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February 1991

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President’s Message

Time for Unity

by Glenn Mason, AIA
President
Honolulu Chapter/AIA

Membership of the Honolulu Chapter/American Institute of Architects grew by a phenomenal 11 percent in 1990 and has more than doubled in size in less than 15 years. Its size places it within the top 10 percent of AIA chapters nationwide. We also are an organization which, only partly because of membership growth, has been constantly evolving during its history.

After spending much time for several years on the break-down of the AIA in Hawaii into two chapters under the umbrella of a State Council, it is time to focus on unity. This unity has both an inward and outward focus. Within our own chapter we must focus on communicating with our members and involving an ever increasing percentage of that membership in activities and committee work.

This will be accomplished by:
- Continuing and improving new member orientation sessions;
- Actively soliciting member participation in one of the 15 vital committees in our organization;
- Instigating executive committee meetings at which all committee chairs can exchange ideas and provide information for common use by all committees;
- Empowering the committees and charging them with the responsibility for creative approaches to accomplishing our goals;
- Releasing the directors of committee management functions to allow them to focus on policy issues and establishing direction for the chapter; and

- Encouraging members to use our strong suit, creativity, to make everything we do in this organization more interesting and enjoyable.

We must also communicate better with our fellow design professionals, the construction industry and the community in general. The days are gone when architects could avoid their responsibility to become an integrated part of the community. Indeed, many members also are members of other professional groups or community organizations. We are meeting with some of these related organizations to share concerns and are working together to accomplish shared agendas. This effort will continue and grow throughout 1991.

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Glenn Mason, AIA

Hawaii Architect is a monthly journal of the Hawaii Council/AIA. Subscriptions are $24 per year. Opinions expressed by authors do not necessarily reflect those of either the Hawaii State Council/AIA or the publisher. The appearance of advertisements or new products and service information does not constitute an endorsement of the items featured.
New legislation which requires architects to prepare and design more carefully to accommodate access for those with disabilities also presents extra challenges to design professionals.

Architects are once again challenged in their professional practices by enabling federal legislation. National AIA Building Performance and Regulations Committee Staff Director David Bullen, AIA, states, "The Americans with Disabilities Act, as you are aware, will have a large impact on the practice of architecture."

For more than 10 years, BOMC (Board of Coordination of Model Building Codes) has been working hard to develop a package of building code provisions addressing "Accessibility Design Standards For Persons With Disabilities." BOMC has representative members from each of the three national model building code organizations (ICBO, BOCA, SBCCI), NFPA, authors of the "Life Safety Code," and CABO (Council of American Building Officials) which publishes the "One and Two Family Dwelling Code."

ICBO (International Conference of Building Officials), which publishes the "Uniform Building Code," is planning incorporation of major code change proposals in the 1991 edition of the UBC. Hopefully, the Honolulu Building Department, in conjunction with the HC/AIA Codes Committee, will be able to tap BOMC and ICBO resources for accessibility design standards to produce proposed amendments to the recently adopted Honolulu Building Code (which is based on the 1988 edition of the UBC) sometime during the latter part of 1991. This will probably require presentations by the HC/AIA Codes Committee before the Hawaii Association of County Building Officials in June and the Honolulu City Council in September.

Architects currently are confronted by two federal laws which have a major impact on their professional design practices: the Federal Fair Housing Amendments Act of 1988 (FHA) for residential work, and the Americans with Disabilities Act of 1990 (ADA) for commercial and institutional projects.

Get the Facts On ADA

With the enactment of the 1990 Americans with Disabilities Act (ADA) in July, businesses are wondering what kinds of changes are needed to ensure their buildings comply. Many are finding architects to be a valuable resource.

The AIA has prepared an Accessibility Kit to help architects understand this important legislation. The kit is available to AIA members for $9.95 ($16.95 for non-members) by writing to the AIA Public Affairs Department, 1735 New York Ave. N.W., Washington, D.C. 20006.
The Federal Fair Housing Amendments Act of 1988 with design standards, first published in the Federal Register on July 15, 1990, together with the Americans with Disabilities Act of 1990, which has no design standards published to date, have caught many of us by surprise by their swift passage, extent of applicability, lack of binding regulations and omission of alternative solutions for meeting the intent of the legislation. (The Fair Housing Act did have prior regulations, but they did not include the design standards.)

By extending existing legislation prohibiting discrimination against those with disabilities, the Fair Housing Act affects all multifamily dwelling units of four or more units where the last building permit was issued after Jan. 13, 1990, or "available for first occupancy after March 13, 1991," regardless of the source of funding. The ADA covers area of employment, including the construction industry, public services and transportation, public accommodations and telecommunications services, and takes effect in stages spelled out in the legislation.

Although the acts have caused us to prepare and design more carefully to accommodate access to and within buildings by those with disabilities — good news for those who have had difficulty in this regard in the past — they also have presented an extra challenge to architects, developers and owners. These challenges come in the form of increased construction costs of such projects and the need to guard against possible misinterpretations or non-compliance to prevent complaints and resulting litigation such actions might incur.

