

Hawaii Pacific Architecture

April 1996

Public Buildings

Art in Public Places

Design Award Lecture

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CONTENTS

PUBLIC BUILDINGS

- 6 **A Sense of Place in Campus Design**
Creating an identity for educational institutions
by Grant Murakami, AICP
- 10 **Marks of a Memorable City**
Design standards foster excellence in planning
by Benjamin B. Lee, AIA
- 12 **Capitol Idea**
A firsthand look at the design of the state Capitol
by Frank S. Haines, FAIA
- 20 **Impact on the City**
Enhancing the environment with public spaces
by Charles R. Sutton, FAIA
- 22 **Kihei Gets a New School**
Developer comes to community's aid in model project
by Eric Taniguchi, AIA
- 24 **Weathering the Storms**
Keeping Civil Defense shelters up to par
by Norman Ishikawa

ART IN PUBLIC PLACES

- 16 **The Art of Preservation**
Foundation works to keep art open to all
by Kimi Sakuda

CLADDING

- 27 **Siding Alternatives**
Practical measures to combat the weather

DEPARTMENTS

- 19 **News Briefs**
- 26 **Special Event**
Japanese Architect Shares Design Insight
Final lecture in series set for April 10
- 28 **AIA Honolulu Design Award**
Kober/Hanssen/Mitchell Architects
- 30 **A Lawyer's Perspective**
Dis 'n Dat
by Michael D. Tom, J.D.

IN THIS ISSUE ...

Hawaii Pacific Architecture focuses on public buildings. Grant Murakami, AICP, evaluates the elements needed for good campus design while Benjamin B. Lee, AIA, looks at the city's design standards. A historical perspective of the construction of the Hawaii state Capitol is offered by Frank S. Haines, FAIA. The perpetuation of art is also examined in an article by Kimi Sakuda. The cover is a combination of two public art pieces, "Maui Releasing the Sun" by Shigeharu Yamada and "Nets of the Pleiades" by Pat Hickman. Yamada's cast bronze sculpture graces Kahului Airport and Hickman's cast aluminum gate welcomes visitors to the Maui Community Arts & Cultural Center.

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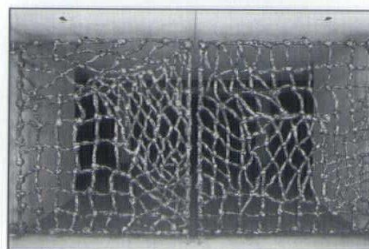
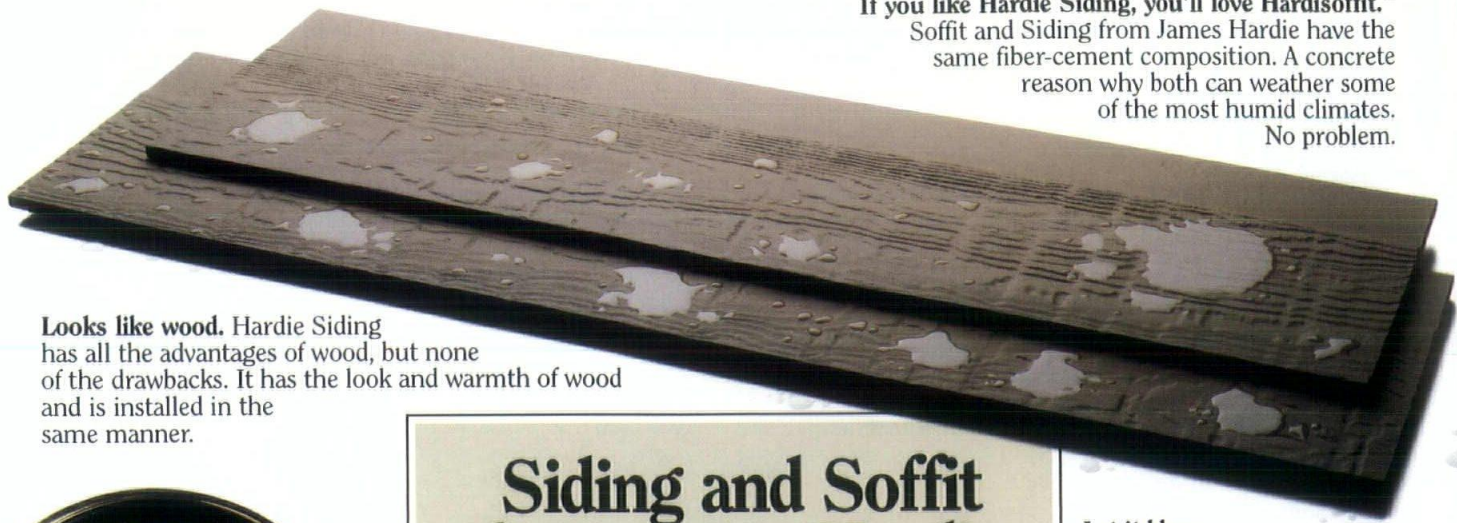


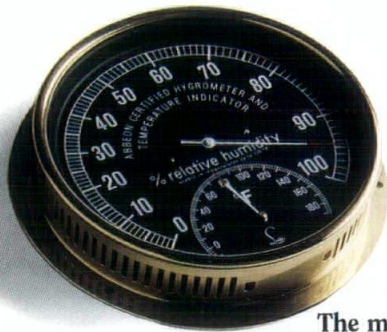
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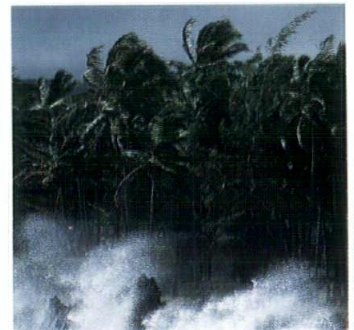
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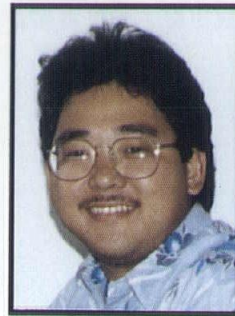
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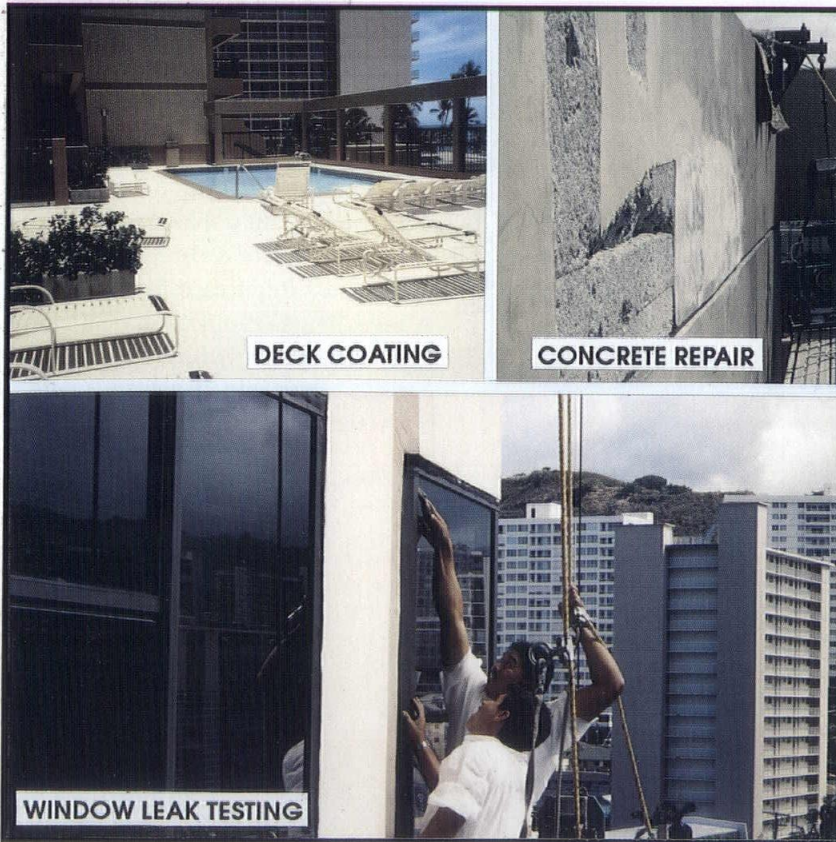


Heading a team of over 40 technicians are left to right:
Alvin Nishikawa, Ken Matusumura, John Kobayashi,
Al Gardner, Steve Kramer, and Jim Hiramatsu

Meet Alvin Nishikawa.



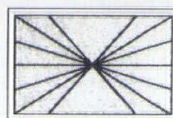
Alvin is Vice President of The American Coating Company. He is in charge of all field and estimating operations. Previously, Alvin was employed with an engineering firm in Chicago and Honolulu where he focused primarily on restoration and water infiltration problems. Alvin holds a M.S. and B.S. in Engineering from Purdue University.



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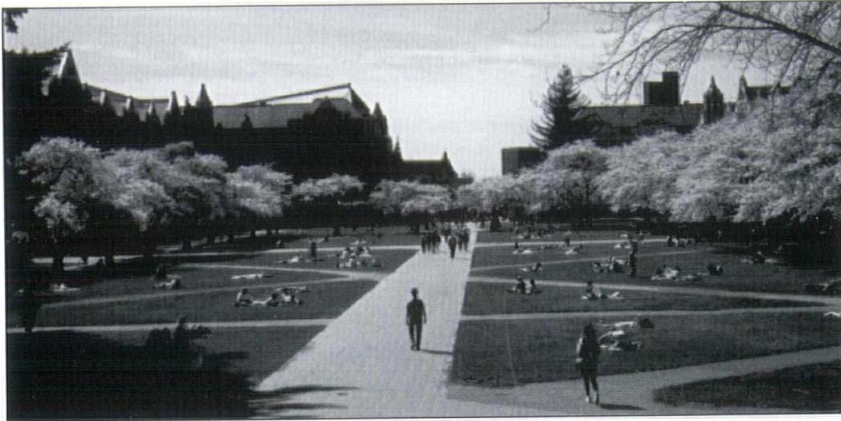
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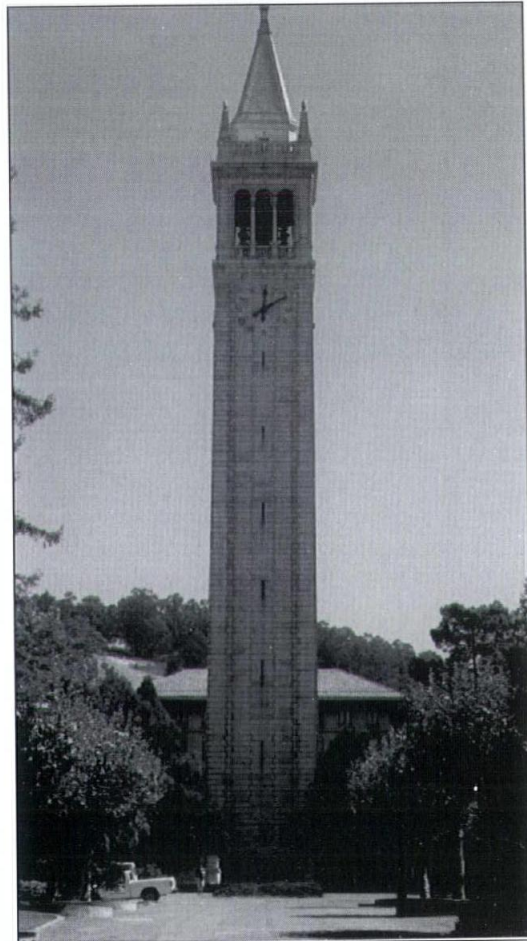
Creating an identity for educational institutions

A Sense of Place in Campus Design

by Grant Murakami, AICP



Cherry blossom trees in the quad on the University of Washington campus are an example of how landscaping can add character and enhance a space.



