Hawaii Pacific Architecture









Tampering with Tradition

In 1953, Like Like Drive Inn Restaurant opened in Honolulu as a drop-in diner that was slated to become as isle-style tradition.

Allied Builders was tapped for contracting duties in 1994 when Roy and Dora Hayashi, owners of the one acre Keeaumoku property, decided to create the two-story Like Like Plaza, enhancing the popular restaurant, adding ADA amenities, and offering new tenant opportunities.

Observes Doc Sasaki, senior designer for Architects Hawaii, Ltd.: "Renovations can be technically and emotionally tough. Without available records, there were a few surprises — even some old railroad track. Allied's people were always cooperative and efficient. The working chemistry was good."

"Keeping hospitality in place was important to us," recalls Hayashi of Like Like's remodeling. "We appreciated Allied's caring, organized approach." Adds his wife, "I looked forward to our weekly progress meetings and missed seeing everyone when we were pau."



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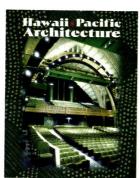
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IN THIS ISSUE ...

Hawaii Pacific Architecture focuses on theaters this month. Articles cover new theater projects -the Maui Arts & Cultural Center, a 1994 AIA Honolulu Design Award winner, and the Pearl City Cultural Center— theater lighting techniques which are used in other venues, the making of an opera and fund raising for nonprofit theater organizations. Recent renovations to the Hawaii Theatre Center, Punahou School's Dillingham Hall and Manoa Valley Theater are highlighted as well. A beach house renovation by Philip K. White Associates also is featured as a 1994 AIA Honolulu Design Award winner. The Hawaiian Tapa used on the cover and throughout the magazine is courtesy of the Bishop Museum.



Cover photo by David Franzen



16 The Poetics of Creating



20 Theater Lighting Concepts

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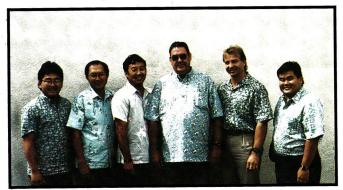
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A New Generation of Leaders.

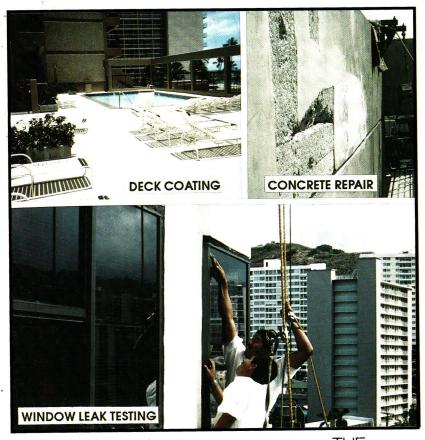


Heading a team of over 40 technicians are left to right: Alvin Nishikawa, Ken Matusumura, John Kobayashi, Al Gardner, Steve Kramer, and Jim Hiramatsu

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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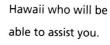
for a variety of effects.

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water like a duck. It's come a long way since its name origin as a term covering natural earth products that had been exposed to high temperature. Ceramic tile today is synonymous with beauty, variety, and practicality. It is a favorite with many pace-setting Hawaii architects and interior designers and graces many island homes and landmark buildings.

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value of your home, office or commercial project, contact your architect or interior designer. You also may phone 591-8466 to receive a listing of Union Ceramic



Tile Contractors in



Stan Gima, AIA Hawaii State Council immediate past president, recently stated that Act 253 dealing with false advertising, especially in the yellow pages, and unlicensed practitioners is now law. He also noted that a committee will be formed to accept complaints and documentation from AIAHSC members. Such complaints will be transmitted to the Council, then forwarded to

Gima also reported that House Bill 192 was defeated. HB 192, which would have raised the limit of projects requiring an architect's stamp from \$40,000 to \$120,000, was opposed by AIAHSC.

the Regulated Industries Complaints

Office, a branch of the Department of

Commerce and Consumer Affairs, for

further action.

The Council also reviewed bills dealing with energy conservation, tort reform, accessibility of facilities and public procurement of professional services.

Fujii Named PDCA National Vice President

Ray Fujii, president of Fujikawa Painting Company on Oahu, was elected national vice president of the 3,000-member Painting and Decorating Contractors of America Association at its recent Honolulu convention.

Fujii is a past president and current vice president of the Painting and Decorating Contractors Association of Hawaii and has served as chairman of many of its committees.

At the national level, he has served on the national Commercial Painting Committee and on the national Board of Directors as the Hawaii representative.

Fujii, a former nuclear engineer with the federal government, has been in the painting business for 20 years, and is the first person from Hawaii to be elected to a top national post with PDCA in four years.

KHMA Appoints Associates

Kober/Hanssen/Mitchell

has appointed three corporate associates with the firm.

Peter B. H.
Maertens, AIA,
is the project
manager for the
Kapolei Entertainment Center,
the new 16-plex
theater in



Peter Maertens

Kapolei. He has been with KHMA since 1987 and is based at the firm's Kapolei branch office.

Marc Lizama, AIA, is the project designer for a 150,000 square-foot shop-

Marc Lizama

ping and theater complex in Southeast Asia and a new town center complex on a neighbor island. Lizama also is recognized for his design work on the Pawaa Superblock market

and affordable housing components and commercial complex, Kapolei Entertainment Center and the Hana Ranch Club House.

Sam Kunimura, AIA, is the project

designer for the 180-unit Kalepa Village housing project in Hanamaulu, Kauai. Kunimura also has worked on a master plan for a new community in Central Oahu.



Sam Kunimura

AIA Awards Scholarships

To promote Maui students' participation in architecture, AIA Maui presented three scholarships with a total value of \$4,500. Two \$1,500 scholarships were awarded to high school students: Forrest L. Glick of Seabury Hall, who will be attending Arizona State University in the fall; and Karen Leilani Barnachea Pahed, a Maui High School student who will be a freshman at Notre Dame this fall. The college winner was Denise F. Yoshimuri, a fourth-year student at the University of Hawaii School of Architecture.

The awards program is in its fifth year and is largely funded through an annual golf tournament sponsored by AIA Maui and Wailea Resort Development.

Natatorium Recognized as Endangered Historic Site

The Natatorium has been included in the National Trust for Historic Preservation's "America's 11 Most Endangered Historic Places" list for 1995. The 1927 World War I memorial received this dubious distinction in recognition of its historical importance, long endangered state and because there is still hope to save the site.

The Natatorium, submitted to the National Trust for consideration by the Friends of the Natatorium, was one of more than 100 sites submitted from across the nation.

1995 BIA Parade of Homes Entry Deadline Nears

The deadline is drawing near for entry in the 1995 BIA Parade of Homes.

The Building Industry Association of Hawaii, co-sponsor of the event with the Hawaii Association of Realtors®, will accept applications for entry of new and remodeled homes until June 15, according to Albert D.K. Chee, 1995 BIA Parade of Homes chairman.

Chee said 16 entries, located on

Oahu, the Big Island, Kauai, Maui and Molokai, have been signed-up to date. Chee also indicated that the majority of this year's entries are "affordable" and mid-price range homes.

Entries will be in competition for a variety of awards. Properties will be judged by a panel of business leaders representing the fields of appraisal, architecture, construction, interior design, finance, landscaping and real estate. Winners will be honored at a gala reception in September.

The 39th annual BIA Parade of Homes will be held Saturdays and Sundays, Sept. 9-24.

Group 70 Appoints Diagnostics Director

Robert L. Rodin, AIA, has been named director of Group 70 International's Building Diagnostics Department, a new position within the 45member firm.

Rodin operated his own architectural practice for nearly 12 years and was most with recently the Honolulu office of Wiss, Janney, Elstner Associates Inc. He



Bob Rodin

has a bachelor's degree from Pratt Institute, and has studied at the Polytechnic of Central London as part of Pratt's foreign study program.