This is just the latest step in the evolution of the "process of inclusion," expanding the definition of who is covered by provisions protecting the rights of "the people" referenced throughout the Constitution and other documents and culminating in the Civil Rights Act of 1968.

The Fair Housing Act, referred to as the guideline throughout the legislation, only makes recommendations on how to comply with the intent of the legislation. While designating HUD to administer it, local building authorities are the intended agency to review for compliance by eventually amending local building and housing codes to conform to the federal guidelines. Until such amendments are in effect, it is up to architects, developers or owners to construct facilities they interpret as complying with the act.
The Americans with Disabilities Act is a regulation enforced by several agencies. These include the Equal Employment Opportunities Commission and the U.S. Architectural and Transportation Barriers Compliance Board. The act does not change or invalidate any federal, state or local law which provides for equal or greater protection for the rights of persons with disabilities. It covers discrimination in the provision of public accommodations and employers with more than 25 employees beginning July 26, 1992, and employers with 15 or more full-time employees beginning July 26, 1994.

Presently, the Honolulu Building Department has taken the position to adopt only those provisions for occupancies other than those covered by the Fair Housing Act, as they apply to such construction, while letting other jurisdictions and regulations cover areas purposely left out. This is intended to avoid overlapping and confusing regulations.

The intent of this legislation is to make all areas or facilities accessible (excluding mechanical and other hazardous areas), however, emphasis is given to facilities used by the general public and common areas leading to individual dwelling units. Presently, single-family private residences are exempt from the act. In addition, provisions for structural impracticability also may exclude portions of other projects such as those on steep hillsides. However, once it is determined that access is possible along an “accessible route,” every unit along that route must include provisions to accommodate accessible items.

For multifamily dwelling units, Fair Housing Act guidelines specifically point out that “... when departures from ANSI are appropriate and permissible and...
the level of accessibility necessary to achieve compliance . . . builders and developers may choose to depart from these guidelines and seek alternative ways to demonstrate that they have met the requirements of the Fair Housing Act.” These alternatives include providing adequate blocking within the structure and properly-sized halls and corridors. Rough openings for doors are deemed acceptable, with the cost of any modifications such as grab bars and specially designed cabinetry and appliances to be obtained and paid for by the individual requesting it.

It has been repeatedly pointed out in seminars dealing with accessibility that the main emphasis of persons with disabilities has been to be included as much as possible in the activities non-disabled persons enjoy. While special provisions for the exclusive use of persons with disabilities is preferable to no access, it is not desirable to call attention to this fact. Therefore, any provisions for accessibility should blend in with the rest of the project.

Although currently the focus in addressing the needs of persons with disabilities, as users of interior and exterior building environments, is on architects as design professionals, this situation will eventually change. This is because we are bound to see inventive design modifications to wheelchairs, household appliances, furniture, equipment, kitchen and bathroom counters and cabinets, hardware and plumbing fixtures in the near future as we move toward major improvements in accommodating persons with disabilities.  

Andrew C. Yanoviak, AIA, CSI, is chairman of the HC/AIA Codes Committee. Duane Cobeen, AIA, is chairman of the HC/AIA Building Code Subcommittee. John Marko, AIA, CSI, is chairman of the HC/AIA Task Force on Access Standards and Disabilities.
Planning for the Garden Isle’s Future

General Plan Update acknowledges Maui County as one of America’s special places

by Christopher L. Hart

The prophet of “neotraditional town planning,” Andres Duany, Miami architect and planner, recently praised Maui’s proposed general plan as “fabulous, almost impeccable.”

“The general plan for Maui is the single best plan I have ever read,” Duany told some 75 architects and planners at a recent seminar sponsored by the Maui Chapter/AIA.

This was the brightest positive comment received after 11 public hearings, and should stimulate curiosity about what is new on the planning horizon in Maui County.

Since 1980, Maui residents have experienced significant growth with associated impacts. For example, between 1980 and 1988, it is estimated that Maui’s population has increased by 34 percent from 63,000 to 84,000.

With 10 years of growth impacts clearly in mind, the 1990 General Plan Update acknowledges Maui County as one of America’s special places, and points out that it is essential to protect and nurture the environmental and social elements that give character, beauty, and peace that reinforce a sense of community — a sense that we perceive as being lost when our rural quality of life and environment are being seriously eroded.

Therefore, the fundamental thrust of the General Plan Update is to learn from the past and

Fundamental to Maui’s development is learning from the past and charting a clear course through the ’90s.

Proposed amendments to the Maui General Plan discourage further urban development of the shoreline.
and open space environment are essential to fostering community well-being, the Maui General Plan consists of four major themes.

**Protect Agricultural Land and Rural Identity**

Many residents of Maui County live in small towns surrounded by thousands of acres of open agricultural and rural land which supports grazing and various crops as an open-space setting for a distinctive network of country towns. This setting, together with unobstructed views of the mountains and the ocean, is the county's rural identity. It is important that this quality of life and environment be maintained for present and future generations.

**Prepare a Directed Growth Plan**

Proposed amendments to the 1990 General Plan incorporate creative goals, objectives and policies designed to address preservation of surrounding agricultural and rural lands as an open space resource. Maui's open space will be primarily preserved by limiting the urban sprawl of existing major service communities and country towns and by defining a directed growth plan with a vision of at least 50 years.

