistance against heat, wind and sunlight in addition to the heavy vehicular or pedestrian traffic, call me and I'll fill you in on the specifications of Hydro-Ban.

Thanks for your time.

HONOLULU ROOFING CO., LTD.

TILE . FLOORING . ROOFING

Showroom and Offices 738 Kaheka St. Honolulu • Phone 941-4451 BC-1077

Continued from page 12

What we find at the present time is the economist with a fair measure of influence in decision-making circles, supported by his theoretical framework and his methodological ally, the operations researcher. Simultaneously, the operations researcher has at his disposal a tool kit consisting of very flexible methodologies, many of which can be co-opted by diverse types of researchers.

But there are rumblings of unhappiness in the camp. Has planning become too "biased" toward an economics outlook; do economists have too much say in policy decisions, to the detriment of some types of values; and is planning becoming too technological because of the widespread employment of sophisticated operations research techniques? Where can we expect the economist and OR expert to fit into a team planning process?

It's fair to say that economists will continue to enjoy a fairly strong position in institutionalized planning processes and this is justifiable. But the assumptions on which their analyses are based will come under increasingly closer scrutiny. For instance, economists' policy positions based on effici-

ency arguments are becoming somewhat tiresome - not because relative efficiency isn't a desirable outcome of governmental action, but because it is often assumed by them to have such an overriding position in the priority list of social objectives. That part of economics which will become increasingly relevant to the planning team is what might be referred to as "political economics." While the term is an old one, it has been little-used for some time. Political economics (as I would describe it) has a slightly different view of the world than that of much existing economics dogma. It places an emphasis on the interaction of political institutions and economic phenomena. It recognizes the priority given by such institutions to matters such as income distribution and equity; and a more thorough investigation of some of the positive impacts which governmental intervention in the economy can have, and how these impacts must be traded off against concomitant detrimental impacts. In essence political economics more explicitly recognizes the value dimension of public policies, a dimension which economics now often claims it should dutifully avoid.

A trend of growing interest in political economics is discernible. This

augurs well for the planning process, for it implies that some of the rigid disciplinary walls which have surrounded so many of our professions are indeed succumbing to the needs of today. This does not imply that economics will be any less rigorous than it is now, but that a small part of the discipline will prove of increasing relevance to social planning processes.

The role of operations research in planning is also undergoing change. The early passionate romance with computerized mathematical models, in particular, may be waning slightly. One way of saying it is that the cost/benefit ratios of such models have not been as favorable as hoped. As models have grown in complexity, they have sometimes assumed a life of their own; their underlying assumptions have sometimes been lost from sight; output has been of questionable value. The tendency will no doubt be toward wider use of operations research methodologies, but for the most part the ultra-complex applications will decline in favor.

These prognostications point to the fact of life that economics and operations research will continue to play vital roles in institutionalized planning processes. If these activities are not imployed as part of a team process, they will no doubt continue to enjoy a life of their own. It is only to the advantage of planning practitioners of other backgrounds that the economist and operations researcher be included in cooperative activity. This will necessitate a certain amount of give-and-take, and will certainly require some formal preparation on the part of other team members just in order to communicate. The fields of economics and operations research are filled with jargon - generally necessary and certainly useful in identifying and analyzing problems of broad concern.



WHAT DO YOU DO WHEN THE LIGHTS GO OUT?

YOUNG & CO.

of Hawaii Offers the

STAY-LITE(R)



Everything is contained in existing fixture. No unsightly mountings or ugly battery packs.

Be prepared, call for information at 531-5992

Armstrong Ceiling Systems Resilient Floors Carpets

For information contact Gerry Evenwel Armstrong District Office, King Center Building, Honolulu Phone 946-5929



CLASSIFIED NOTICES

\$2.00 per line, 4 line minimum

Call 531-4137 to place your notice

in the May Issue.

FOR RENT

HARBOR SQUARE (Harbor Tower) 25th floor, mauka-Diamond Head view, 2 bedrm., ptly. furn., carpet, drapes, utilities included. Never occupied. Year or longer, \$450 mo.; less than year, \$475 mo. Call Lois Kittle, 531-4137; eyes, 538-1663.

PHOTOGRAPHY

Architectural Photography Rick Regan

949-7383

HAWAII'S NEWEST RESORT





Alexander Arms, at Alexander and Bingham Sts. has 2 Montgomery elevators.



The Hawaii State Capitol Building utilizes 7 Montgomery elevators.



P H & M Building on Coral Street showing Montgomery hydraulic elevator exterior shaft installation on an existing structure,



Two high-speed Montgomery elevators are installed in the Kealani, a 15 story highrise on the Ala Wai.



includes dependable and versatile Montgomery elevators.

Amelco Elevator is in the business of providing **vertical transportation** through standard and customized Montgomery elevators, ramps, power walks, and escalators.

Business has been very good because the product (and the service) is reliable.



Amelco Elevator installed 22 Montgomery escalators and 15 elevators at expanding Honolulu International Airport.

Anelco Elevator COMPANY 645 Halekauwila Street, Honolulu 96813

Phone: 521-6557

CROSSROADS PRESS, INGeo. Pettengill, Hon. AIA
P.O. Box 833
Honolulu, Hawaii 96808

AIA Library
1735 New York Ave., N.W.
Washington, D. C. 20006

BULK RATE U.S. POSTAGE PAID Honolulu, Hawaii Permit No. 778

WE'LL FLOOR YOU.

You'll be covered in glory with a carpeting choice from our spectacular line of quality materials. Rich wool carpeting from New Zealand and modern, wear-resistant synthetics. In hues that are vibrant or soft. In designs that are creative and tasteful.

In patterns to fit any decorating concept.

Call Honolulu Roofing Co., Ltd., 738 Kaheka Street, Phone: 941-4451.