Earth Day Celebration

In celebration of the 25th anniversary of Earth Day, children from Barbers Point Elementary School; members from the American Planning Association, Hawaii Chapter; American Society of Landscape Architects, Hawaii Chapter; American Institute of Architects Honolulu; and military personnel gathered to landscape the entry area at the base headquarters building.

Irvin Higashi, president. ASLA, Hawaii Chapter, designed the landscape plan, which surrounds a newly-built wheelchair access sidewalk. He said his plan incorporated native Hawaiian species because "as development creases on the island, native plants are being destroyed."



Concern for the environment brings many from the Barbers Point and professional communities

The plan uses eight Loulu Palms with groups of white hibiscus, Ape shrubs and Hinahina plants. Ground cover includes Akia and yellow-flowered Ilima Papa. Plants were donated by companies including Takano Nakamura Landscaping, Makakilo Nursery, Hawaiian Foliage and Landscaping, Creative Landscaping, Green Thumb Inc. and Island Landscaping.

Lambda Alpha Officers

The following people have been elected to serve as the 1995-96 officers for Lambda Alpha International: Francis S. Oda, AIA, president; David L. Ramsour, Ph.D., vice president; Karen T. Nakamura, secretary/treasurer; Nancy Peacock, AIA, scribe; John P. Whalen, historian; Willard Tim Chow, Ph.D., immediate past president.

Three new members have been initiated into membership: Rosemary Fazio, Sanford Murata and H. Howard Stephenson.

Lambda Alpha's Aloha Chapter, which was founded in 1983, is composed of leaders from various professions who have made notable achievements in fields related to land economics.

National AIA Elects Officers at May Convention

Raj Barr-Kumar, FAIA, was elected to be the first vice president/presidentelect at the National AIA Convention held in Atlanta. He is currently principal of Barr-Kumar Architects Engineers, a Washington, D.C. firm which specializes in hospitals, medical facilities and commercial buildings. He is a graduate of the University of Ceylon with post graduate degrees from the University of London and University of Kansas. He has practiced in Florida, Kansas City, London, Hong Kong and Sri Lanka.

Also elected at the convention were vice-presidents Richard H. Bradfield, FAIA, from Atlanta, Michael J. Stanton, FAIA, from San Francisco and Joseph J. Wisnewski, FAIA, from Fairfax, Va. Elected to the two-year term as treasurer of the Institute was L. Duane Grieve, AIA, of Knoxville Tenn. All new officers will be sworn in for their 1996 terms at a Washington, D.C., ceremony in December.

Bringing a project to life

Fund Raising for a Nonprofit Theater Organization

by Sarah M. Richards

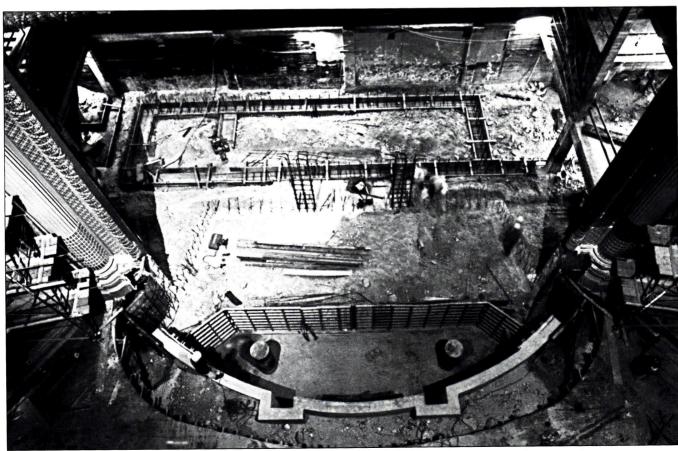
In order to install a hydraulic lift in the Hawaii **Theatre Center** orchestra pit, 22 feet of coral had to be excavated. The stage floor was replaced due to termite damage.

ow does it all begin? Long before the architect is hired or fund-raising plans formulated, a group of civicminded citizens with stars in their eyes begin talking about the glories that once were in a beautiful old theater. They envision serving future audiences with dazzling displays of talent and exciting shows.

Typically these individuals band together to establish the Articles of Incorporation and Bylaws and create the 501(c)(3) nonprofit organization. Then a diverse group of business and community leaders with the necessary

resources, contacts, professional skills and leadership abilities are recruited to carry out the mission of restoring or building the theater.

The next step is the accumulation of funds to bring in experts and consultants to advise on the feasibility of the dream and engage the architects to begin initial conceptual drawings. If the verdict is a positive one, the group then embarks on the task of planning for a capital campaign, often with the project being organized in phases to be completed as resources become available.



The capital campaign

After obtaining community support, the group launches the capital campaign, usually with professional counsel, and the project is on its way. The first staff members are typically hired at this point and a very serious commitment is made to reach the objective.

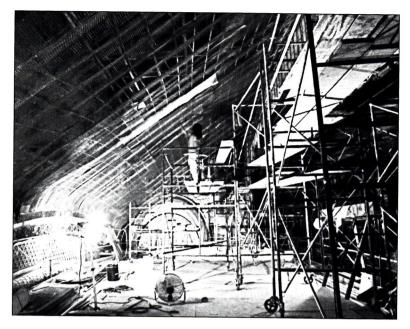
In the case of the HTC, the board of directors agreed to operate the theater in its then "shabby" condition; raise the money in a phased manner; and bring the theater to a comfortable operating level. Shortly after this decision was made, the architectural estimates, based on drawings, arrived. The real condition of the building was ascertained and the prospect of not being able to operate the theater at all because of its unsafe condition emerged. It then became apparent that more than \$22 million would have to be raised to restore the theater.

At $_{
m this}$ point, HTCdeveloped private/public partnership for a large capital campaign, and began "serious" fund raising from trusts, foundations, corporations and individuals. HTC also initiated advocacy work with key legislators and state government officials.

To date, HTC has raised more than \$21 million from both private and public sector sources and the interior construction of restoration and renovation is approximately 90 percent complete. The accumulation of resources always takes longer than expected, but a key decision made by HTC's board of directors was to begin construction in a phased format even though the entire sum needed to complete the project was not available. While this tends to make construction last longer, it is very important for donors to see progress. If a project is not started until all the money is accumulated, it will probably never become a reality.

In reviewing what is necessary for a nonprofit organization to successfully build, restore or renovate a facility and then operate it, the following elements are key:

- Articulation of a broad mission statement that meets a real community need.
- Formulation of a long-range business plan.
- Recruitment of board members with the necessary leadership, fund-raising and technical knowledge to get the job done.
- The hiring of experienced and creative architects, technical consultants, advisors
 - · Creation of an ambitious but plausible



fund-raising strategy.

- · Development of a program for creating broad community awareness and obtaining support.
- Assemblage of committed, hardworking and knowledgeable directors and staff who keep the vision; persevere; and maintain the momentum and humor to open the theater.

Sustaining theater operations

Once a theater is open, it needs to be operated to achieve the greatest usage while optimizing earned income, including rental of performance space, function rooms, concessions, equipment, catering kitchen and use of the box office. At HTC, operations will be funded with the earned income, combined with theater presentations, an annual giving campaign and special events.

All performance facilities across the country require operational support from outside sources. Often, this support comes from city, county or state governments. Additionally, many theaters establish an endowment fund and planned giving programs to provide stability for theater operations.

The building of a major theater today is not unlike the building of a cathedral in medieval times. It takes many years from concept to completion, requires the work of many individuals in differing roles and costs a great deal of money. However, projects of this nature become a foundation of community pride, uniting generations of citizens who are educated, enriched and inspired by the theater's offerings.

→ Sarah M. Richards is executive director of the Hawaii Theatre Center.