The 50-year directed growth plan will provide for future urban growth in the context of sensitive urban redevelopment, infill and a new, expanded network of environmentally located and planned country towns, similar in scale and character to those that exist.

**Protect the Shoreline and Limit Visitor Industry Growth**

Proposed amendments to the General Plan discourage further urban development of Maui's shoreline and place a limit on visitor industry growth to what is currently community-planned.

In response to such limitations, the proposed amendments also advocate an aggressive shift toward economic expansion in research and technology, agricultural diversification and the light manufacture of “Made in Maui” products.

**Develop a Solid Foundation for Managing Growth**

The 1990 General Plan revision incorporates the enabling legislative framework for an equitable growth management process in which governmental powers to regulate, tax and spend revenue are consistently and concurrently balancing growth demands against human service needs and physical infrastructure supply.

In keeping with the foregoing major themes, a series of policy development guidelines for revising the General Plan have been formulated. The following guidelines form the technical basis for amending the General Plan:

- Protect the right to farm and define a strong rural quality of life and open space environment goal for Maui County;
- Identify agricultural and rural land as a resource to be carefully protected;
- Use the rural zoning district as an orderly growth transition between urban and agricultural zones (See Figure 3);
- Increase the range of minimum lot sizes in the agricultural district and generally prohibit the reclassification of prime agricultural land to urban or rural;
GROWTH LIMITS
(AN EXISTING COUNTRY TOWN)

Rural Growth Limit
(Transition Zone)

Collector
Road

Rural
Agriculture

Collector
Road

Existing Urban

Urban Growth Limit
(Optimum Growth)
(Urban Reserve-UR)

Arterial

Highway

Agriculture

State Conservation District

Shoreline

Ocean

FIGURE 2
• Establish fixed urban and rural growth limits surrounded by open space for all existing and planned communities. Growth limits are to be defined after analysis to determine the optimum growth potential for each community (See Figure 2);
• Direct growth in the context of sensitive urban redevelopment, infill within existing communities and the establishment of an expanded network of environmentally located and planned country towns as new communities similar in scale and character to those that exist;
• Discourage shoreline development and limit the visitor industry to what is currently community planned;
• Establish environmentally- and socially-acceptable transportation systems which relate to land use and incorporate resident and visitor transit; a network of community based park-and-ride facilities and substantially less dependence on the automobile;
• Provide an efficient and comprehensive network of human service programs involving public agencies, churches and private non-profit programs free from competition and overlap;
• Legislatively establish an equitable growth management process which allocates development and anticipates infrastructure needs based upon a sustainable rate of growth designed to ensure economic viability; and
• Implement a geographic information system (GIS) or land-based computerization at all levels of Maui County government as the information management tool primarily supporting the growth management decision-making process.

As the initial component of the total planning process for Maui County, the General Plan is, by design, a broad policy document. It comprehensively establishes goals, objectives, policies and primary implementing actions which portray the overall direction of the county's future.

The General Plan serves as the basis to effectuate desired improvements in the social, economic and natural environments of Maui County. The implementation program to effectuate the General Plan requires the coordination of the 44 primary implementing actions in a planned timing sequence.

Many Maui County residents believe that if the General Plan is adopted by the County Council and the implementing actions carried out in the proper timing sequence, Maui County will be prepared to deal with the pressures of growth in the 1990s and to perpetuate a wholesome rural quality of life and environment for future generations.  

Christopher L. Hart is the former planning director for Maui County.
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Architecture in Government

Tracking Capitol Design Decisions

by Ken Takenaka

Architects, like most businesspeople, are greatly affected by the decisions made by our state Legislature. In the case of design professionals, State Statute, Chapter 464, HRS, covers the licensing and qualifications of architects and other design professionals.

However, due to the nature of their work, architects are more closely regulated by the government than most professionals and, therefore, more greatly affected by governmental rules and regulations. Such rules and regulations determine not only who can work as an architect, but also the work product. Regulations such as building codes, land use ordinances and other design requirements all affect the architect’s operations, as do general laws such as workers’ compensation, taxes and tort liability, to name a few.

It is, therefore, in the personal interest of each and every design professional to become aware of and actively involved in the laws that affect his profession.

In 1990, there were 1,459 bills introduced in the state Senate and 1,425 bills introduced in the state House for a total of 2,884 bills. Of those, along with those carried over from the 1989 legislative session, the Legislature passed 384 measures. This means that only 13.3 percent of all bills introduced in the 1990 Legislature were passed and only 349 actually became law, due to the veto of 31 measures by the governor and four proposed constitutional amendments that required voter ratification.

Given the rather slim chances of a bill that is introduced actually being enacted into law, what are the steps that a bill must go through in its journey to the governor’s desk?

All bills must pass three readings in each house, however, there are hearings along the way at which the bill is closely scrutinized by committees assigned to work on it prior to voting.