University of California-Berkeley's Sather Tower serves as a landmark which helps orientate students around the campus.



University of Washington's Red Square is a plaza providing an area for social interaction.

Creating a "sense of place" or "sense of identity" has become a major topic of discussion in the planning, architecture and landscape design fields.

Although much attention has focused on residential, commercial and resort properties, sense of place is also an important element in the design of our educational facilities. It is particularly important for larger institutions, such as high schools, colleges and universities, which are often self-contained communities catering to nearly all aspects of academic life.

As a survey conducted by the Carnegie Foundation for the advancement of teaching noted, 60 percent of college-bound students identified the visual environment as the most important factor in choosing a college. Thus, the design of a campus should go beyond providing basic classroom facilities to one which serves to create an aesthetically pleasing environment, encour-

ages opportunities for social interaction and fosters a sense of pride among both students and faculty.

This article presents some ideas on the key design elements which affect the form of a campus and how they can be organized to create a better sense of place and identity for a campus.

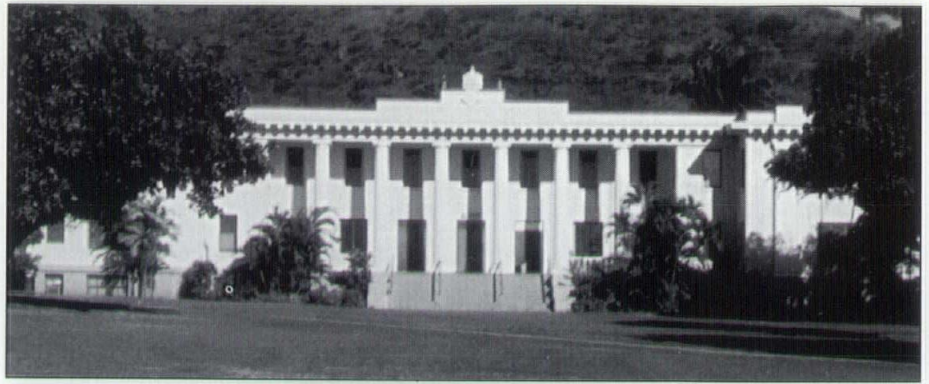
Interrelationships between key design elements

Establishing a sense of place for a campus should begin with a master-planned approach that recognizes the interrelationship between key design elements which shape a campus: circulation, open space, buildings, monuments, landscaping, entries and edges.

Each of these elements, and more importantly, their interrelationship with one another, is essential to the successful design of a campus. The key design elements are briefly described below.

Circulation

The circulation network on a campus, which includes pedestrian paths, roadways and bike paths, provides linkages which tie the key design elements of a campus together. The relationship of the circulation elements with one another



The quad at University of Hawaii at Manoa is an example of an informal courtyard space.

and to buildings and open spaces is critical to the successful development of a campus. These routes should be designed to minimize conflicts between pedestrians, vehicles and bicycles.

McCarthy Mall on the University of Hawaii at Manoa's campus is an example of a pedestrian path, separated from vehicular traffic, which provides a link between the school's open spaces and buildings.

Open spaces

Open spaces are important because they serve an aesthetic function as well as provide areas for social interaction.

Activity nodes such as plazas and courtyards serve as gathering areas on a campus. They provide a

"campus-like" setting for students to socialize, relax, eat and enjoy student life. These areas can be hard-scaped, "urban" spaces such as Red Square on the University of Washington's campus, or they can be informal courtyard spaces like the "quad" on the UH campus.

In addition, other smaller, informal open spaces can provide passive areas for resting and reading as well as provide a visual aesthetic function of green open space on the campus.

Buildings and monuments

Besides their internal function, buildings play a significant role in shaping the design of a campus. Their placement, form, architectural-style, color, height, bulk and size, set the tone or mood for the character of a campus and help define the "outdoor rooms" or open spaces on a campus.

When carefully designed and placed within the proper context of the campus environment, the influence of buildings extends beyond just a pretty facade to one that creates a sense of heritage and tradition on a campus.

The University of Colorado at Boulder, famous for its "Tuscan Vernacular style" of native sandstone walls and red-tile roofs, is a good example of how buildings can create a sense of place and tradition on a campus. On this particular campus, the use of native sandstone provides a sense of unity and cohesiveness despite the varying age, style and detailing of the buildings.



The rock wall of Punahou School typifies a hard-edge that clearly defines the boundaries of the campus.

Along with buildings, monuments, such as clock towers, campaniles, statues and fountains, enhance the aesthetic quality of the campus and often serve as landmarks or reference points.

The University of California at Berkeley's campanile, Sather Tower, is a good example of a monument that serves as a landmark that helps to orient students on the campus.

Landscaping

Landscaping can be used to enhance, define and/or create spaces. It can be used to make "walls" or edges that direct people through outdoor spaces by visually defining and reinforcing patterns of movement. Plantings can also be used to highlight the function of spaces or soften the impact of large buildings within the campus. Landscaping can define entries, usually with formal, uniform plantings, or create the ambiance of wilderness with scattered, informal plantings.

The cherry blossom trees in the University of Washington's quad is a clear illustration of how landscaping frames an open space. It adds an accent to the courtyard providing memorable images when in bloom.

Entries

Entries serve as the vehicular and pedestrian gateways into a campus. Because they are often the first impression one gets of the campus, they should be clearly defined with signs, accent planting, lighting and other street ornamentation.

The use of a hierarchical entry system can better highlight the campus' main entrances from the secondary ones.

The University of Washington Memorial Way entrance is an ex-

ample of a clearly defined entrance for both pedestrians and vehicles, while UC Berkeley's Sather Gate is a good example of a pedestrian entrance into a campus.

Edges

Edges are important because they help define a transition between the campus and surrounding uses. Like entries, edges are important as they often create a first impression of the campus.



McCarthy Mall on the Manoa campus provides a path for pedestrians linking buildings and open spaces.

Depending on the character of the adjacent uses and the surrounding context of a campus, edges can be either hard and well-defined, or soft and blend in with the surrounding environment.

Punahou School campus' rock wall fronting Wilder Avenue is an example of a hard edge, while the edge along Bancroft Way on the UC Berkeley campus is an example of a soft edge that bleeds into the adjacent community.

Tying the elements together

Although all campuses have these elements, they are often designed with little sensitivity to one another.

This results in a lack of cohesion within a campus, which is disruptive to creating a sense of place for

the campus. Instead, the key design elements should be organized to work in unison with one another, transforming spaces into special places.

McKinley High School's quad is a good example of how elements work together to create a special place.

Here, the relationship between buildings, open space and circulation is organized to work in unison. Together, these elements form a synergy that transforms the individual elements into a special place on the campus.

To create the type of interrelationship that is reflected by McKinley High School's quad, the key design elements can be arranged to create a clearly defined concept or vision for the campus. This is accomplished through organizing the key design elements to capitalize the use of hierarchy, continuity and variation.

Hierarchy is useful in establishing a sense of order among the

varying elements which comprise a campus. Hierarchy can be used to highlight major walkways, key entrances, major nodes and open spaces on a campus.

For example, the use of wider paths, special paving, accent planting, lighting and street furniture, helps establish a hierarchy which distinguishes the University of Pennsylvania's Locust Walk as a major pedestrian path from other minor walkways on the campus.

Continuity is important in promoting an overall sense of consistency on a campus. The consistent use of building heights, building materials, plants, signage, street furniture and paving can all serve to reinforce a sense of cohesiveness throughout the campus.

For example, the use of red roofs on the UH Hilo campus helps es-

establish a sense of design continuity.

Although it may sound like a contradiction, a campus needs some variation to keep it exciting and to avoid a sense of monotony or "drabness." Applying variation to key areas can provide finishing touches to the character of a campus.

For these specific areas, variation can be accomplished through the use of taller buildings and/or the use of different building materials for specific "landmark" buildings and monuments, such as the tower on Roosevelt High School's administration building. Also, the use of accent paving, different types of street furniture, flowering trees and accent vegetation can help highlight these special areas.

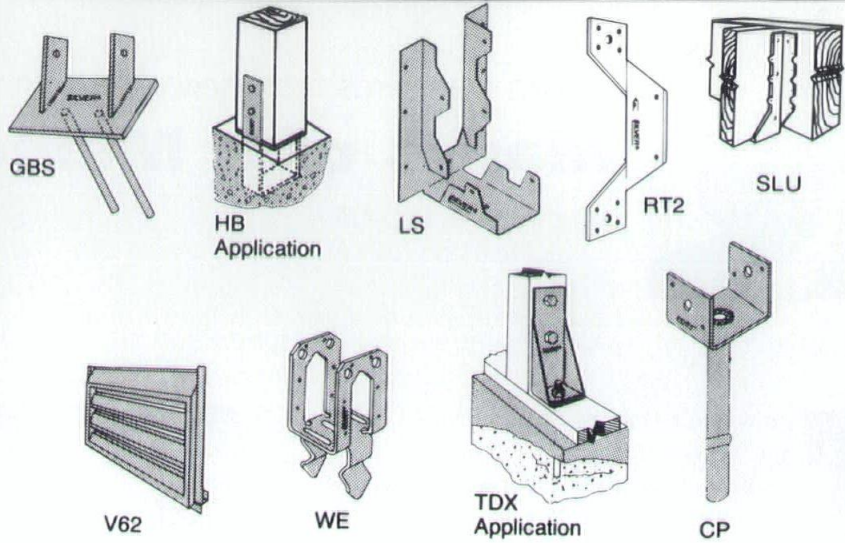
The ability of the designer to utilize hierarchy, continuity and variation in the arrangement of the design elements is critical to the successful design of a campus. Because of the importance of these interrelationships, campus design is often best accomplished through a collaborative approach involving planners, architects, landscape architects and engineers working with the university's faculty, staff and students.

Conclusion

Understanding and addressing the interrelationships between the various design elements is the first step to enhancing or developing a campus' sense of place. Utilizing these concepts in conjunction with development that is sensitive and responsive to the existing context of the surrounding man-made and natural landscape can result in a campus that has a unique sense of place and truly reflects the culture of its surrounding environment.