Due to extensive termite damage, the sounding board above the proscenium arch had to be replaced.

Photos by David Franzen

Renovation and restoration reflect dedication to arts

Community Theaters Enhanced

by Sandi P. Quildon, AIA

"The Glorification of the Drama" mural by Lionel Walden, atop the **Hawaii Theatre** Center proscenium, has been restored to its original grandeur.

ovie palaces, once the place to see and be seen in, were extravagant structures in the traditional form. Even the term "palace" creates an image of richness of decor and embellishment. The Hawaii Theatre Center will soon again grace Honolulu's Chinatown area in full regalia. Currently undergoing restoration and renovation by the architectural firm Hardy Holzman Pfeiffer Associates, HTC is slated to open in Spring 1996. The Center will re-introduce cultural

experiences long absent from this particular

Designed in 1922 by Emory & Webb of San Francisco, HTC has been called the "Pride of the Pacific." The 1,400-seat beaux arts theater served as a showplace for Vaudeville, plays and musicals, and eventually evolved into a plush movie palace. The only remaining classical auditorium in downtown Honolulu, HTC is listed on both the national and state registers of historic places.

Hardy Holzman Pfeiffer Associates is



restoring both the interior and exterior with the utmost respect for the building's historic past. An art conservation program has allowed for the cleaning, patching and restoration of canvases and ornamental plaster. Lionel Walden's mural, "The Glorification of the Drama," across the top of the proscenium, has been faithfully restored, including re-creation of a major piece of the work. Patterns from original linen seat cushions have been translated onto the design of new seating fabrics and new lobby carpeting.

Going beyond the features of the original

building, the re-opened Hawaii Theatre will incorporate an enlarged wing area at stage left, an expanded orchestra pit with hydraulic lift, new lighting, sound and projection systems, new dressing rooms and a large function with room catering kitchen. Audience improvements will encompass wider seats, improved sight lines from every seat, better acoustics and facilities which comply with the Americans with Disabilities Act.

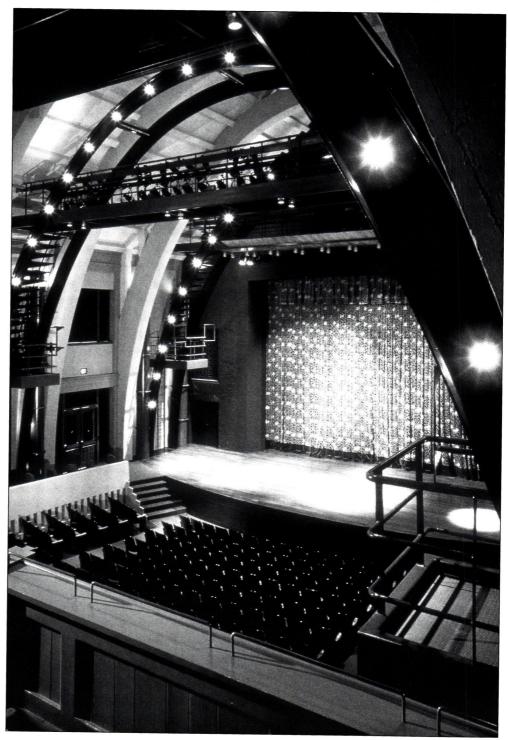
Future expansion will feature enlarged lobbies, a grand stairway, an elevator to the balcony, rehearsal rooms, administrative offices and concessions to serve expanded audiences.

Hawaii Theatre's revitalization into a state-ofthe-art performance facility is a vital component in the redevelopment of Honolulu's historic Chinatown. This project is the first phase of a master plan that will use the remainder of this downtown city block for additional public and support spaces.

Another theater, Punahou School's Dillingham Hall, is simple yet elegant in form. Originally designed by architect Bertram Grosvenor Goodhue, Dillingham Hall was completed in 1929.

Hardy Holzman Pfeiffer Associates, also responsible for this building's restoration and expansion, took on the challenge of incorporating and updating antiquated building systems-air conditioning, sound, lighting, stage, equipment—and developed additional space for the school's music and drama curriculum. Dillingham Hall is well-designed and planned in the layout of some of the "behind-the-scenes" spaces, providing greater functional support for the preparation of musical and drama performances.

A custom-made cotton velour stage curtain, with a repeating night-blooming Cereus pattern, was created for Dillingham Hall.





During renovation, asbestos was removed from the Hawaii **Theatre Center** domed ceiling.

The auditorium features six structural concrete parabolic arches. Three new steel arches were added within alternating bays that follow the shape of the originals. Catwalks for house lights, technical lighting, sound systems and other production equipment are suspended from the arches. An acoustical reflector made of Koa wood is mounted to the arch closest to the stage.

Seating for 613 patrons was reconfigured on the orchestra floor and in the balcony to improve sight lines; a parterre was installed on the main floor level to narrow the auditorium and enhance room acoustics. It also provides wheelchair access to the extended stage platform.

New interior design elements feature a cool palette of tropical greens and blues. Existing seats were re-upholstered with durable synthetic fabric produced in a three-dimensional green-and-navy cube pattern. Floor covering consists of textured blue carpet and linoleum.

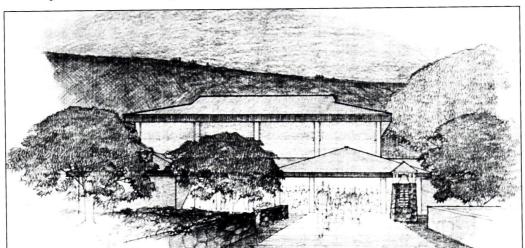
The auditorium lobby was enlarged for easier patron circulation by removing exterior rest rooms. The original coralstone floor has been cleaned and refurbished, and a new light-and-sound control room is located in an expanded version of the original lattice-work, wood ticket booth.

Improvements to Dillingham Hall's 65year-old mechanical and acoustical systems include air conditioning and ventilation. Acoustically treated, 26-foot vertical air supply ducts were painted green and integrated into the room as decorative elements. Large illuminated steel globes were installed atop each cylinder to augment house lighting. The stage itself was equipped with a versatile, mechanized pit lift which can be elevated to make room for a 25-member chorus or lowered to accommodate a 100-student orches-

The exterior restoration of Dillingham Hall, undertaken by the Honolulu firm CJS Group Architects Ltd., updates the original white stucco building enclosure. A 7,060square-foot patron pavilion houses the box office, rest rooms and other amenities. An adjoining open-air performance platform creates a grassy amphitheater and student gathering place under the shade of a Monkeypod tree.

Dillingham's traditional, Hawaiian-style sloped roof was replaced using green-glazed "mission barrel" clay tiles made by the Gladding McBean Co., which supplied the original tiles in the 1920s. Custom Redwood windows and doors were installed throughout and painted green, alongside new darkstained Redwood columns and pergolas which replace decaying trellises, shade arbors and partially covered lanais.

Designed for a much audience, smaller Manoa Valley Theater, an intimate 150-seat off-Broadway Playhouse, celebrated its 25th anniversary in 1994 with a newly-remodeled facility. Architect Frederick Furer, AIA, oversaw the renovation which added a second story to the mauka end of the building and 3,745 square feet of



As part of the remodeling plan, a second story was added to the mauka end of the Manoa Valley Theater.

new backstage area. The entire facility now encompasses 11,913 square feet.

To make the facility more userfriendly for performers, the dressing room has been completely re-built and enlarged, and is now upstairs. An actors' access door at the secondstory level now connects the dressing room with the performance room for those occasions when a two-story set is in place on stage.

The loading door between the performance room and the scene shop has been enlarged substantially, and changed from hinged doors to sliding doors. An elevator also was installed to make the backstage and dressing room areas completely accessible to physically-challenged individuals.