The president of the Senate and the speaker of the House determine which committee or committees a particular bill will be referred to for further action. A bill may be referred to more than one committee if its subject matter covers items that overlap the jurisdiction of more than one committee. For example, all measures that require funding or have financial implications are referred to the money committees — The Ways and Means Committee in the Senate and Finance Committee in the House. It is at the hearings held by these committees that the public gets to provide its input into the decision-making process of the Legislature. The chairperson of each committee determines whether or not a bill receives a public hearing.

Also of critical importance is the time constraints imposed by each body in the progress of a bill.

It is in the personal interest of each and every design professional to become aware of and actively involved in the laws that affect the profession.

Due to the days that the Legislature has to conduct its business, strict deadlines are set for a bill to move from a committee to voting on the floor and for passage to the other house.

All design professionals should become acquainted with the legislative process and its time limits if they are to become an effective advocate for the design community. Participation in the lobbying efforts of the newly-formed Hawaii Council/AIA and your local AIA chapter is one effective way to participate and ensure that the design community’s voice is heard by your elected officials.

Ken Takenaka, a Honolulu attorney, is the legislative consultant for the Hawaii Council/AIA.
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On the way home, as I made a quick pass through the local Safeway, I was struck by the fact that a pound of broccoli cost more than a pound of structural steel.

It might have been the price of broccoli. I had been in the office one Saturday morning trying to make a decision on which structural system to use for a midrise office building. On the way home, as I made a quick pass through the local Safeway to replenish the larder, I was struck by the fact that a pound of broccoli cost more than a pound of structural steel.

My mind began to wander as I pushed my cart down the rows of canned goods. By the time I made it back to the parking lot, I was thinking about what might happen if we were to price buildings by the pound. Was there a correlation between the weight of a building and its ultimate cost?

It started getting complicated when comparisons of materials were considered. Each type of material had its own complications and a required set of assemblies that went with it. Steel had to be fireproofed and provided decorative covering. Concrete requires extensive form work and usually needs additional covering to produce a desirable finish. All require expensive labor and field work.

**It was not until I began** to think of non-traditional construction methods that I felt there might be some realistic basis for the price-per-pound theory. Even then, the application of the construction method would be limited to specialized projects.

The lightest framework I could imagine is one in which the entire structure would be in tension. In virtually every type of building system currently in use, the major force component is compression. Most materials, however, display far greater strength in tension than they do in compression. Try pushing a rope for example. As hard as I tried, I could only think of two systems where tension was the predominant force: cable nets and pneumatics.

In a simple cable net a fabric is supported by a central shaft and the fabric is stretched, tent-like various directions. When several bent poles, perhaps of different heights, are used in combination with asymmetrical fabric layouts, some very elegant shapes begin to appear.

**Just as a design experiment**, try this: Take a piece of elastic fabric and cut it into a shape. Pin the edges down to a surface at several points around the perimeter and then start inserting sticks of differing length under the fabric and standing them up. The fabric will define its own shapes. The combinations are almost limitless and often very handsome as sculptural forms.

This type of structure has been used in numerous art places. At the recent World's Fair exhibitions in Canada, there was a notable example where a couple of acres of display space were housed for the duration of the fair. I am told that a similar system is used in Guam to provide weather protection for an outdoor recreational complex at a well-known hotel.

If this were to fit the theory, however, it would still have to be a system where the structure was...
on the Cost of Broccoli

all in tension. In this case, the fabric is but the supporting poles are not. Even so, cost of this type of structure is relatively low when compared to cost of conventional construction.

**Perhaps the most obvious** use of a tension structure would be a pneumatic dome. Hundreds of them exist around the country, ranging from public swimming pool and tennis court covers to the roof over a major football stadium in Michigan. The student union building at the University of Florida has large sections of translucent fabric roof supported by air.

Supporting the fabric is fairly simple. It’s like blowing up a balloon. All that is required is sealing the edges and supplying slightly more pressure on the inside than the atmosphere applies to the outside. Unlike a balloon, however, you can’t tie a knot in the feed tube and forget it. Because of factors such as the porosity of the fabric and the air loss at the entrances (even though you use air locks), a constant supply of air must be provided to maintain the positive pressure on the interior. It doesn’t take much but it does have to be there.

**Very little research** is required to uncover successful applications of pneumatics. Portions of the early warning radar systems in the frozen waste of the north are surrounded by inflated domes. In temperatures which usually stay well below the freezing mark and where winds are often in excess of hurricane force, these structures have been protecting the delicate equipment inside for more than 30 years. Few roofing systems could make that claim.

Fairly recent developments include new fabric combinations of ever lighter and stronger potential and with built-in rip stops designed to minimize damage. The problem of flame spread and fire resistance was attacked long ago.

Other than the fact that they are unorthodox, the most frequent objection I have heard to these building systems is security. Someone always says, “Gee, some vandal could just put a knife through that and walk right in.” In spite of the toughness of some of the new materials this is certainly true. On the other hand, the same vandal could put a brick through a glass window with equal ease.

**What happened to the** cost per pound theory? It is alive and well, thank you. Air-supported structures are among the least expensive available. The latest figures I have heard quoted are still under $15 per square foot. I have not tried pricing them by the pound any more than I have a conventional concrete structure, but I would still be willing to place a wager on the outcome.