↔ *Grant Murakami, AICP, is a land planner/urban designer at PBR Hawaii. As a project planner, Murakami has been involved in the preparation of master plans and related studies for University of Hawaii-Hilo, UH-West Oahu, Hawaii Community College and Kamehameha Schools' Kapalama campus.*

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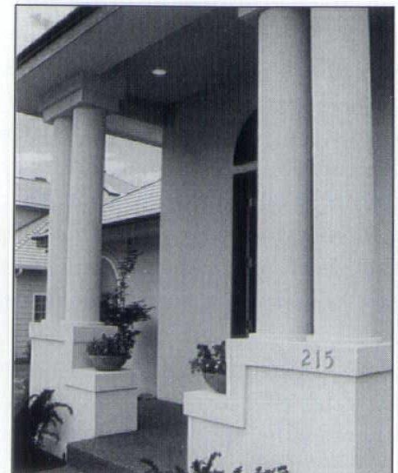
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Design standards foster excellence in planning

Marks of a Memorable City

by Benjamin B. Lee, AIA

The world's best, most memorable cities are known for their distinctive landmarks, great public spaces and timeless architecture. The Eiffel Tower in Paris, Piazza San Marco in Venice, Italy, Ponte Vecchio in Florence, Italy, Golden Gate Bridge in San Francisco, Guggenheim Museum in New York and our own Honolulu Academy of Arts all come to mind.

Historically, the design of public spaces and structures has been the means of expressing a city's traditions, special character, history and daily life.

Today architects, planners and engineers are challenged to provide quality, distinctive designs despite being constrained by increasing labor and material costs and an ever-shrinking capital improvement budget by government agencies.

Yet I have never seen my colleagues fail to meet this challenge. In fact, the more difficult the challenge, the more they rise to the occasion with creative, award-winning designs.

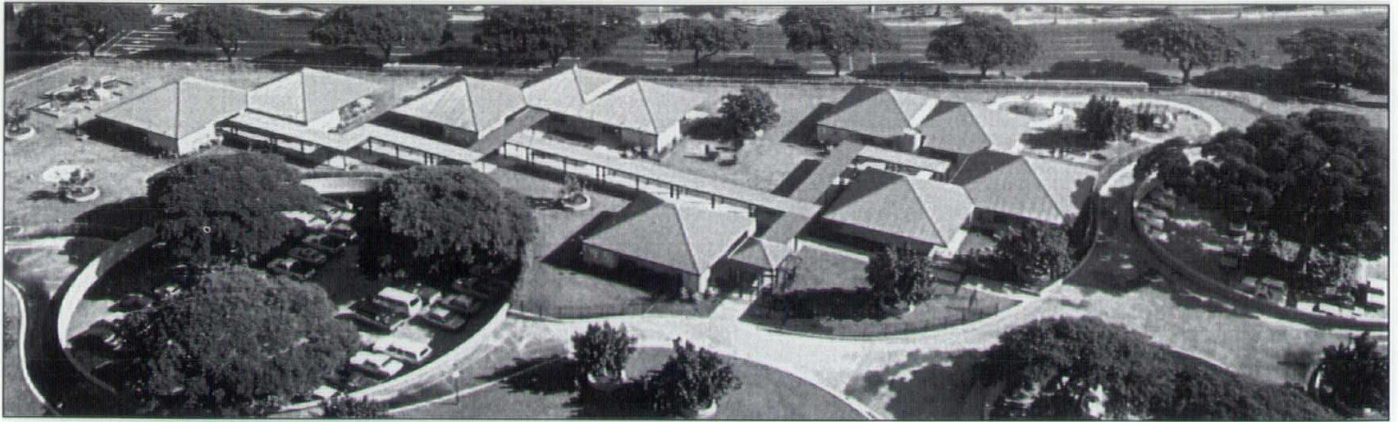
Public structures shape our city's image and foster civic pride. In the past, the traditional approach was to locate public open spaces and structures as focal points and at the terminus of streets and corridors, for example a church, grand public park or town square. This provides a sense of importance and identity of place. Often these public buildings become the readily identifiable and timeless "icons" for the city.

Over the past 10 years, numerous award-winning city projects in Honolulu have transformed the appearance and livability of our communities, restoring our sense of civic pride.

Our quest for design excellence in the community continues, but not just in the design of public spaces and structures. Public architects and planners can and should have a ma-



Chinatown Gateway with Chinese lion sculptures and lush landscaping provides a striking public plaza.



The first city-built child care center above the Honolulu Municipal Building parking garage at Beretania and Alapai streets is a neat complex of buildings scaled for small children.

major influence on the future designs of our neighborhoods.

In February, Mayor Jeremy Harris and several of his cabinet members met with Andres Duany, noted architect/planner of several new residential communities on the mainland including Seaside, Walton County, Fla.; Windsor, Vero Beach, Fla.; Kentlands, Gaithersburg, Md.; and Mashpee Commons, Mass.

Duany's approach to traditional neighborhood design is refreshing and his presentation quite convincing, especially when compared to what we typically see in subdivision layouts — an endless maze of cul-de-sac streets, which frustrate guests and confuse fire and ambulance emergency services.

The return to a grid street pattern, with smaller blocks and narrow, tree-lined streets that are pedestrian-friendly and a mix of land uses and housing types are elements of this new, yet traditional, site planning and design approach.

Duany's visit to Honolulu was timely, because our city team of architects and planners are ready to embark on establishing Traditional Neighborhood Design standards. These standards will encourage developers and landowners to use a "traditional," and what I believe to be a more sensible, approach in the design of residential communities.

Good design in our built environment is what shapes the quality of our lives, our perceptions of who we are and what our city is really about. How do we continue to foster

and promote design excellence?

- City architects and planners need to reach out to design professionals and the larger community in collaborative efforts to raise design standards for our public spaces and structures.

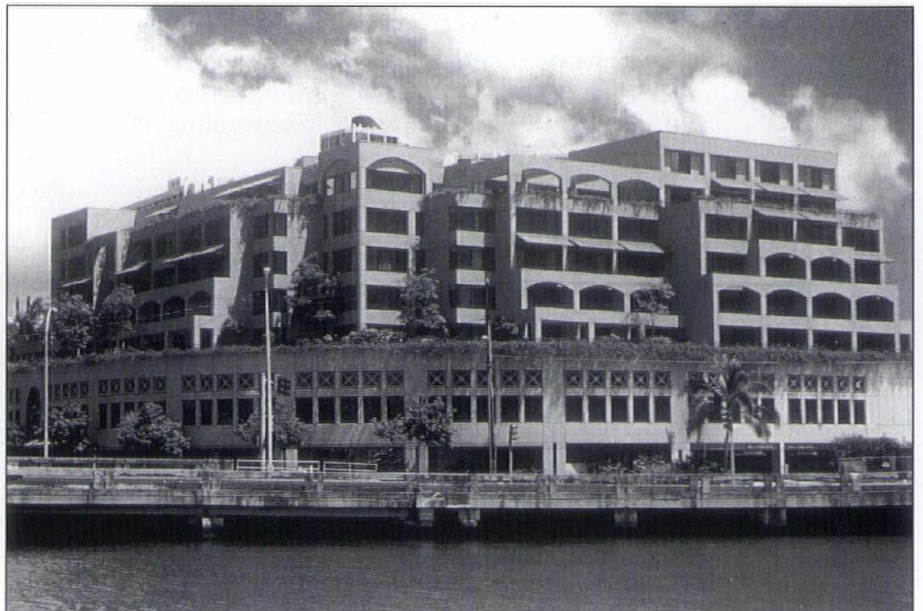
- All planners and architects have a responsibility to foster an understanding of how good design positively affects the lifestyles of our community and how the loss of character, historic presence and unique identity can be reversed by relatively simple design solutions which improve appearance, renew vitality and restore pride in the past.

- We must also acknowledge that while cost is a concern, good design need not be at great expense.

It can and has been achieved by focusing on quality and attention to detail. More importantly, the short-term financial costs of good design must be weighed against the less tangible, long-term benefits to our citizens.

Honolulu is fortunate in having many examples of public projects built with superior design quality and a studied respect for the character of the city. Design excellence in public buildings and spaces not only contributes lasting values to the city, but it establishes high standards for the developments which follow.

♦♦ Benjamin B. Lee, AIA, is deputy managing director of the City and County of Honolulu.

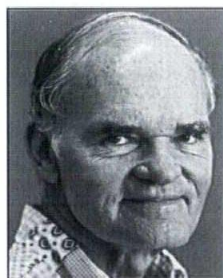


Harbor Village displays a village character with a composition of terraced building forms and arched lanais.

A firsthand look at the design of the state Capitol

Capitol Idea

by Frank S. Haines, FAIA



Robert R. Midkiff



George "Scotty"
Koga

Hawaii's state Capitol has received recognition from various sources for many years, culminating in the AIA Honolulu 25-Year Award last year.

The design implications of the building we pass by and visit so often have been well documented. What we enjoy today, however, didn't come into being without considerable effort on the part of many who have not been adequately recognized by the public and the profession.

This article, written by one who was present and involved when it all happened, will attempt to document the significant events leading up to the Capitol's completion and occupancy in 1968. The decisions on the location, architect selection, design evaluation and approval, funding and construction will also be discussed.

The community and the profession are indebted to two civic leaders, who successfully led the 10-year process of constructing the Capitol.

Robert R. Midkiff, a kamaaina whose missionary great-great-grandfather arrived here in 1837, has spent a lifetime dedicated to business leadership and community service. He recently retired from American Trust Co., which he founded and then guided until its sale last year.

George "Scotty" Koga has dedicated his life to public service. He spent five years in the territorial and state Legislatures, followed by 14 years on the City Council.

The story begins more than two years before the U.S. Congress voted to make Hawaii the 50th state. The 1957 territorial Legislature, meeting in a badly design-corrupted

Iolani Palace, mandated the Planning Office to prepare a study of prospective locations for a new Capitol. Frank E. Midkiff, chairman of the Bishop Estate trustees, headed a citizens' committee which considered and evaluated 11 specific sites.

A series of criteria was used, including vehicular and pedestrian accessibility, general prominence, economic and cultural effect, compatibility of land use and other significant factors. The committee's deliberations narrowed the list to three.

Harold Castle had offered 100 acres at the current Hawaii Loa campus of Hawaii Pacific University. He wanted to encourage development of the adjacent Castle Estate properties. The Civic Center, the ultimate location, came in second place behind Fort Armstrong in the recommendation to the Legislature in February 1959. The published report included a "suggested Capitol site plan" and a high-rise building on the waterfront.

Bob Midkiff, Frank's son, was active in the Downtown Improvement Association, whose business community members favored the Civic Center site. Although this was the era of the satellite capitols of Brasilia, Brazil, and Canberra, Australia, it was realized that the revitalization of downtown Honolulu required the continued presence of the state and city decision-making centers. The Legislature agreed and the exciting process of building a Capitol to express the newest state began.