To enhance performances, the control system for the house lights was upgraded to permit more variations in house light intensity and control. Also, the lighting pipe "grid" system was lengthened to provide more hanging positions for lighting instruments, and additional electrical outlets were installed in the performance room walls. The performance room was re-painted to the traditional "black" of a blackbox theater.

The exterior of the building was painted and the front lanai was lengthened by 60 feet, fronting the new addition. A roof to cover the sidewalk on the Diamond Head side of the performance room also was added.

Painstaking restoration and renovation of The Hawaii Theatre Center, Dillingham Hall and Manoa Valley Theater demonstrates a deep community commitment to the performing arts. More than this, however, the attention to detail involved in the architectural work underlies a sincere dedication to preserving Honolulu's artistic and cultural identity.

→ Sandi P. Quildon is an architect with the Honolulu architectural firm Long & Associates. She has a special interest in the re-adaptive use of theaters.

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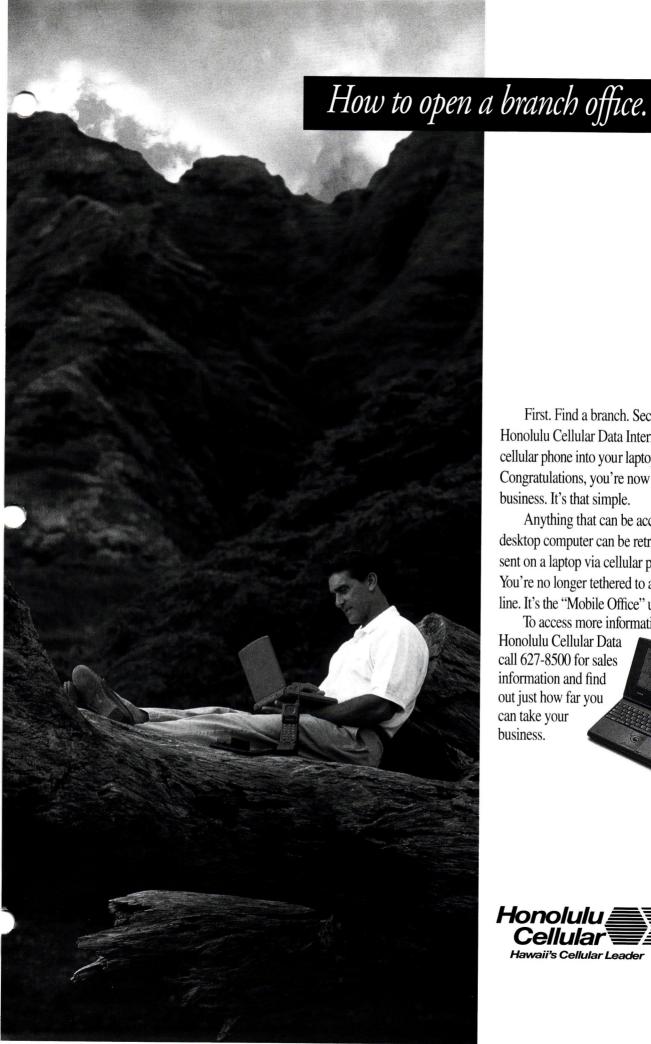
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Parallels in the production of opera and architecture

The Poetics of Creating

by Lorrin Matsunaga, AIA

Although music and performance are at the heart of any opera, this article concentrates on the physical and spatial aspects of the producing of "Madame Butterfly," during Hawaii Opera Theatre's 1993 season. Lighting and set design are examined to make connections between the production of opera and architec-

ture. This presentation of "Madame Butterfly" is considered to be one of Hawaii Opera Theater's finest productions in terms of performance, stage design and direction. It has been featured in a "Spectrum" piece by Hawaii Public Broadcasting.



In Act 1, as Butterfly marries Pinkerton, a series of dark cloths hang above the stage with painted bold, white, stylized swirls, symbolizing clouds. The spareness, formalism and geometry of the somber stage setting is reminiscent of traditional *Kabuki* theater.

n opera and architecture, the planning and production processes require the collective efforts of many talented individuals, including project directors and managers, artists, artisans, technicians, carpenters and stage hands. These people may work individually at times, or as teams at other points in the process. Their involvement may be brief and intense, or may last months, even years.

As the deadline approaches, there will be a flurry of intensive work by the production team to put the final pieces together in creating the end product. In opera, this end product is the magic of a three-hour performance. In architecture, it is the creation of a building which has a considerably longer life.

Two years prior to opening night

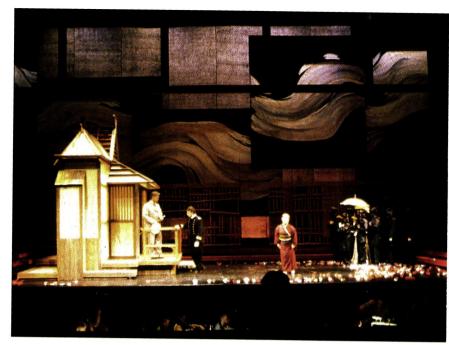
The selection of the slate of operas for an upcoming season is made up to five years in advance. For HOT, three to four operas, four performances per opera, are offered to Honolulu audiences in a typical year. More specific planning occurs two years in advance of a scheduled season.

Decisions about what operas to present are made by the Hawaii Opera Theatre repertoire committee, which includes members of the opera board, with input from the artistic director and general director. The committee looks for a balance between audience appeal on one hand, and the desire to present something fresh to push artistic limits on the oth-

At HOT, the positions of artistic director and general director lie in the hands of Mario Ramos, vouthful and energetic musician/conductor, who came on board in 1992. The 37-year-old Ramos is responsible for providing the overall leadership and broad, artistic goals for "Madame Butterfly." so that everyone involved in the production worked toward the same goals.

18 to 12 months prior to opening

About 18 months prior to opening night, Ramos selects the stage director and music director (conductor). They are, respectively, Henry Akina, a Hawaii-born director residing in Germany, and Robert La Marchina, the distinguished, former music director for the Honolulu Symphony Orchestra, who first performed the Puccini opera in Japan. Their specific directions and interpretation of Puccini's music are critical to the overall success of the opera performance.



Taking the broad, artistic goals established by Ramos, Akina and La Marchina must develop and refine his ideas into a cohesive, artistic work. Utilizing their skills and experience, they must take the human and material resources at hand-the performers, musicians, chorus, choreography, sets, lighting, wigs, makeup and costumesand create a total performance.

12 months prior to opening night

It is 12 months before opening night. After

In this scene, Pinkerton's ship has returned to Nagasaki. As moonlight streams in, **Butterfly** is determined to sit through the night with her child and maid to await Pinkerton's arrival.



The interior of Butterfly's house is perfectly rendered in the traditional *sukiya*-style of architecture. The union stage hands, dressed in black in the tradition of Japanese stage craft, silently and solemnly rotate the house to expose its exterior face to the audience.

the stage and music directors are on board and the principal cast members have been selected, Ramos finalizes negotiations with Peter Dean Beck to do the stage design. Beck has been involved with HOT productions since 1986, working out of New York City.

Beck stated that he almost studied architecture, but instead pursued his first love, stage and lighting design at NYU, receiving his MFA in 1977. Beck said that the composer's music informs the work, adding that there is "an inner voice coming from the work that tells you what the design direction should be. Some people never hear the voice..."

Beck noted that in "Turandot," the monumental scale is inherent in the music so that the response is about broad strokes and grandness manifested in the imperial architecture of ancient China. In "Carmen," the "Spanishness" of Bizet's music pervades the

In "Lucia," which tells of a woman who goes mad and murders her husband on her wedding night, the action is more internal. The landscape of the Scottish moors and the architectonic elements within the landscape are presented more abstractly in a series of sharply angled, level changes, like an architect's site contour model.