If we, as architects, use our imaginations in inventive enough ways we will probably discover more and more applications for these non-standard systems, and probably do it with less cost.

I wonder if any one has ever tried to price broccoli by the square foot?

Frank A. Lamb, AIA, is with Fox Hawaii, Ltd.

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It was not until I began to think of non-traditional construction methods that I felt there might be some realistic basis for the price-per-pound theory.
Castles in the Sand

Beachcombers along Maui’s Kamaole Beach last November who suddenly found themselves surrounded by lions and tigers and monster trucks, oh my!, weren’t on their way to Oz. Instead, they had happened on the island’s 14th annual Maui Sandcastle Contest, co-sponsored by the Maui Chapter/AIA.

The Nov. 25 event drew 15 entrants and inspired creations ranging from a Christmas crocodile to volcanoes to the seemingly staid sand castle.

Cash prizes were awarded in several categories. The Maui architectural firm Riecke Sunland Kono took top honors in the Large Group category with their interpretation of Noah’s Ark. **HA**
Opposite page above: This entry, appropriately titled “Castle,” brought third place honors to John Cano in the Small Group category. Below: Sean Kimmey’s “Monster Chevy” took honorable mention in the Small Group category.

This page: Riecke Sunnland Kono Architects, Ltd. took first place in the Large Group category with a model of “Noah’s Ark,” complete with animals two-by-two.
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[Signature]

DATE: 2/1/91
Honolulu Architect Elected National AIA Director

Evan D. Cruthers, AIA, president and chief executive officer of Media Five Ltd., recently was elected to serve a three-year term as an AIA national director.

Honolulu Sunrise. Cruthers also is a member of the University of Hawaii Foundation President's Club.

The 45-member board of directors consists of the AIA executive committee, 34 directors elected from 19 geographic regions, a public director, student director and the president of the Council of Architectural Component Executives.

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February 1991 Hawaii Architect 25
Philip K. White Honored for Outstanding Projects

Philip K. White Associates was honored for its architectural design of two award-winning projects: the VeriFone Building and the Hawaii Maritime Center’s Kalakaua Boathouse.

The two-story, 34,000-square-foot VeriFone Building at Mililani Technology Park received the Judges Award in Hawaiian Cement’s 1990 Concrete Achievement Awards Program for outstanding concrete construction in Hawaii. Philip K. White Associates used a construction technique called “tilt-up concrete,” a method that is unusual in office design.

The Kalakaua Boathouse, developed by the Hawaii Maritime Center, received the first place award in the City & County of Honolulu’s annual Project of the Year competition. Philip K. White Associates and Duane L. Cobeen Associates were the principal consultants in a joint venture to design and build the maritime museum at the Honolulu waterfront.

Selected from a slate of 13 nominations, the Kalakaua Boathouse was cited “for excellence in meeting the city and county objectives and policies in the categories of physical development and urban design, culture and recreation and economic activity.” The project also was recognized for its sensitivity to preserving Honolulu’s maritime heritage while promoting the waterfront as one of the city’s great gathering places. HA
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Architectural Librarians Form Hawaii Chapter

A Hawaii Chapter of the Association of Architectural Librarians has been founded in Honolulu through the efforts of Melina Renee of Architects Hawaii and Cheryl Zebrowski of CDS International. The purpose of the group is to informally share ideas and solve the information needs of local architectural firms, including those that do not yet have formal libraries.

The national Association of Architectural Librarians is a professional organization with 550 members which promotes effective interaction between architects and architectural librarians. It publishes a quarterly newsletter and holds an annual conference in conjunction with the American Institute of Architects.

The membership of the new local chapter has grown to more than a dozen members who have found many common interests and problems to explore. Meetings are held monthly. For more information, call Zebrowski at 524-4200 or Renee at 523-9636.

Meeting for Parade Entrants

A preliminary informational meeting on the 1991 Parade of Homes will be held Feb. 26 at 9 a.m. at the Building Industry Association of Hawaii (BIA) Conference Room at 1727 Dillingham Blvd.

Hawaii's premiere showcase of new and remodeled homes, the Parade of Homes is sponsored annually by the BIA and Hawaii Association of REALTORS®.

All prospective entrants are welcome to attend the informal meeting at no charge. BIA staff and Parade of Homes committee members will be available to provide information and answer questions about this year's event. Coffee and doughnuts will be served. For reservations, which are required, call the BIA at 847-4666.

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NOTE: Merbau will actually oxidize to a darker hue and may contain natural mineral deposits that may appear as tiny highlights.

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3.9 hardness

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1.8 hardness
No matter if your taste in decorating is country or modern, bold or subtle, dark or light, there is a quality Kährs floor for you. And, like all Kährs floors, they can be installed on most existing floors. Even below grade.

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Unlike many laminated floors that have a thin surface rotary-cut veneer, Kährs has a solid lumber-cut 3/8” wood wear-layer with an overall board thickness of 7/16”.
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Stain Guard IV finish is twice as durable as conventional polyurethane. It’s no-wax surface protects the natural beauty of the wood and makes cleaning up spills easy.
Kährs also offers a convenient line of floor care products to keep your floor looking beautiful for many years.
Refer to our Hardwood Floor Care Guide #5CO4.