Gov. William Quinn subsequently appointed Bob Midkiff chairman of a committee to select the project's architect. This outstanding group included legislators from both

political parties and from the neighbor islands, executives of the governor's office, city officials, concerned citizens and even a federal government representative.

Some of the advisory committee members, such as George Ariyoshi, became major community leaders. I particularly remember the outspoken participation in the meetings of Mrs. Parker (Sis) Widemann, who represented the Hawaii Civic Club.

The basic architect selection guidelines encouraged applications from anywhere in the world, but wisely required that local architects and engineers familiar with Hawaii's climate and culture be included on the team applying.

Twenty-eight out of the 39 groups expressing interest were personally interviewed by the committee. Prominent architects of that time, such as Edward D. Stone, Minoru Yamasaki and others of equal prestige, applied for the commission. John Carl Warnecke, FAIA, and Belt, Lemmon and Lo (an association of architects and engineers, of which Architects Hawaii Ltd. is the successor architectural firm) were selected.

Bob Midkiff said what swayed him in favor of the Warnecke/Belt, Lemmon and Lo team was the comparison between Warnecke's design for the U.S. Embassy in Bangkok, Thailand, proudly placed in a reflecting pool, and the latest project of the other final competitor, the new Honolulu airport administrative high-rise offices.

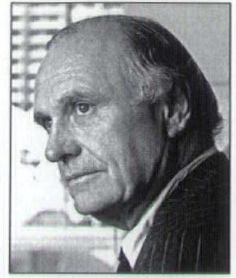
Cyril W. Lemmon, FAIA, who held the title of "architect in charge," was directly responsible for coordinating the many facets of the effort put forth by all of the large team's architect and engineer members.

The architect selection committee had made it quite clear that the design decisions would be a joint responsibility of the designers and the advisory committee. It was therefore appropriate that an initial educational step consist of visits to other state capitols. Koga, who became co-chairman of the architects advisory committee, headed this trip, which included Lemmon, Leo C. Pritchard, administrative director of the governor's office, and Rep. William Bains-Jordan.

The capitols of Nebraska, North Carolina, Arizona and Georgia were among those examined. Many of the lessons learned on the trip significantly influenced the project design, such as public access to the legislative process, interior flexibility and the need for adequate parking.

As we started work in earnest, a central office for the project was set up adjacent to Lemmon, Freeth, Haines and Jones' office on Kapiolani Boulevard. It was later moved to the 15th floor of the recently completed, and more recently demolished, First Hawaiian Bank building downtown.

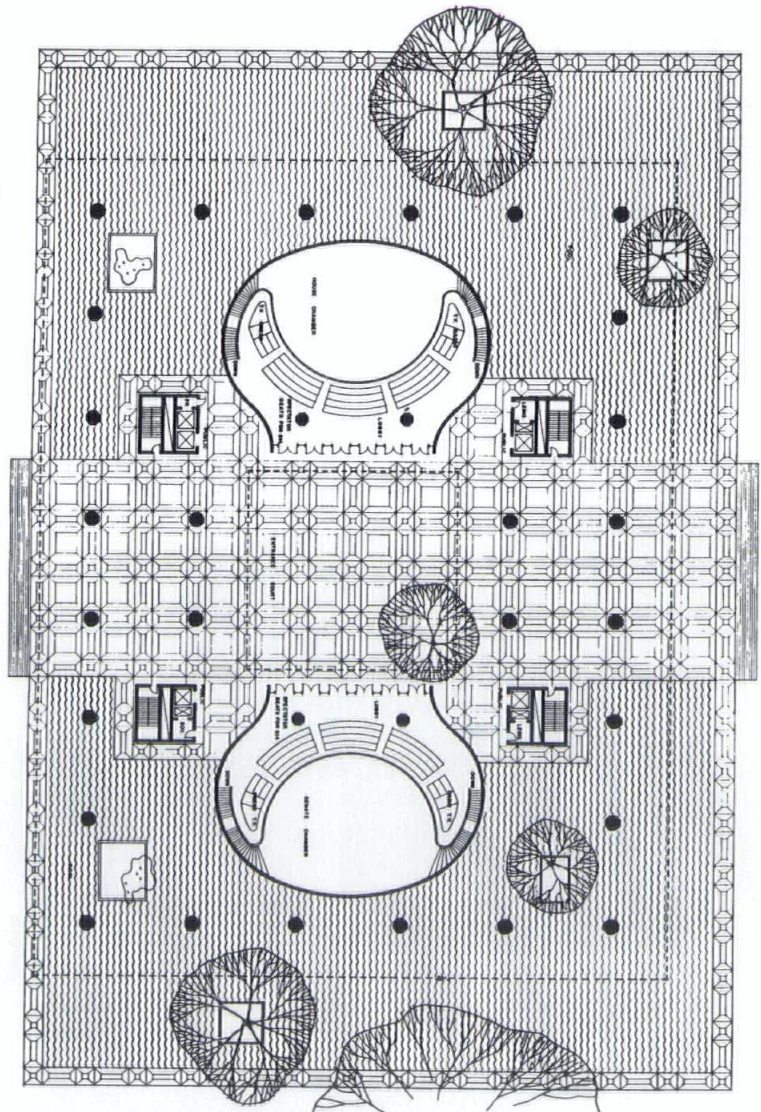
Interviews with the agencies and departments which would occupy the building culminated in a typical program of spaces and a total building area of 450,000 square feet. Meanwhile Warnecke sent Lun Chan and Morton Rader, top designers from his San Francisco office, to lead the creative design process that would culminate in the unique and imaginative building we've enjoyed for the last 25 years. The final scheme was actually the 13th presented to the hardworking advisory committee, which eventually consumed more than 3,000 volunteer hours.



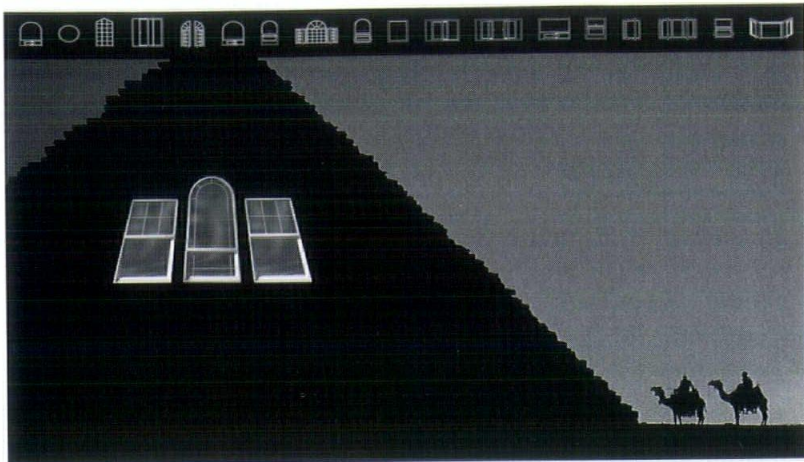
John Carl Warnecke, FAIA



Cyril W. Lemmon, FAIA



The suggested Capitol site plan illustrated in a 1959 recommendation to the Legislature.



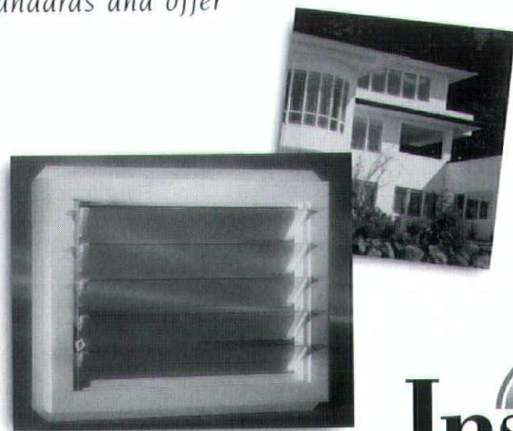
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The design approach considered three basic elements which were kept in harmony, for example, the palace, Capitol and huge banyan tree between them. High-rise schemes were suitably rejected because they would overshadow and dominate the other components. There was also what we called "heiau" design, which consisted of a rock-covered mass at ground level containing the office space with the legislative chambers on top, reminiscent of the worship structures on early Hawaiian heiaus.

We also solicited critiques of our progress from a distinguished panel of architects. This group included Pietro Beluschi, FAIA, dean of the Massachusetts Institute of Technology's School of Architecture, George J. "Pete" Wimberly, FAIA, of Honolulu, and Leonard Hunter, AIA, head of the General Services Administration Public Buildings Service from Washington, D.C.

Their final report included such laudatory statements as the design's "dignity and poetry without ostentation" and endorsed the functionality, scale and visual image of a building symbolic of Hawaii. This distinguished group also recommended a State Capital Commission and the preparation of a Civic Center master plan, both of which were subsequently implemented.

The symbolism of the design elements, for example, columns resembling palm trees, surrounding pool representing our island state and legislative chambers recalling our island-forming volcanoes, has been well-documented, but some of the major background of the design has not.

It was the collaboration of the design team and advisory committee that produced the concept, unique for state capitols, of a circulation system with only a single access for legislators from their personal offices to the meeting chambers. There are no back corridors where they can escape from their concerned and often irate constituents. Similarly, the main rotunda, with

its view of the Senate and House of Representatives meeting rooms, facilitates public monitoring of the law-making process and provides an adequately large space for major public demonstrations.

The brochure delineating the preliminary design, which was virtually the same as finally built, was completed in March 1961. It listed a cost estimate of \$14.5 million and recommended a time schedule with completion in February 1965. This ambitious schedule included the required realignment of Beretania Street and the relocation of Iolani Barracks.

Events did not proceed as fast as anticipated, although the pressure was on, since statehood had become a reality in August 1959. We were not authorized to start the working drawings until after John A. Burns had become governor in the 1962 election. Charles R. "Ty" Sutton, FAIA, arrived late that year to represent Warnecke and stayed on to become a leader in the local profession. The final construction documents were completed in 1964, but not until after the famous "raising the roof" episode.

After President John F. Kennedy's assassination, Jackie Kennedy and her children came to Honolulu to recuperate, which had been recommended by her close friend, Warnecke.

Bob Midkiff recalls that it was Mrs. Kennedy who told Burns that the executive top level of the building as designed would have a less than monumental ceiling height. The drawings were subsequently revised to raise it several feet, at an additional cost of \$700,000.

Delays in legislative appropriations and some problems during the competitive bidding period meant that Reed and Martin didn't start construction of the Capitol until early in 1966. Our saga ends with the dedication and occupation two years later.

↔ Frank S. Haines, FAIA, is chairman of Architects Hawaii Ltd.