For the "Madame Butterfly" production, Beck said he believes Puccini's music is trying to depict two worlds, the world of Butterfly and the world around her. These are opposing worlds. The world of Butterfly is about "small details, a comb, a brush, a ribbon, a box containing her father's dagger." In addition, the main character's traditional Japanese house symbolizes Butterfly, while space surrounding this object represents the world around her, informed by a dark stylized formality.

Madame Butterfly—the opera

Giacomo Puccini's opera, "Madame Butterfly," tells the tragic love story of a young idealistic Japanese concubine named Cio-cio-san (Butterfly) in turn-of-the-century Nagasaki, who is brokered to an American naval officer named Lieutenant B. F. Pinkerton. While the marriage is simply one of sexual convenience for Pinkerton, Butterfly's idea of marriage is perceived as an eternal and sacred bond between her and Pinkerton. When Pinkerton deserts her for America, she never gives up hope that he will return for her and her child. Renounced by both cultures, she is ultimately destroyed.

Thus, the design concept is about "a small house in a big space," Beck said. One world is literal and representational, while the other is more abstract, stylized and formal.

In typical productions of "Madame Butterfly," the sets tend to be romantic and nostalgic, with cherry blossom trees in the courtyard, blue skies and wispy white clouds, with a hint of Nagasaki Bay beyond. These productions will have the chorus move about the stage holding quaint Japanese lanterns. The sets for the HOT production are quite differ-

Beck works on the set design a year in advance, producing a series of rough, concept sketches. He prefers not to make the drawings "too tight or refined" because this tends to kill the dialogue between him and the artistic and stage directors. During the conceptual phase, Beck produces perspective drawings, illustrating the different acts, a light box of the stage and a detailed scale model of Butterfly's house, to give Ramos and others a better sense of the design.

Beck works closely with Akina in Germany via long distance telephone. He credits Akina with establishing a very clear direction for the production. Akina has specific ideas about what the production and the action should do. According to Beck, less successful collaborations sometimes occur when the stage director's artistic motivations are less clearly defined, based more on what is not desired rather than what should occur.

The final working drawings prepared by Beck's staff in New York are mailed to Hawaii for construction by the HOT scene shop, led by head carpenter Allan Omo and scenic artist Emi Okinaga. The blueprints are not unlike the drawings for a small architectural project, and include a "site" plan of the stage; floor plan, exterior and interior elevations and details of the house; and detailed lighting plans and sequencing instructions.

Beck, Omo and Okinaga discuss dimensioning questions, details and material finishes by telephone. Beck will not see the completed sets until his arrival in Hawaii, about two weeks prior to the opening performance. Omo's crew works through the fall, from September to December 1992, constructing the sets in HOT's Waimanu Street warehouse. By January 1993, they are ready for assembly. When the sets are ready to be set up in the Blaisdell Concert Theater, Omo and production director Gary Anderson em-

ploy a crew of approximately 40 workers, including carpenters, electricians, sound and lighting personnel and "super text" projectionist.

The final Butterfly set design

After many months of planning and construction, sets are ready for the opening night audience. Located directly in the center of the stage, Butterfly's tiny pavilion of natural wood and shoji is surrounded on three sides by a wooden fence and a lacquered red boardwalk running parallel to it, presenting a formal symmetry to the audience. The fence and boardwalk delimit the dark, flat stage floor, framing the house. The color black predominates, focusing attention upon the house and compressing the space like a Japanese wood block painting.

Above the stage hangs a series of dark cloths upon which are painted bold, white, stylized swirls, symbolizing clouds. The spareness, formalism and geometry of the somber stage setting is reminiscent of traditional Kabuki theater.

The exterior and interior of the house are carefully detailed, communicating essence of traditional Japanese sukiya-style architecture. It is cleverly constructed as a cutaway section so that the exterior and interior faces are on opposite sides, like the Japanese outer face and inner soul. When action takes place around Butterfly's courtyard, one sees the exterior of the house, with its hipped roof, exposed wood rafters, veranda and shoji panels. The house is beautifully realized and exquisitely put together.

According to Beck, the house represents Butterfly, mobile and changing, while the passive and unchanging landscape surrounding the house represents the rigid and unforgiving society which passes judgment on the main character. Instead of set changes that traditionally occur behind the curtains during intermissions, black-clad stage hands are integrated into the action, moving the tiny house on the flat stage floor.

When the action changes from within Butterfly's house to the outside, the cutaway section is slowly rotated by the union stage hands who are made part of the action, like the "invisible" Bunraku puppet masters. They rotate the house silently in slow, choreographed movements.

Ramos has described opera as "complete theater." As theater, opera tells a story and carries the action through its music. Opera is



In the final scene, Butterfly, dressed in her wedding kimono, stabs herself with her father's dagger.

a highly stylized art form and an abstraction of real life. It can never come close to re-creating reality. The entire dialogue is sung by the performers, never spoken, supported by sets, lighting, wigs and costumes, choreography, supernumeraries and a symphony orchestra.

Thus, opera is about the creation of "illusion and a suspension of belief." If the composer is truly inspired, and the total performance by an opera company is equally inspired, the audience is transported to another time and place, swept up by the action and music it is observing and hearing.

In architecture, strong design ideas, manifested in the integration of light, materials and building systems, can result in a memorable and enriching place for inhabitants and visitors. Like opera, the design and construction process in an architectural project is long and arduous, requiring the collaborative efforts of many skilled people, including an enlightened client. If the vision is clear and everything goes as planned, the result will be a highly satisfying and memorable building, which will serve the community for many years to come.

→ Lorrin Matsunaga, AIA, is a principal at Urban Works. He has been attending opera in Hawaii since 1984. His wife, Karen, is president of the HOT Education Guild. The author thanks baritone Erik Haines, Peter Dean Beck and Allan Omo of the HOT scene shop for their help in researching this article.

Acoustics and Lighting



Illumination helps create 'real' experiences

Theater Lighting Concepts

by Rick Chong, P.E.

To create the correct color and dimension for this sculptured Buddha, İight is projected from two frontal positions at 45degree angles and a high back light. Photo by Rick Chong

een to the theater lately? Witness the tural design world.

Whether lighting a person, space, display, or structure, the lighting can have a critical impact on the final experience. Almost automatically, lighting design involves the integration of theater lighting concepts. Concepts

extravaganza of a Broadway musical or attend a carefully-crafted mystery drama? Notice how the sets and props look so real? Chances are most of it was not real. Furthermore, these stage components would not have looked as real if not illuminated properly. Correct lighting can help create "real" experiences. The same can be said for lighting in the architec-

Above, the display at Carrera Y Carrera, Ala Moana Center, provides examples of how lighting adds dimension and texture.

Photo by Augie Salbosa

include: line, dimension, movement, color and texture.

Line, as an element of lighting design, defines form. Emphasizing lines of an interior or exterior space through the use of light helps define architectural shape. A common example is the use of low-voltage strip lights or fiber optic cable mounted along the edge of a building's exterior or roof line, clearly defining the shape of the structure.

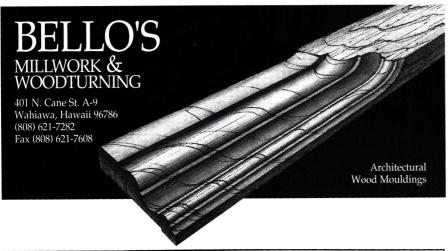
In lighting design, dimension defines the size and shape of a form. Through proper placement of light sources, illuminated objects have dimension. For instance, lighting a sculpture from an extreme horizontal angle will tend to flatten its shape and size. Lighting the same sculpture from the proper 45degree front angles will enhance its shape and size, while adding a high-angle back light will create depth.