Floor Stability

Kährs’ floors are cross-laminated to give them 75% more resistance to expansion and contraction than normally occurs in solid wood floors. The result is less gapping and cracking, so your floor stays beautiful longer.

Precision Millwork

Kährs floors are 3/8” thick and manufactured so the boards fit together with virtually no variation between boards. Unlike bevel-seam floors, Kährs seams won’t collect dust or dirt.

Moisture Protection

Kährs floors are not impervious to water, but they are moisture resistant with four protective layers:
1) Stain Guard IV finish
2) Water resistant glue between each laminate layer
3) Sonicore ¾” sound and thermal insulator foam underlayment
4) A 6 mil. plastic moisture barrier
Refer to our underlayment information guide IN04.

*Oil-modified
The beauty of a Kährs floor is more than skin deep. We build in quality. Our tough quality controls and attention to detail have helped Kährs become the largest hardwood sawmill in Europe.

Kährs 3-strip boards are ¾" thick × 7 7/8" wide × 95 3/8" long. Tongue & groove side match and solid hardwood tongue & groove end match.

Quality Assurance
Kährs 5-year Limited Residential Warranty guarantees that its products will be free from manufacturing defects for a period of five years or Kährs will repair or replace materials.* Refer to Kährs specifications guide # VT01

*See retailer for a complete copy of Kährs Warranty.

Radiant Heat Floors
Kährs wood floors are recommended for installation over most radiant heat subfloors, including both concrete slab and wood subfloors. Ask your dealer for information sheet # IN01 for special underlayment recommendations.
1. Start laying along the longest wall. Allow 1/2" expansion gap along all vertical edges.

2. Cut board to complete first row. Apply glue to end groove and place board.

3. Start second row with remainder of cut piece. Apply glue to end and side grooves.

4. Now gently tap the board into place.

Finish off your floor with factory finished wood mouldings from Kährs that match your floor. Ask for information guide #1N02.

NOTE: Nail-down installation is not recommended. Mastic installation is available. See your dealer for information guide #1N03.
Kåhrs floor care products help ensure years of beauty.

Hardness Comparisons (Brunell Test)

- Pine 1.8
- Birch 2.6
- Oak 3.9
- Ash 4.4
- Hard Maple 4.8
- Merbau 4.9
- Smoked Oak 6.0

The higher the number, the harder the wood.

An Ounce of Prevention

Any floor can be damaged by abrasive dirt or sharp objects. These easy preventative steps from the time the floor is new can help ensure years of enjoyment from your Kåhrs floor.

- Proper movement of large appliances
- Cocoa mats at entrances
- Apply TOP COAT on high traffic areas or white-finished floors
- Area rugs in high wear spots
- Apply felt chair protectors or wide-based casters
Care and Maintenance

Kährs Stain
Guard IV protection lets you wipe up spills quickly and easily. Kährs cleaners, Kährs cocoa mats, daily vacuuming, and Kährs felt floor protectors are recommended to prevent dirt or grit from scratching the floor’s finish.

Refer to Kährs Floor Care Guide #FC04.

All Kährs floors can be protected with satin top coat urethane. Glossy urethanes are available.

Stenciling

Personalize your Kährs floor with your own stencil design for a touch of country charm. Lightly sand surface before painting. Then protect your painting with Kährs Top Coat.

See our special stenciling information guide #FC05.

Refinishing

Kährs floors can be stenciled or refinished without removing the factory finish. To protect stencils or renew luster levels in high traffic areas, Kährs Top Coat urethane can be professionally applied.

Refer to Kährs installation and refinishing guide #FC02.

Resurfacing

For fashion reasons, or after years of abuse, you may wish to resurface your Kährs floor. Unlike thin veneer floors, it can be sanded and refinished professionally or recolored to match your new decorating scheme.

Merbau and Smoked Oak are not recommended for lighter staining due to their dark hue.

Ask for our information guide #FC03.

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UH Sponsors Tour of Western Europe

The University of Hawaii at Manoa, in conjunction with the School of Architecture, will sponsor a 30-day study tour of Western European cities from May to June 1991.

"Architecture of Western Europe: The Grand Tour" will include stops in France, Spain, Italy, Austria, Germany, Holland and England. The tour will culminate in London for seven days of independent study.

Students can earn four to five credits in Architecture 369 under the instruction of UH Associate Professor Leighton Liu, who has directed three study abroad programs to Europe.

Participants will be encouraged to experience some of the world's greatest architectural achievements as integral parts of the historical, cultural and physical contexts which produced them.

Tour cost is approximately $3,500 plus tax and includes economy airfare, accommodations in tourist class hotels based on two people per room, continental breakfasts and some dinners, private motor coach for transfers and touring, professional tour escort and local guides and entrance fees. Costs do not include transportation and lodging expenses during the seven days of free time and other personal expenses.

Tuition is $220 to $275 for Hawaii residents and $600 to $675 for non-residents.