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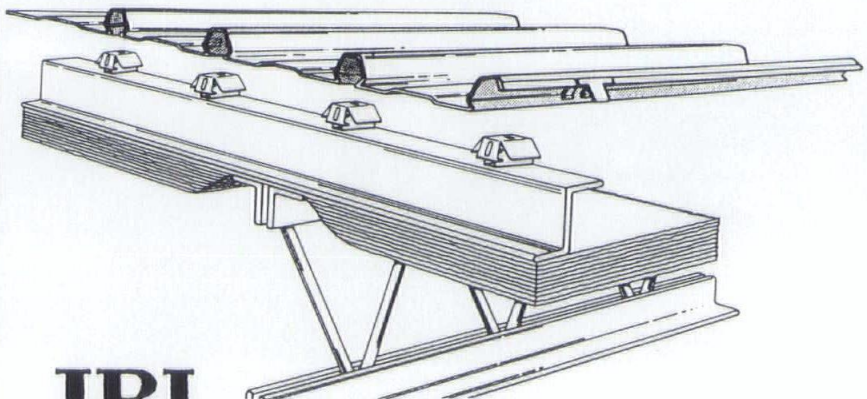
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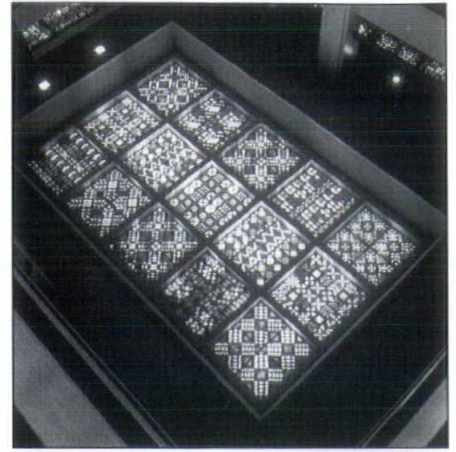
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Foundation works to keep art open to all

The Art of Preservation

by Kimi Sakuda



"Kapa Lele O Hawaii" by Erica Karawina graces the Ka'ahumau Hale Interior Court. Photo by Douglas Peebles

Donald Harvey's "Ka Ho'oilina Mau Loa" by the Ke'elikolani Building was completed in 1994.

Photo by Douglas Peebles

Hawaii is fortunate to have a rich culture and art tradition. The perseverance of culture and art can be attributed to the establishment of the State Foundation on Culture and the Arts and the "One Percent for State Buildings" law, which sets aside 1 percent of all state construction fees for commission, exhibition, conservation and purchase of public art.

To many, dedicating state money to art ap-

pears frivolous, especially when hard earned taxes metamorphose into orange, tin monstrosities. However, investing taxes in art is important for our community and lifestyle.

Established in 1965 by architect Alfred Preis, the foundation is known for its Arts in Public Places Program. A highly visible program, Arts in Public Places installs site specific, permanent pieces throughout the state and purchases relocatable or traveling artworks. What is not commonly known is that

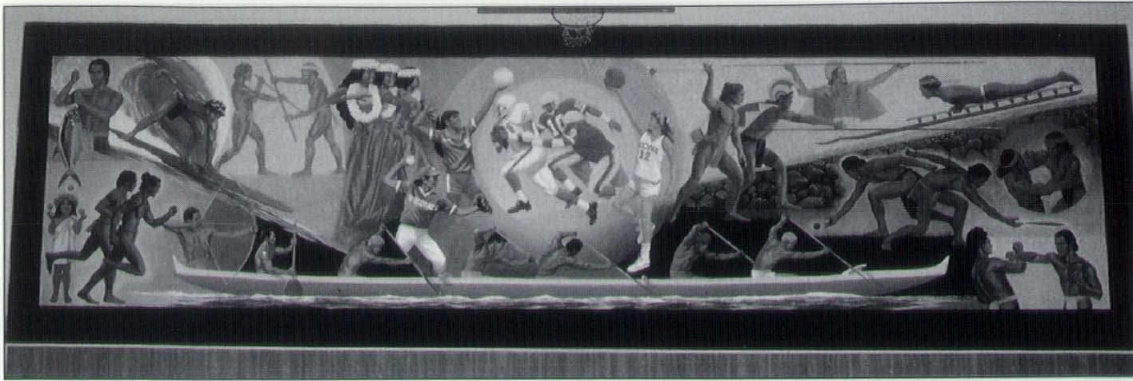
the foundation also supports hundreds of smaller programs.

Preis chartered the foundation to ensure the flourishing of art and culture throughout the community, work to preserve traditional art forms and spread the importance and meaning of art to all, not only a select elite.

Today, this foundation gives life to vital programs like the Folk Arts and Artists-in-the-Schools programs. The Folk Arts Program awards scholarships to individuals wishing to study with living "treasures" in a traditional art form like lauhala weaving or Laotian wood-carving. Artists-in-the-Schools introduces art workshops to school children in underprivileged communities.

The foundation also





Herb Kawainui Kane's "Traditional Motion Arts of Kona" brightens Konawaena High School Gymnasium.
Photo by Lee Allan Thomas

aids fellowship and grant programs which fund multitudes of worthy artistic and cultural causes. The effects of the foundation permeate the community more than people first realized.

In 1967, Preis helped implement the One Percent for State Buildings law. Since then, 29 other states have followed suit. Although Preis advocated a community enveloped by natural beauty and enhanced by public art, he was not so quixotic as to believe that surrounding a community with artwork would automatically bring about Eden.

Preis instead believed that introducing and placing art in the public arena, taking it out of its private, exclusionary cove, would heighten the public's acceptance and appreciation of art and perhaps bring about a higher level of humanity and community. Today, it seems to have come true.

Art consultant Greg Northrop, a member of the art advisory committee for the new convention center, said that the public's awareness of art in public places has definitely been heightened. In a public space, "art serves as a link between the structure and the people." Art humanizes a cold, concrete building and people can be seen interacting with the sculptures, he said. Northrop added that he noticed the private and public sectors are realizing a need for public art and are incorporating means for it.

John Hara, principal of

his own architecture firm and chairman of the State Foundation on Culture and the Arts board, also agrees that the public's consciousness of art is on the rise. As an architect, Hara understands the integral relationship between art, humans and space and the impact a piece of artwork can make. The Maui Arts Center serves as a particular example to this.

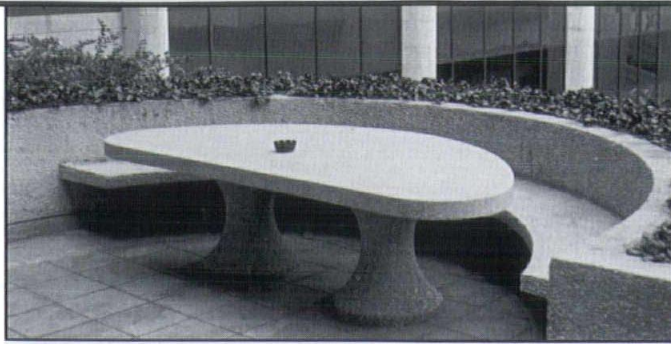
At the center, a string of oil paintings of actual Mauians lines a wall. Hara said he remembers a tough-looking biker-guy "standing in front of a painting of himself" in disbelief and awe. In a moment, the melding of art with humans highlights the importance and significance of art in public places.

The grounds of Hawaii State Hospital is home to Sean K.L. Browne's terrazzo sculpture "Lima Ho'ola."
Photo by Douglas Peebles



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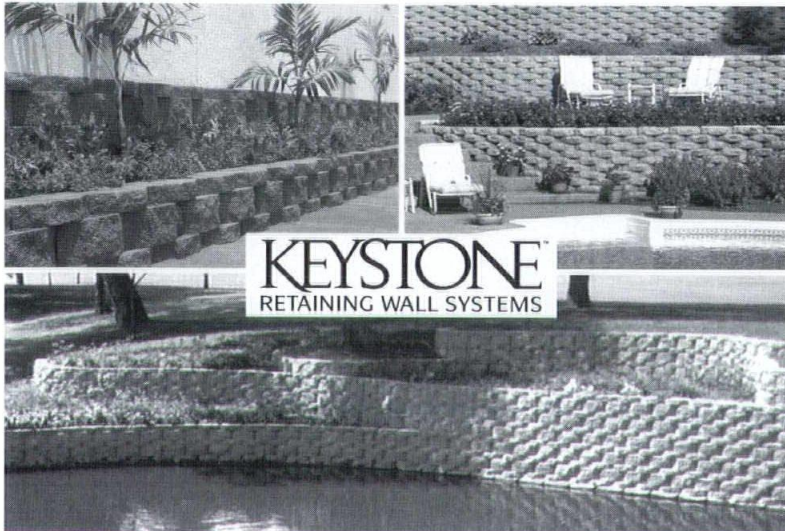
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"Art (in Hawaii) is a sign of who we are and where our priorities are," said Wendell Silva, executive director of the foundation. This is the most compelling argument for Art in Public Places, the 1 percent law and the foundation, Silva explained.

Hawaii's penchant for culture and the arts developed centuries ago with the indigenous Hawaiian culture and subsequent "haole" immigrant cultures to create a multicultural community found nowhere else in the world. The special blend of ethnic art and cultural mixing, along with picturesque valleys naturally made Hawaii the quintessential vacation spot.

Recently however, Hawaii has relied solely on the beauty of its beaches to carry the economy and has forgotten the "other" tourist attractions. Until Hawaii disregards the tacky "Sun Yo' Buns" postcards and mass-produced, flammable hula skirts for multiculturalism, which initially attracted tourists, it is slated to be a victim.

Hawaii survives on an economy driven by tourism as opposed to an economy which commands tourists. The '60s landmark legislation ensured Hawaii's commitment to culture and the arts as a "museum without walls." Since then, Hawaii's continued commitment has proven that the state is not just a vacation spot, but an arts and culture force to be contended with.

Of course, art is not the cure-all solution; but perhaps by re-establishing its lost tradition of rich culture and re-affirming its presence as an art leader, Hawaii can integrate an urban environment with art and culture and prove to be a sophisticated, cosmopolitan, culturally diverse center.

♦♦ *Kimi Sakuda is a junior designer with Ferraro Choi & Associates Ltd. Special thanks to Holly Richards, producer of Spectrum Hawaii's "Art in Public Places: Hawaii's State Foundation on Culture and the Arts."*

Architectural Depth can Improve Health

According to a new study that looks at the effects of household crowding on people's well-being, architecture can make all the difference.

The study, in the January issue of the American Psychological Association's *Journal of Personality and Social Psychology*, found that residents living in crowded homes with greater architectural depth — the number of spaces one must pass through to get from one room in the house to another — are less likely to avoid social interaction or to suffer from nervousness, anxiety or depression than those living in crowded homes with less space between rooms.

Future designs that include architectural depth, along with room brightness, subunit size and a degree of private enclosure may help improve people's reactions to limited space and their responses to crowding. "Maintaining one's privacy can be achieved through a combination of psychological and environmental coping processes," concluded the authors.

Roach-Laing to Chair BIA Hawaii Renaissance

The Building Industry Association of Hawaii recently announced the appointment of Leslie Roach-Laing, president of LRL Designs Inc., as chairperson of the 11th annual BIA Hawaii Renaissance. Roach-Laing, an associate member of the American Institute of Architects, Honolulu Chapter, has served on the Renaissance Steering Committee for the past three years.