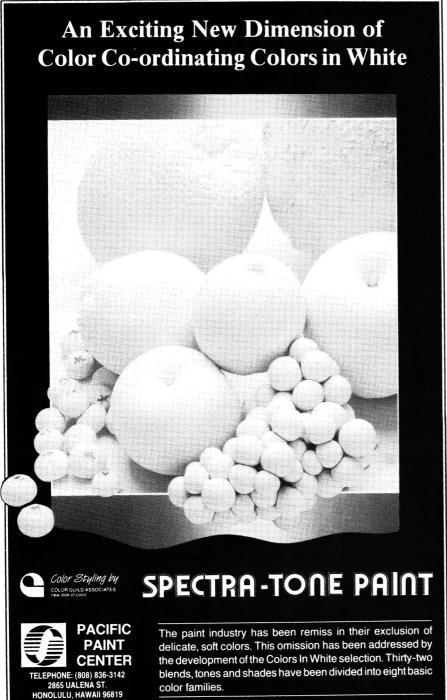
Movement, as an element of lighting design, gives the impression of movement or change through optical change. Any visible change in intensity, distribution or color is the movement of light.

Examples of movement are the many lighted and animated marquise characters throughout Las Vegas. Utilizing changes in intensity, distribution and color, each marquise has distinct movement. On a more subdued level, movement of time is experienced by subtle changes in a restaurant's lighting level through an automated dimming system.

Right, this display at North Beach Leather, Ala Moana Center, is an example of how lighting places action, establishes a mood, and reinforces a theme. Photo by Augie Salbosa







Color is a powerful stimulus. It alone can change the dimension of form, alter spacing, and generate optical motion. An example of how color changes one's visual experience is demonstrated daily by the color clothes one selects to wear. It is well understood that certain colors make a person appear slimmer or heavier. The same effects occur with colored light.

Texture, as an element of lighting design, is the treatment of surfaces. The manner in which a surface is illuminated will definitely determine how that surface is perceived. For example, a split-face brick wall lit from a horizontal angle will appear very flat. However, if that same split-face brick wall is lit directly from above, i.e., a vertical angle, the rough surface will come alive from the mixture of light and shadow. In lighting a wall sculpture, lighting from vertical angles will bathe the sculpture in light and shadow, giving it form, size and character.

Utilizing these theater concepts in a complete composition, permits the theater lighting design to place the action, increase visibility, establish the mood, stage the story, and reinforce the theme of the story. The same can be said for applying these concepts to architectural lighting design.

Proper dimensioning, color selection and intensity all are critical in placing the action. If the action is a tabletop display in a hotel lobby, one would select the proper lamp types and aiming angles to give the display presence; select the lamps' color temperature to render the colors most brilliantly; and select the correct lamp wattage to balance the intensity within the space.

Lighting is essential to visibility. Without light one does not see. With poor lighting one may not see it all. With lighting—detailing lines, highlighting movement, painting vivid color and revealing texturespaces, objects and people become a visible experience.

Spaces, especially those selling

or displaying goods and services. can utilize lighting to establish the mood. If red-filtered light is utilized. one would tend to feel intense. In the case of an ocean sports store, colors of blue in the lighting may evoke feelings of coolness associated with the ocean.

During any theater production, stage lighting is critical to producing the story and transitioning sets of actions or scenes. In the world of architectural lighting, this correlates to transitional lighting. An example would be how the lighting in a hotel balances along the corridor or lobbies and from one food and beverage outlet to the next. Enhancing transitional areas through correct dimensioning, color and texture with lighting makes these areas inviting and promotes circulation. Transitional areas between departments in a store need to balance the two adjacent departments; one does not want to walk through a tunnel.

Thematic sconces, chandeliers, pendants or torchieres are simple ways to reinforce the theme. Have not we all been to the chinese restaurant with the internally lit paper lantern or the country western shopping center with the antique lamps and warehouse style pendants? These are examples of lighting vocabulary that fit in with the design genre.

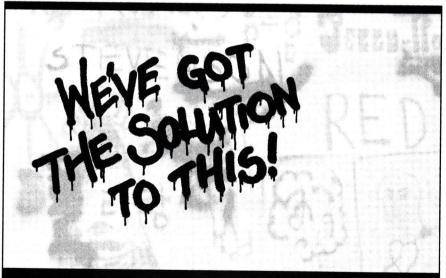
So, as in the theater, lighting design for a custom home, office space. retail store, acclaimed museum or a five star hotel, should be composed to draw lines, scale dimensions, generate movement, paint colors and carve textures. When the lighting components place the action, increase visibility, establish the mood, stage the story, and reinforce the theme; a "completed scene" is created.

↔ Rick Chong, P.E., vice president of Albert Chong Associates Inc., is a lighting designer who holds a master's degree in illumination. He has worked in the theater and has received local and international awards for his architectural lighting designs.

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Maui Arts & Cultural Center

he genesis of the Maui Arts & Cultural Center extends back to 1966 when general discussions were initiated to build a home for Maui's art groups. Twenty-eight years and \$23 million later, a facility arises from a 12-acre site above Kahului Harbor that is testament to the commitment of the state, county and the people of Maui to the arts.

The main theater seats 1,200 and has multi-use capabilities; adjustable acoustics, complete technical capabilities backstage and front-of-house, orchestra shell and a 30-by-50-foot proscenium.

The gallery provides 4,000 square feet of visual arts space. It holds adjustable lighting tracks, movable dis-

play partitions, preparation rooms immediately adjacent, and has a classroom equipped for hands-on classes in a variety of visual arts.

The amphitheater is an open-air facility with a stage and sophisticated lighting and sound equipment for outdoor concerts. It seats as many as 4,000 people and is the focus of the arcade, which embraces the entire complex and the mountains of Iao Valley.

The Maui Academy of the Performing Arts is a studio theater for rehearsals, and has limited performance capabilities. It holds 250 people, a scene shop, costume shop, classrooms for dance and theater and administrative offices.

The ancillary facilities are the Center's administra-



The Maui Arts & Cultural Center was completed in April 1994 on a 12-acre site above Kahului Harbor, which is part of the Maui Central Park and adjacent to Maui Community College.

Jury's Comments

"A successful composition of geometrical forms, which respect the Hawaiian vernacular while exhibiting a fresh boldness sited in its expansive natural setting."



The main theater seats 1,200 people; 600 on the main floor, 300 on the mezzanine level and 300 on the balcony

tive offices and patrons' lounge. The Pa Hula is a rock-faced mound dedicated to Hawaiian cultural tradition.

The design concept begins with great respect to the landscape, and the buildings have been elevated above the adjoining terrain on a platform partially encircled by a handcrafted stone wall.

The varying roof pitches against the panorama of mountains not only resolve the questions of scale between elements, but also serve to suggest a village of forms, appearing in constantly differing perspectives, sometimes silhouetted against the water, and at others against the valley and mountain.

Credits

Owner/Client

Maui Arts & Cultural Center

Architect

John Hara Associates Inc. with Ernest H. Hara & Associates Inc.

Civil Engineers

Warren Unemori Engineering Inc.

Structural Engineers

Robert Englekirk Consulting Engineers Inc.

Mechanical and Electrical **Engineers**

ECS Inc.

Landscape Architect

Belt Collins & Associates

Theater

Jules Fisher/Joshua Dachs Associates

Lighting

Fisher, Marantz, Renfro & Stone

Acoustics

Kirkegaard & Associates

Contractors

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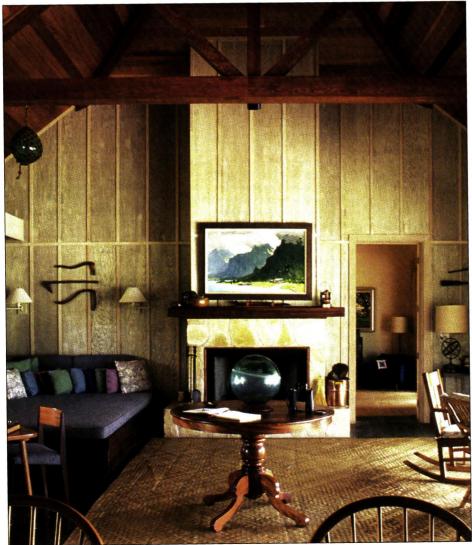
Renovation and Addition of a Beach House

Through the front door, one can catch a glimpse of the Koolau mountains.