For more information, contact:
Study Abroad Center
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956-6958
or
Leighton Liu
UHM School of Architecture
2560 Campus Road, CA 4-3
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956-8311

CECH Sponsors Student Competition

The Consulting Engineers Council of Hawaii will award $1,500 to the winning applicant in a competition for engineering students at the University of Hawaii. CECH will sponsor the winner to the national competition in Washington, D.C., where scholarships totaling over $20,000 will be awarded.

Applications are available from the College of Engineering dean’s office in Holmes Hall. For more information, call Joyce Haupt at 533-2263.

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HC/AIA Forms Environmental Committee

In response to local, national and global needs, the Hawaii Council/AIA has formed a Committee on the Environment, patterned after the national AIA committee which addresses environmental concerns ranging from hazardous building materials to dwindling rain forests.

The committee will be chaired by Andrew Charles Yanoviak, AIA, CSI. Vice chairman will be Sidney E. Snyder Jr., AIA. Alfred Preis, FAIA, and former national AIA Secretary Chris Smith, FAIA, will serve on the committee in an advisory capacity.

Other members include Frank Haines, FAIA, Wes Kinder, AIA emeritus, Lee Davis, AIA, and Gibb Fischer, AIA. The committee will meet on the second Wednesday of each month at noon at the Honolulu Chapter/AIA office. Anyone wishing to join the committee should contact the HC/AIA office at 545-4242.

Maui Firm Expands


Gima, Yoshimori began in 1969 as the Maui office of Architects Hawaii, Ltd. In 1984, Stan Gima and Alvin Yoshimori reorganized the firm and began operating as Gima, Yoshimori & Associates, AIA, Inc.
EXPO '91
Exhibitor
Meeting Set

An informational breakfast meeting for exhibitors in the 21st Annual Building Materials EXPO will be held Thursday, Feb. 7 at 8 a.m. at the Honolulu Country Club.

Hawaii's major exposition of new construction materials, equipment and services, Building Materials EXPO is sponsored by the Building Industry Association of Hawaii (BIA) and GECC Financial. The 1991 EXPO will be held March 13 and 14 at Neal Blaisdell Center in Honolulu.

BIA staff and EXPO committee members will provide information on all facets of the exposition at the breakfast and be available to answer exhibitors' questions. Aloha Tower Associates will make a presentation on this year's special feature exhibit on the waterfront at Aloha Tower.

For reservations, which are required, call the BIA at 847-4666.

Story Ideas Sought

Hawaii Architect is seeking writers to contribute to the magazine. If you have ideas for articles, or need deadline or focus information, please contact Aimee Holden at 621-8200 or write: Hawaii Architect, 1034 Kilani Ave., Suite 108, Wahiawa, HI 96786.

The Waikiki world equates with Paradise continues to expand its service to our major industry with yet another example of quality construction. Many state-of-the-art applications of concrete were used here to help make the Prince Hotel a prime visitor attraction as well as a destination.

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Optimism Forecast for Hawaii’s Economy

A national recession is not likely to produce a recession in Hawaii in 1991. Depending on the severity of any mainland recession, however, a slowdown in Hawaii could occur in 1992, predict Bank of Hawaii economists in the 1990 Hawaii Annual Economic Report. A lower estimated growth of gross state product (GSP) in 1991 will be, in part, the result of petroleum price increases linked to the Gulf crisis.

David Ramsour, Bankoh’s chief economist, says in a war-free environment, Hawaii’s GSP rate, about 4 percent in 1990, can be expected to remain above 2 percent and as high as 3 percent in 1991.

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Development and tourism place the economy’s total income and output at just under $25 billion, with real economic growth ranging from 5.5 percent to 7.5 percent in each of the last three years — consistently better than that of the United States as a whole,” according to Ramsour, who adds that neither investment growth nor visitor arrivals from Japan that contribute to the GSP will become negative.

A slowdown in home price appreciation was apparent by mid-1990. Prices on Oahu began to soften later in the year, while neighbor island home prices remained high. The role of foreign (principally Japanese) investors continues to back most major commercial projects under way in Hawaii.

Construction activity in 1991 is expected to absorb some of the slack that might develop in other areas, although its growth also will be slower, Bankoh economists predict. An increase of 5.4 percent in construction and related industries is forecast for 1991.


Ramsour attributes the rapid inflation rate in Hawaii to pressures placed on the local economy by offshore investment, a tourism boom of unexpected dimensions and low unemployment rates.

Hawaii’s labor market remained one of the tightest in the nation in 1990, Ramsour notes. Hawaii’s labor force growth rate and employment growth rate increased to just over 2.5 percent in 1990 compared with 2 percent in 1988 and 1989. Some slowing in the GSP will be caused by labor and resource shortages, which are likely
to remain below 3 percent, rising gradually this year.

Hawaii visitor arrivals reached nearly 7 million by the end of 1990. In the first 10 months of 1990, eastbound visitor arrivals increased 14.1 percent, westbound arrivals were up only 1.3 percent, and the total visitor count rose 5 percent. Bankoh expects arrivals in 1991 to be down 0.5 percent for westbound visitors and up 6.0 percent for eastbound, for a total of 1.5 percent growth in visitor arrivals. Total visitor expenditures are expected to rise about 7 percent in 1991, from $12.2 billion in 1990 to $13.1 billion in 1991.