The annual statewide remodeling competition, presented by the Hawaii Remodelers Council, is sponsored by BIA, GE Capital Hawaii and *Honolulu Magazine*. This event recognizes excellence in design and construction of residential and commercial remodeling

projects in Hawaii.

Projects completed after Jan. 1, 1995 are eligible for this year's competition, with the exception of landscaping entries, which must have been completed subsequent to Jan. 1, 1993.

The deadline for submitting entry applications is May 31. Completed entry binders must be submitted by June 14. Winners will be announced at the awards banquet Aug. 27.

To obtain entry applications, contact Kim Mitsunaga at BIA, 847-4666, Ext. 204.

1996 Engineering Competition Winners Announced

The Consulting Engineers Council of Hawaii recently presented its 1996 engineering excellence awards during its annual banquet at the Hawaii Prince Hotel.

Rick Moss, awards chairman and past president, presented the highest prize, the Grand Conceptor Award, to Belt Collins Hawaii for its design of an auxiliary waste-water treatment facility on Lanai.

This facility provides additional treatment to effluent from the existing Lanai City Wastewater Reclamation Facility.

Excellence Awards were presented to:

- Austin Tsutumi & Associates Inc. for the planning, design and construction management of Mahinahina Water Treatment Facility in West Maui
- Leo A. Daly for its structural engineering design on the Japan National Telescope, also known as Subaru, the largest single-mirror optical-infrared telescope in the world
- SSFM Engineers Inc. for the process utilized to correct the corrosion problem at Aloha Stadium
- Cedric D.O. Chong & Associates

for the Chiller Plant Modernization, Tripler Army Medical Center.

Five Honor Awards were given to the following firms:

- M&E Pacific Inc. for the Hawaii State Veterans Cemetery
- Ferris & Hamig Hawaii Inc. for its state-of-the-art air-conditioning system for Hawaii Film Studio's new sound stage
- CH2M Hill for its development (within six months) of two modules for the City and County of Honolulu
- CW Associates dba Geolabs-Hawaii for the University of Hawaii-Manoa's faculty housing
- Towill Corp. for the Ewa Villages Revitalization Projects.

NAHB Introduces Internet Web Site

Surfers of the Internet: The National Association of Home Builders has set up a home page at <http://www.nahb.com>.

This home page contains detailed information about the home buying process, remodeling and home financing. The site provides a mortgage calculator that helps people determine how much they can afford to pay for a new home and how much their monthly payments would be.

The home page also includes useful statistical information such as the Housing Opportunity Index, NAHB's market-by-market analysis of housing affordability throughout the nation; historical information about housing starts, sales and mortgage interest rates; and "The State of the Nation's Housing 1995," a detailed analysis by the Joint Center for Housing Studies of Harvard University.

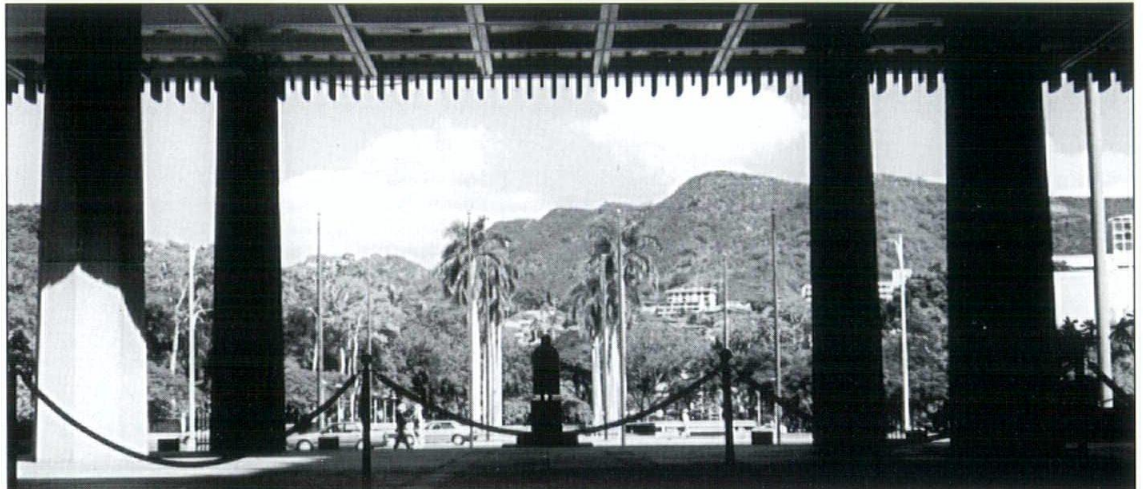
Information about building technology and a wide range of building products is also provided on the Internet by the NAHB Research Center.

Enhancing the environment with public spaces

Impact on the City

by Charles R. Sutton, FAIA

The unobstructed view of the mountains from the Hawaii state Capitol is part of the master plan developed for the Capitol district.



In his book, "Design of Cities," Ed Bacon describes the ingredients of architectural design as mass and space; the mass created by architectural form which also creates both internal and external space.

The awareness or perception of this space is the opportunity for the user to gain a sense of connection to the place and a deeper aesthetic satisfaction, that is, of course, if the design of the form and space has reached its highest expression of architecture.

Public space in cities starts with designa-

tion of streets, public rights of way, parks and space for various essential utilities. As cities have grown, these spaces have been enhanced by the design of sidewalks, plazas for gatherings of people and monumental spaces of special recognition.

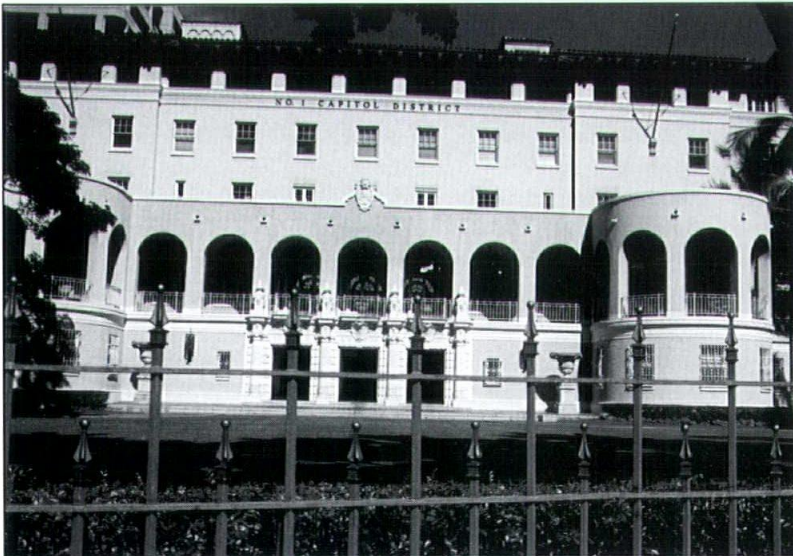
In recent years there has been a greater recognition of the need for quality space in the city, both for commercial reasons and because people realize that by their participation they can affect the design of their urban environment.

The result of this greater awareness has brought about the building of new urban places, plazas, squares, malls, courtyards, pedestrian walks and parks.

In downtown Honolulu, Bishop Square, Fort Street Mall, Financial Plaza, Grosvenor Center, Harbor Court, Aloha Tower Plaza and Hotel Street Bus Mall are major improvements in the downtown environment. These places have not only made working in downtown more pleasant but have brought in better shops, restaurants and offices. They have also helped bring apartments back to encourage downtown living.

The new open space created by these projects include both public and private land. Most of the improved public sidewalks and

The use of space is illustrated at Iolani Palace.



streets have been part of private adjacent developments that brought the entire area up to a new standard.

Hotel Street and Fort Street Mall are examples of a public right of way improvement that has influenced commercial upgrading of the facing properties.

In the Capitol district, the 30-year-old master-plan concept, "A Great Park from the Mountains to the Sea," has guided many projects of the state and city to create an area of well-landscaped open space, closed some streets and improved others to gain better movement of both pedestrians and automobiles. The concept has also given a strong identity to the center of government.

Mall spaces in the Capitol district vary greatly from the commercial malls as open park-like walkways to shop-lined sidewalks, with

each contributing to the quality of urban life. One offers beautiful, serene, relaxing spaces with interesting landmarks between public buildings, while the other offers



Urban areas are enhanced with public rights of way like Mililani Mall downtown.

shopping convenience, entertainment and a more intense interaction between people.

Interior courtyards, such as in the Capitol, City Hall and the old federal building, engage people in

the space and form of the building as they move from outside public space to semipublic space inside.

The merger of privately developed public or semipublic open space with improved public rights of way has given new dimension to architecture and brought significant physical improvements to the city.

The practice of "urban design" has bridged the gulf between architecture, the design of buildings and traditional city planning, planning at the macro scale and addressed the more intimate or human scale relationship of people to the city. Its impact on the city has been to make a more livable

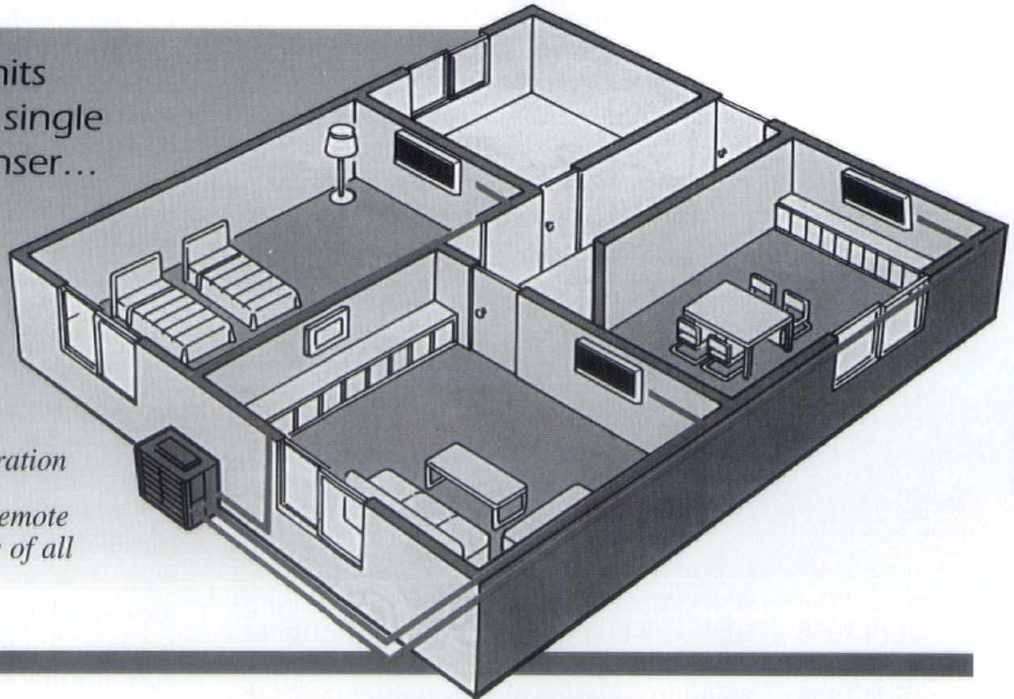
environment, improved business opportunities and a better quality of life.