The living area hosts natural colors and vaulted ceilings. Nanakuli sandstone was used for the fireplace facing and terrace in front of the lanai.

Photos by Linny Morris Cunningham





n a prominent beach front in Laiemaloo, between Hauula and Laie, a house sits amid an old sugar pier, the ocean and the mountains. The owners, a prominent kamaaina family, have an association with the area dating to the 1920s.

The design challenge was to create a new family weekend retreat, integrating the existing cottage with a seamless addition while maintaining privacy, openness, a sense of history and a spirit of place. The house needed to provide three generations of the family with "places to get away and places to get together."

The design solution was a ushaped cluster of buildings facing south, parallel to the coastline. The existing sleeping cottage was connected to the main house at the corner post, and a matching guest wing on the opposite corner of the main house completes the complex.

The physical separation between the main house and the guest wings provides increased privacy and enhances cross-ventilation. Since air flow increases in the areas between buildings, the barbecue and outdoor dining areas were located at the junction of the main house and new guest wing.

Because the house was to be used primarily as a weekend retreat, ease of maintenance and

security were important issues. The owner wanted to have the option to "hose the sand out of the house when necessary." The interior finishes were selected to withstand the hose and other abuse, but also to reflect the finishes used in the original structures.

Exterior finishes were select-

ed primarily for the ability to withstand the windward environment. Treated marine-grade ply was selected for exterior siding, and all hardware is either bronze or stainless. Construction detailing was carefully considered to minimize deterioration of finishes and construction materials.

Credits

Owner/Client

Mr. & Mrs. Henry Walker

Architect

Philip K. White Associates

Structural Engineer

Englekirk and Sabol Consulting Engineers Inc.

Contractor

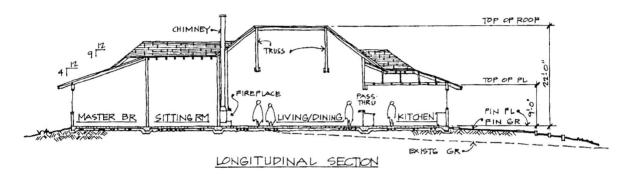
Wallace Construction

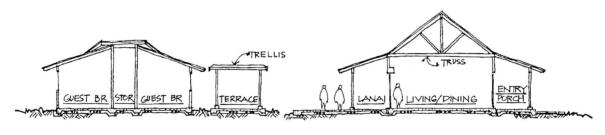
Interior Designer

Philpotts & Associates Inc.

Jury's Comments

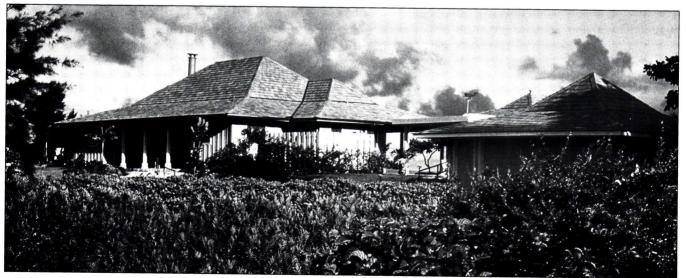
"What a Hawaiian beach house should be. Wonderful kamaaina weekend residence!"





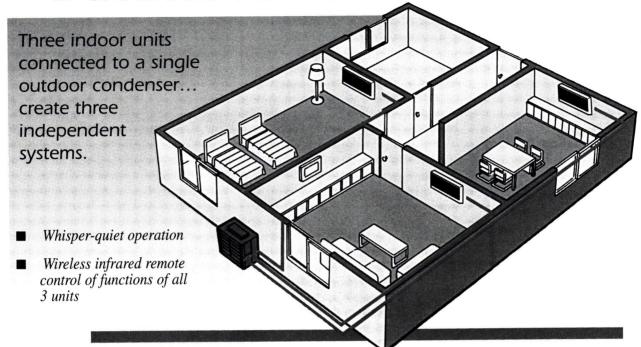
SECTION THRU GUEST WING

CROSS SECTION



The driveway and detached garage are located on the leeward side of the house with a footbridge nearby to connect the house with a grass tennis court.

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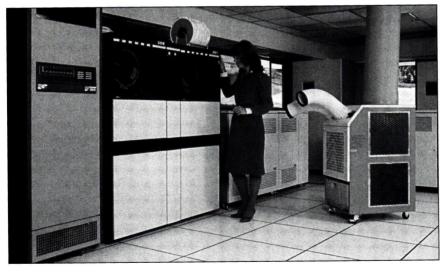


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Demonstrating Political Leadership

by Charles A. Ehrhorn, AIA President

fter months of careful discussion and review, the American Institute of Architects Hawaii State Council has adopted a new set of public policies which will set the direction of AIA/HSC's legislative agenda for the coming years. These policies replace those which were adopted by the State Council in June 1992.

Effective public policies are important to the Council as being a quick reference guide of positions covering a variety of issues. The goal of having these policies is to provide a library of information that can be easily and quickly translated into proactive legislation and testimony as required.

The Council's policy statements are broken down into two parts. The first section includes the support of the AIAHSC for legislative, community and professional actions of statewide interest which will do the following:

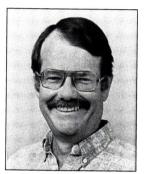
- Strengthen and enhance the natural and man-made environment.
- Promote architecture and increase public awareness of the role of architects in communities
- Demonstrate that architecture is an important contributor to the state's

In addition to strengthening the architectural profession, these policies also benefit society as a whole. An example is the work done by the Council's policy on education. The architectural profession requires a well-educated and enlightened public who can understand and appreciate good architecture.

The second part recognizes that architects' practices are a major component of Hawaii's small business environment. Therefore, the Council is supporting legislative, community and professional actions which do the following:

 Strengthen Hawaii's business climate.

- · Assist in making Hawaii businesses competitive both nationally and internationally.
- Reduce inefficient layers of government which costly, dupli-



Charles A. Ehrhorn

cative and undercut delivery of services to all Hawaii's people.

 Simplify the regulation process and maximize flexibility in regulations to enhance and challenge the creative process.

Last year AIAHSC identified four policy statements as crucial to its legislative agenda. These four included: qualifications-based architectural selection; permit streamlining; elimination of the 4 percent general excise tax on work outside the state; and fair and equal treatment under Hawaii's lien laws.

These issues will continue to be the focus of the Council's legislative agenda. Specifically in the coming year, the Council plans to work on developing legislation geared towards eliminating the 4 percent excise tax. Actions must be taken to make Hawaii internationally competitive.

During every legislative session there are numerous opportunities to become involved in the process. Many issues relate to AIAHSC's newly-adopted public policy statements. Only through participation of all AIAHSC members can the AIA become a leader in resolving issues of importance to the profession and statewide community. Architects will be making an impact on the 1996 legislative session.

New theater blends technology with art

Pearl City Cultural Center

by Gary K. Kawakami, AIA, and David L. Adams, P.E.

The auditorium interior emulates the natural forms of the islands in the abstracted geometry of steep cliffs or pali.

he Pearl City Cultural Center can be considered an example of a design responding to functional requirements and setting. In a location historically without traditional theater forms, the imagery of PCCC was drawn from other sources from which it could define itself.