Hawaii’s financial institutions continue to exhibit exceptionally strong performance, with non-performing loans remaining the lowest in the nation by a large margin. Hawaii had the nation’s lowest percent of non-performing real estate loans at 0.7 percent.

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Continued from Page 7

We have been successful in presenting opportunities for our members to learn more about the profession. We must accept the greater burden of telling the community what it is we do, as well as participating in community efforts to improve Hawaii for all its people. Our commitment to contributing to solve the state's housing crisis is expressed in the upcoming housing design competition sponsored by the Honolulu Chapter. Efforts by the Codes Committee to formulate and win acceptance for modifications to our codes also will contribute to an improved housing situation.

We will continue to speak out about design issues when appropriate. Our public relations and public education committees are constantly searching for new ways to get our message across about good design and better rural and urban environments.

We have a tremendous pool of talent in the Honolulu Chapter. In 1991 we will make every effort to involve as much of that talent as possible in improving our professional lives and the environment we share with everyone in Hawaii. HA
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New Members

Seven Sign Up

As the New Year unfolds, the Honolulu Chapter/AIA welcomes seven to its ranks.

AIA Members

Robert S. Nitta, with Hemmeter Design Group, is a University of Hawaii graduate. He and wife, Trina, have three children, Chad, 8, Ramie, 5, and Brittnie, 2 months.

Employed by Richard M. Sato & Associates, Inc., Loren G.S. Lau holds an associate’s degree in architecture from the College of San Mateo and a bachelor’s of architecture from the University of California at Berkeley. His hobbies include fishing, snow skiing, cooking and photography.

A Harvard University graduate with a master’s in architecture, Ronald Mitchell is employed by Wimberly Allison Tong & Goo. He also holds a bachelor’s degree in English from the University of Rhode Island and lists scuba diving as his favorite pastime.

Michelle R.M. Platter, with Design Partners, Inc., earned a bachelor’s of architecture from Cal Poly Pomona.

Associate Members

D. Thomas Lum, employed by Arthur Kimbal Thompson & Associates, Ltd., holds a bachelor’s of architecture from the University of Hawaii. He lists fishing, beach activities, racquetball and basketball as his hobbies.

A graduate of the University of Southern California with a five-year professional degree in architecture, Paris Rutherford is employed by Media Five Ltd. Surfing, swimming and art are among his pastimes.

Professional Affiliates

Susan Katherine Choi of National Laminates, Inc. is the newest professional affiliate to join the HC/AIA. Her training includes a bachelor’s in education and a PH.D. from the University of Hawaii. She also holds a private pilot’s license, real estate license and real estate securities license. She has two children, Jessica, 13, and Tracey, 8, and lists home improvement, travel, music and fiber art as her hobbies.

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New Products

Onsite Wastewater System Approved

The Waipahu firm All Islands Soil Filters of Hawaii recently received state and Department of Health approval for its alternative to banned cesspools. That firm, a division of the Mainland firm the California Mound Corporation, specializes in developing innovative solutions to rural wastewater disposal problems.

Working with Gov. Waihee and Dr. John C. Lewin, director of health, All Islands Soil Filters developed a way to upgrade the common "puka" design so that it removes the bacterial threat to the state's drinking water supply.

The concept of the soil filter was deemed to be "consistent with the direction the state is now moving in with regards to on-site wastewater treatment and disposal," according to Lewin.

"Hawaii's year-round weather conditions and unique groundwater/near-shore resources make an ideal setting for such wastewater systems. We hope to see viable systems become an integral solution to Hawaii's wastewater needs," Lewin added.

For more information, call 262-6211.

Tinted Veneers
Newest in Color Quest Line

Craftwood Tinted Veneers, 12 colorwashed flat cut oak veneers coordinated to the manufacturer's Color Quest solid color laminates, are new from Ralph Wilson Plastics Co.

Craftwood Tinted Veneers are stress-relieved, bookmatched premium grade oak veneers, ready to finish and available in sheets with a high pressure phenolic laminate backer, or flexible and semirigid paper backers. The tinted veneers are ideal for cabinetry, built-ins and cladding on walls, wainscoting, columns and other architectural details.

In addition to the standard line of 12 tinted veneers, special-order tints matched to any of the company's 110 Color Quest solid colors are available. This special service assures designers of an almost limitless range of color options, keyed to today's color trends.

For more information about Craftwood Tinted Veneers, contact National Laminates, Inc., Hawaii's Wilsonart representative, at 833-4344.
The Waikiki Beautification Project started from the ground up, literally. From Kalakaua Avenue at Ala Moana clear down to the intersection of Kapahulu, 150,000 square feet of architect-specified Paver Tiles were laid in four-inch squares complementing Hawaii's sand and earth tones. In addition to looking beautiful, the tiles are skid-resistant, have a low moisture absorbency, and are extremely durable. Next time you're in Waikiki, count the tiles. You'll find more than a million examples of our art.

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