♦ Charles R. Sutton, FAIA, is the authority engineer for the Convention Center Authority.

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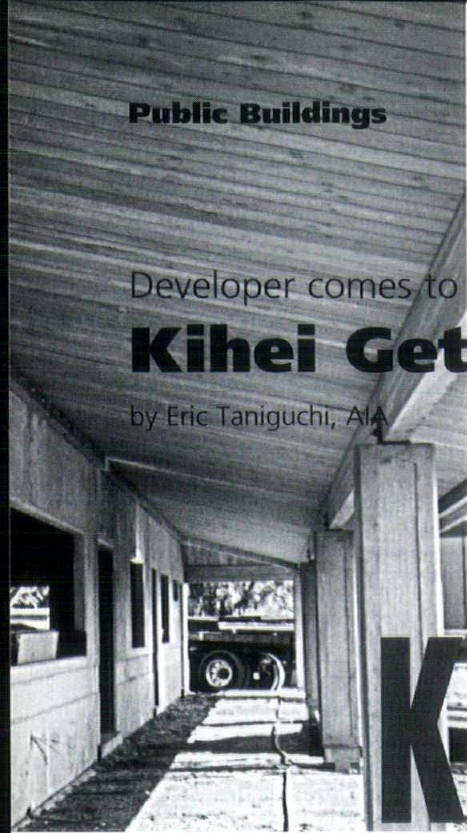
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Developer comes to community's aid in model project

Kihei Gets a New School

by Eric Taniguchi, AIA



Kihei's population has tripled in the past 10 years, burdening its infrastructure to the limits. New state roadways and conscientious commitments by Maui County officials have yet to keep pace with this exciting area.

With this growth, the southwest Maui community has seen its student population double, creating a need for a new elementary school. The existing Kihei Elementary School is bursting with new children.

The Kihei community, through association meetings, voiced its support for a new school. Both state and county officials responded in favor of the school.

But where would this school be located? How long would it take to build? How quickly could funds be made available for the school? Could private development assist?

Maui developer Everett Dowling saw an

The school
cafetorium takes
shape.



The work diligently continues on the classroom building of the new Kihei school.

opportunity to assist the community and state by building this school. After negotiations, meetings and public hearings with community, county and state officials, Dowling responded by offering land and management services for the school's development.

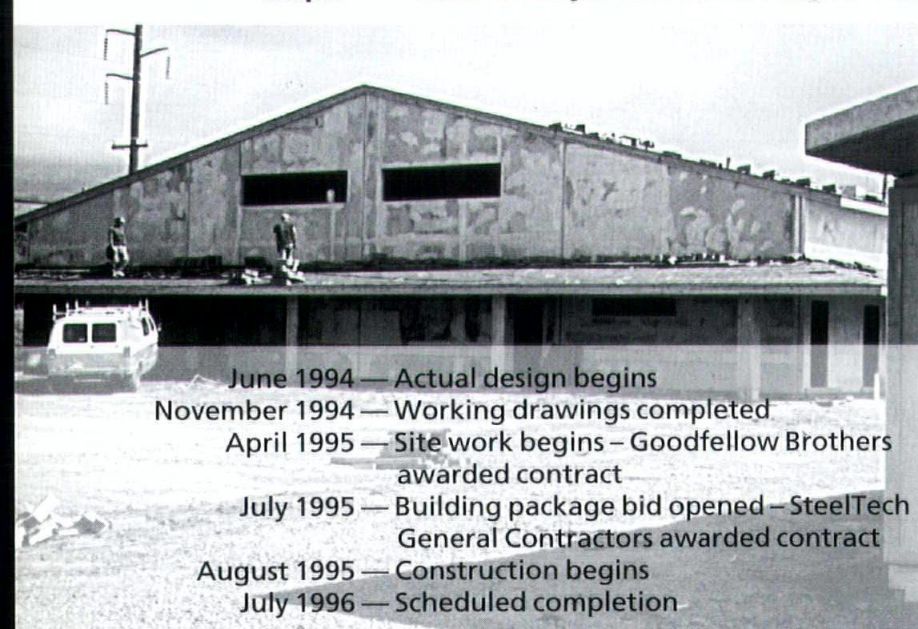
Both the governor and mayor supported this effort and gave their approval.

With the support needed, Dowling put together the project team, which included the design consultants, members of the Department of Education facilities branch and a general contractor, who would assist in the cost evaluation and value engineering, unheard of with typical state procurement contract and bid policies.

Though the design team followed Department of Accounting and General Services policies and procedures in developing the contract documents, this was a "private" project and certain limitations which would have been placed upon the team were lifted.

The review process included one-day meetings during the various stages of the design with DOE facilities officials and the newly formed Kihei School Task Force, comprised of teachers, Maui district DOE officials and parents of Kihei students.

These meetings allowed the design consultants to immediately answer questions from officials and task force members, allowing the project to move steadily forward.

- 
- June 1994 — Actual design begins
 - November 1994 — Working drawings completed
 - April 1995 — Site work begins — Goodfellow Brothers awarded contract
 - July 1995 — Building package bid opened — SteelTech General Contractors awarded contract
 - August 1995 — Construction begins
 - July 1996 — Scheduled completion

The on-board general contractor acted as a "watch dog" to keep the project within budget and made recommendations for more efficient methods of construction.

In the conceptual design phase, it was decided by the developer, contractor and design consultants that concrete tilt-up construction would be used. This method of construction requires a certain dimensional module and a high degree of coordination between the various trades and specialties.

Because of the school's location, all-year schedule and a parent/teacher organization's request, the DOE approved the use of air conditioning throughout the entire facility, excluding the cafetorium.

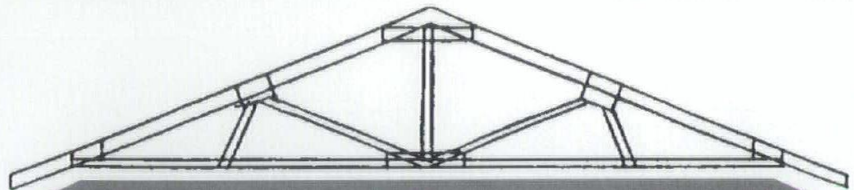
The completed school will consist of six buildings which will house 36 classrooms, teacher stations, faculty centers, a library, computer resource center, cafetorium and administration offices. The entire campus is situated on 12 acres and includes a multipurpose playfield, outdoor basketball/play court and playground area.

The design of the school followed current DOE specifications and incorporated new concepts from DOE facilities branch officials. The developer requested the contractor make a list of value engineering recommendations prior to the signing of the contract.

After review and approval of those recommendations by DOE, the design consultants and developer, the contract was awarded and construction began in August 1995. The project is scheduled to be completed by July 1996. After its completion the school will be officially turned over to the state.

Through the concerted efforts of the state, county and community organizations and private enterprise, this new school is becoming a reality. The school was recently named Kamali'i Elementary School, meaning royal children; how befitting.

↔ Eric Taniguchi, AIA, an associate with GYA Architects Inc., is the project architect for the new Kamali'i Elementary School.



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Keeping Civil Defense shelters up to par

Weathering the Storms

by Norman Ishikawa

Should another powerful hurricane or tropical cyclone approach our islands, residents may have to decide whether to ride out the storm in their homes or go to a public emergency shelter.

Public sheltering in Hawaii is available through the Department of Education schools, county recreation facilities and private nonprofit facilities.

Prior to 1992, residents did not give much thought to this danger because their experiences with tropical systems were limited to those that brushed, rather than directly impacted our shores.

After Hurricane Iniki, however, the decision to stay put might depend on whether a home has a concrete roof, reinforced concrete walls and foundation or has a continuous load path that ties roof, walls and foundation together; door and window openings that are covered with debris-inhibiting covers or windows with debris-resistant glazing; and, of course, whether or not the building is in a known flooding or inundation area. For homeowners that lack these optimal structural features and safe conditions, moving to a nearby public shelter may be an easier decision to make.

However, do Hawaii's public shelters meet the above criteria?

Immediately following Hurricane Iniki, state Civil Defense, as part of its emergency preparedness program, initiated action to survey existing shelters and other buildings on Kauai that had the potential to enhance evacuee safety should another storm affect the island. The term "enhance" is being used

here, because few facilities qualify as "hurricane-proof" structures.

The criteria used by the state team for the initial survey was based on after-action reports from Hurricanes Andrew (Florida-1992) and Iniki. The reports were published by the Federal Emergency Management Agency and professional engineering organizations in Hawaii.

These reports stated that wind-borne debris impacts and their penetration of a building's protective envelope were the most frequent causes for poor building performance during hurricanes.

The initial survey found just what the reports had predicted — the exposure and subsequent penetration of unprotected windows by wind-borne debris and a decided weakness of unsecured and poorly braced doors caused much of the damage to Kauai's homes and facilities.

The re-surveys documented the scope of mitigation measures required to improve the building's protective envelope. The likely evacuee capacity of each building was determined as well. Preliminary surveys of all Oahu and Maui shelters were also completed.

As part of the shelter surveys, the hotels on Kauai, Oahu and Maui were included. The recommended mitigation measures from the facility surveys were conveyed to the hotels for their action. The hotels have been very receptive to state Civil Defense recommended mitigation measures. The hotels were also encouraged to obtain their own structural analysis if they were uncomfortable with Civil Defense mitigation recommendations.

By encouraging the hotels to provide sheltering for their guests, critical staff and their families, less of a burden will be placed on the community's emergency public shelters.

Funding for the accomplishment of the recommended shelter mitigation measures is being requested under the provisions of the Stafford Act and Public Law 93-288, as amended. For those structures damaged by Hurricane Iniki on Kauai and Oahu, it is anticipated that FEMA will pay 100 percent of the mitigation costs.

The retrofitting of all other shelters will hopefully be covered under the act's Hazard Mitigation Grant Program, a sharing arrangement in which FEMA and the state each pay 50 percent of the costs. If that arrangement is not approved, then the state and/or county Capital Improvement Program will have to pick up the slack.

The surveys have eliminated some shelter spaces due to obvious shortcomings. Some new spaces have been identified and others are continuously being added as new facilities are constructed.

The good news is that there is sufficient shelter spaces available to cover anticipated evacuee demands for low intensity hazards that could affect the state.

One final word: if there is a lesson to be learned from the Hurricane Iniki experience, it is that design professionals need to take a more proactive role in structuring the state's homes, businesses and public facilities for potential catastrophes. To achieve this, professionals should blend and combine future architectural designs with those elements that will make the buildings functional and pleasing yet capable of being used, at least in part, as shelters.

Reality design should become our primary focus to greatly improve the odds in our favor.

↔ *Norman Ishikawa is the survivable crisis management engineer for the state Civil Defense.*

The following guidelines were used to determine the mitigation measures needed to qualify selected buildings as disaster emergency shelters on each of the islands. The mitigation measures, whether applied to a home or shelter, will certainly improve building survivability, though not guarantee it.

Architectural Considerations

The structure should be designed with minimal windows.

If windows are to be included in the building envelope, it is recommended that windows include protective devices, such as shutters or impact-resistant glazing. The impact-resistant glazing has to be capable of withstanding winds of 80 mph or more or be a rated-glass window assembly protected by a rated-steel shuttering system.

Rated assemblies are defined as those having been tested for "code required" wind speeds and having met International Conference of Building Officials standards. At the very least, steel security screens could be provided to impede penetration of the windows by flying debris.

All doors and door frames should be rated assemblies capable of resisting 80 mph winds.

All exterior walls should be water-proofed for protection from wind-driven rains.

Roof vents, fans and/or air-conditioning units should be securely fastened to the roof, be structurally adequate to withstand 80 mph winds and be protected from damage by wind-borne missiles and projectiles.

The structure should:

- have an independent emergency power source, such as an emergency generator with an ample fuel supply, to operate during and after a disaster occurs
- be easily accessible for disabled persons
- be located outside identified flooding or inundation zones
- have restrooms and running water available for shelter occupants
- have, where possible, sufficient parking spaces available for anticipated number of shelter occupants
- have a communications system (radio, telephone, etc.) available for shelter management staff use
- have some kitchen facilities available for both immediate and possibly long-term evacuee conveniences.

Structural Considerations

The building should be:

- designed and constructed under the supervision of a licensed structural engineer
- constructed of reinforced concrete and/or reinforced masonry
- have the capability of resisting wind speeds that meets the minimums prescribed by the 1991 Uniform Building Code.

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Final lecture in series set for April 10

Japanese Architect Shares Design Insight



Kazuyo Sejima

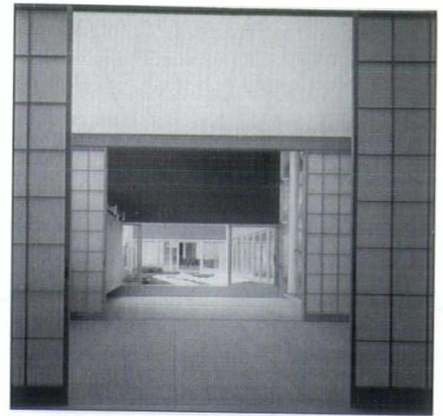
Kazuyo Sejima of Kazuyo Sejima & Associates, Japan, will be the last of the five Kenneth F. Brown Asia Pacific Culture and Architecture Design Award winners to participate in the University of Hawaii's School of Architecture's '95-'96 lecture series.

Sejima, recipient of the design award for her work on the Saishunkan Seiyaku Women's Dormitory in Kumamoto, Japan, will speak at 7 p.m., April 10 at the UH Architecture Auditorium.

Sejima, who graduated in 1981 from Japan Women's University with an architecture degree, has worked on several housing projects over the last several years, including Villa in the Forest and Y-HOUSE in 1994 and Pachinko Parlor I and II in 1993. She was recognized as the Japan Institute of Architects "Young Architect of the Year" in 1992. In 1994, she was awarded the Commercial Space Design Awards grand prize.

During 1993 and 1994, Sejima had three exhibitions. The first, "Labyrinth," was at the Sezon Museum in Tokyo and the Tukashin Hall in Hyogo, Japan. The following exhibition was "Kazuyo Sejima 12 Project," which was at the Gallery Ma in Tokyo. "Japanese Contemporary Design," her third exhibition, was hosted at the National Museum of Modern Art in Seoul, Korea.

At her upcoming lecture, Sejima will talk



Kazuyo Sejima's design extends individual space in the dormitory to bring about a sense of community.

about the design of the Saishunkan Seiyaku Women's Dormitory, which was built for approximately 80 female employees of a local business.

The dormitory's architectural concept was communal living. The purpose was to provide an open feeling in the dormitory and to create an extension of private living space to bring a sense of community to the building.

Because of the design, these women, who live and study in this dormitory for the first year of their employment, spend more time with their co-workers forging closer relationships.

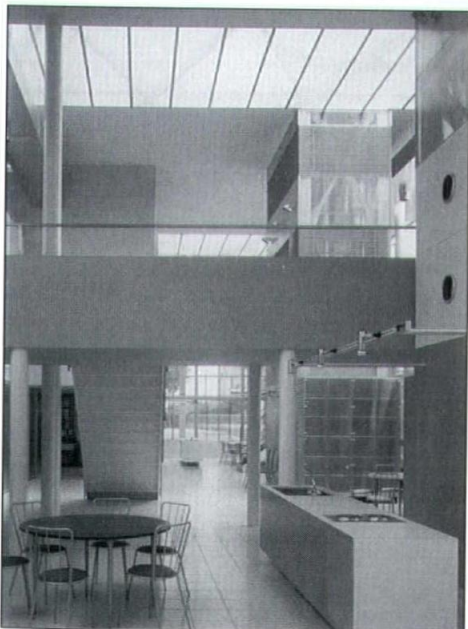
The working plan for the dormitory, built in 1991, called for a room arrangement which would make each person want to use the entire building as an extension of her own private space.

To allow for communal living, some personal space had to be sacrificed. Instead of individual bathrooms, a spacious common bathroom was designed. Providing a large living area was more important to the client's community goal than increasing individual living space. As a result, each living space accommodates four women, while the communal spaces remain as large as possible.

The design also used windows throughout the dormitory to allow natural light to fill the communal living space from all directions, adding to the open feeling. Transparent, semitransparent and metal elements were used to help achieve the client's goal of making each person feel as if she was outside.

The dormitory includes two wings with a large open space between the wings serving as the general living room. On either side of the living room is a terrace. This communal space also includes the entrance hall, caretaker's office, guest rooms and bathroom.

Using semitransparent materials, the dormitory gives the illusion of being outdoors.





Practical measures to combat the weather **Siding Alternatives**

Necessity is the mother of invention. It is such necessity that has led to the development of various materials used in cladding.

The tropical weather in Hawaii has created a market for products that, while protecting against wear and tear, can enhance the look of a structure. One alternative in cladding is siding panels.

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Composed of cement, ground sand, cellulose fiber and select additives, the products contain no asbestos, fiberglass or formaldehyde. The materials can withstand termite attacks and winds of up to 130 miles per hour.

For a unique cladding, Big Rock Manufacturing Inc. offers cast stone veneers. The Hawaiian stone reproductions are lightweight and can be applied to concrete, brick, plywood, wallboard and metal surfaces.

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gates and mineral oxide pigments, the product duplicates local, naturally occurring Hawaiian stones including lava, moss rock and coral. The veneer can also be made with custom-made petroglyphs.

Creative chemistry has also created a permanently flexible acrylic texture coating system to protect outdoor surfaces. Uni-tex by United Coatings provides long-term waterproofing and impact resistance that can be applied to a wide range of substrates.

This durable, color-stable wall system can be applied by spray or trowel to achieve the desired finished texture. The finish forms a barrier that is resistant to the effects of rain, ultraviolet rays, abrasion and other weather extremes.

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Campbell Square



Campbell Square, in Kapolei, is the new home for the corporate offices of the Estate of James Campbell previously based in downtown Honolulu. The estate, which historically cultivated sugar cane in the Kapolei area, decided to move its offices to promote the growth of the area as the second city and indicate the estate's commitment to its success.

Campbell Square is comprised of two office buildings, a courtyard and underground parking garage. The first building completed, the James Campbell Building, houses the estate's corporate offices.

The second building, the Kapolei Building, is a multitenant speculative office building. Both buildings, connected by the courtyard, have access to the garage.

Architects linked the complex to the public spaces around it creating "a broad

urban/public relationship." The entries and lobbies of both the James Campbell Building and the Kapolei Building are gateways connecting the courtyard to the regional park and pedestrian mall respectively.

One of the client's major requirements for this project was that the complex "tie itself to the life and workings of the city." To accomplish this, it was decided that commercial activity would take place on the ground level. This way the estate would not isolate itself from the city, but would embrace the city and become a part of it.

Kober/Hanssen/Mitchell Architects designed Campbell Square to be consistent with the scale of Kapolei. This was another main concern of the client, who wanted Campbell Square to display the estate's dedication to its beneficiaries and the people of Hawaii.

The lobby of the James Campbell Building is a gateway connecting to Kapolei Regional Park.

Credits

Owner/Client

The Estate of James Campbell

Architect

Kober/Hanssen/Mitchell Architects

Civil Engineer

Engineering Concepts Inc.

Contractor

Nordic Construction Ltd.
Fletcher Pacific Construction

Electrical Engineer

Darrel Itano & Associates

Landscape Architect

PBR Hawaii

Lighting

Wheel, Gersztoff, Friedman, Shankar

Mechanical Engineer

Michael Hattori & Associates

Structural Engineer

Richard M. Libbey Inc.



The James Campbell Building houses the corporate offices of Campbell Estate.

The Campbell Building exhibits a simplicity of detailing throughout and captures the essence of what is considered to be Hawaiian thematic imagery. The permanence of the materials sets a standard for establishing a new town center based on traditional architectural forms."





Dis 'n Dat

by Michael D. Tom, J.D.

A reader wrote to me recently inquiring about lien rights for architects and the perfection of those rights.

Any "person or association of persons" who furnish labor or materials for the improvement of real property is entitled to a mechanic's lien under Hawaii's mechanic's lien law, Chapter 507, Part II of the Hawaii Revised Statutes.

In *Nakashima Associates vs. Pacific Beach Corp.*, 3 Haw. App. 58 (1982), the Hawaii Intermediate Court of Appeals found that an engineering firm that performed design services was entitled to a mechanic's lien where they prepared plans pursuant to which a building

permit was issued and piles were driven.

In *Haines et al vs. Maalaea Land Corp.*, 62 Hawaii (1980), an architectural firm was denied a mechanic's lien. While not contesting the right of an architect to obtain a mechanic's lien, the Hawaii Supreme Court agreed that the requirements of the statute had not been met.

The firm had simply removed a ceiling and a door in an existing beach cottage on the project site, placed boundary pins and made some test borings. The court did not believe that such activity resulted in any actual or visible improvement to the real property.

Because the mechanic's lien

statute creates rights that would not otherwise exist at common law, there must be an improvement that benefits the land against which the lien is sought. Just because design work was performed does not automatically give rise to lien rights. There must be some benefit to the land.

Please note that the rules for the Procurement Code, discussed in the February issue, have been adopted.

♦♦ *Michael D. Tom, J.D., is a partner in the law firm Tom & Petrus. Educated as a civil and structural engineer, his practice focuses on the construction industry.*

General inquiries regarding the law and architecture are welcome.



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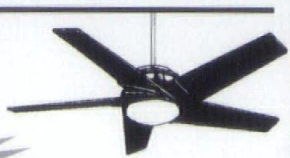
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