A specific vernacular was developed from traditional native Hawaiian roofs and industrial forms and materials found in area sugar mills. The design also reflects the relationship of the theater to the adjacent residential community and educational setting. The auditorium interior, defined by acoustical requirements, emulates the natural forms of the islands in the abstracted geometry of steep cliffs or pali.

The project's design developed from various considerations. One was that because of the high level of rainfall in the location of the theater, there was a stated preference for sloped roof configurations for maintenance purposes. Another was that while the project was to be subject to budgetary limits, an impression of a lasting and permanent facility was desired.





The roof form for the Pearl City **Cultural Center** was derived from traditional native Hawaiian roofs.

The project was located near a residential area characterized by modest pitch roof homes. While this reinforced the preference for roof shapes, it also led to the recommendation that the facility be less institutional and more "neighborly."

The project site slopes from the northwest to the southeast approximately 12 feet, with the main roadway perpendicular to the slope at the higher end of the site. To take advantage of this natural slope the auditorium rake was designed to be parallel to the slope. Patrons enter the theater at the high end of the site, then descend downward toward stage level. This design complies with Americans with Disabilities Act guidelines and accommodates the need for as steep an auditorium rake as possible, providing better viewing conditions and enhancing the dramatic qualities of the auditorium.

To provide accessibility for the physicallychallenged, one of the higher seating levels was constructed at the same height as the entry lobby. An elevator was installed to allow access to the second floor technical control and observation level, one of the lower seating levels and the stage level.

Rigid steel frames, usually associated with industrial- or warehouse-type structures were used to fulfill the large span requirements of the 670-seat auditorium and 75-foothigh fly gallery. The circulation pattern of the theater was developed around the primary auditorium and fly gallery spaces and structures.

Budgetary considerations made the selection of metal roofing the only realistic option. Large wall areas were constructed primarily

Large wall areas, constructed primarily of steel framing with a light exterior insulation finish system, provide a monolithic appearance similar to concrete.



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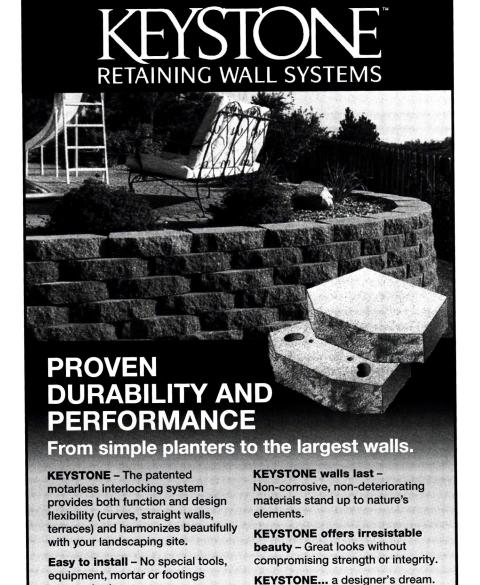
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of steel framing with a light exterior insulation finish system, which provides a monolithic appearance similar to concrete or masonry. Masonry was used on the lower walls of the perimeter of the building with a matching EIFS finish to address concerns of maintenance and durability.

The interior of the theater, primarily defined by the auditorium, was designed for multi-purpose use. It is equipped with an electronic sound system to enhance the natural acoustic quality of the room for speech and musical presentations requiring amplification and reproduction of recorded music. Performers expressed a preference for natural acoustics, using no electronic audio processing or amplification, for live orchestral or symphonic performances.

The acoustical design was achieved within the budgetary limits by use of cost-effective materials, primarily gypsum board in single or multiple layers where needed to increase wall density and the acoustic reflectance. Fabric-faced sound-absorbing panels also were installed on selected rear wall surfaces to prevent "slap back" echoes and tailor the reverberation time of the auditorium.

The large gable roof volume above the visible auditorium ceiling was finished with a double layer of gypsum board to increase acoustic reflectance, employing the roof volume as a reverberation chamber for low-frequency sound energy. This was accomplished by taking advantage of the basic auditorium ceiling configuration, which required openings for the front-of-house or beam theatrical lighting, and repeating these openings, creating an undulating, articulated ceiling. The openings allow the passage of sound into the reverberant upper volume above the visual ceiling.

The relatively long, low-frequency reverberation time of this upper volume sustains the low-frequency sound energy which then passes back through the visual ceiling to

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the audience. This late-arriving. low-frequency sound energy endows a rich, full quality to musical presentations. Also to enhance the structure's acoustical quality, specific non-parallel side reflective walls were developed as a series of cascading angled side wall planes.

The state of Hawaii initiated design work for the PCCC in 1990: construction began in November 1992, with the first phase being completed in September 1994. An additional phase of the PCCC, now under construction, will include theater support and community-use facilities.

- Gary K. Kawakami, AIA, is principal of Architecture Plus Inc. and was principalin-charge of the Pearl City Cultural Center. Architecture Plus Inc. provides architectural consulting services for institutional, commercial and residential projects.
- → David L. Adams, P.E., is principal of D. L. Adams Associates Inc. and is a consultant in acoustics and performing arts technologies for theater projects across the United States and abroad.

Pearl City Cultural Center Project Team

Client

State of Hawaii

Architect

Architecture Plus Inc.

Principal

Gary K. Kawakami, AIA

Project Architect

Brian Funai

Project members

Francis Camacho Lyle Asaoka Melanie Amba

Theater/ Acoustical Consultant

D. L. Adams Associates Inc.

Civil Engineer

Hida Okamoto & Associates Inc.

Structural Engineer

Shigemura, Lau, Sakanashi, Higuchi & Associates

Mechanical Engineer

Mechanical Engineers of Hawaii

Electrical Engineer

Bennett Engineers Inc.

Landscape Architect

Brownlie & Lee

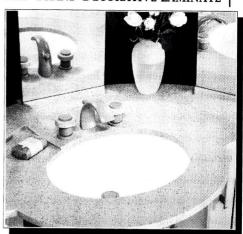
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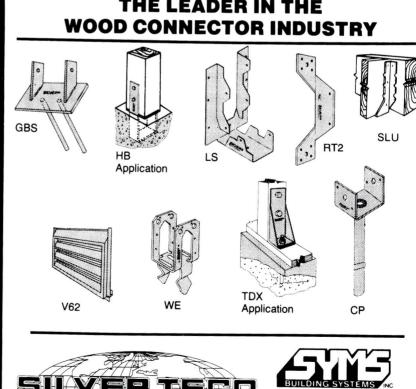
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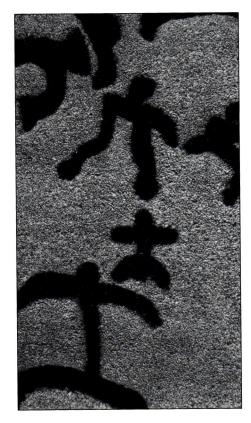
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Decorative motifs preserve Campbell history

James Campbell Building

by Makenna Perkins



The petroglyphs used in the building's carpet represent the importance of ohana.

apolei is steadily taking root on the Ewa Plainreplacing sugar cane with new housing, commercial buildings, retail centers, schools parks. To remind residents and visitors of the area's agricultural roots and heritage, distinctive design elements have been incorporated into the James Campbell Building, headquarters of The Estate of James Campbell.

These design ments symbolize important chapters in the life of James Campbell, beginning with his success growing sugar. Sugar was the basis of Camp-

bell's fortune. In 1860, he and his partner established the Pioneer Sugar Mill in Lahaina. Proceeds from the venture enabled Campbell to acquire large parcels of land on Maui and on Oahu. To recall the significance of sugar, a cane motif appears in lanai railings, elevator doors and signage throughout the building.

Water was another Campbell legacy. In 1879, James Campbell commissioned the drilling of Hawaii's first artesian well at his Ewa ranch. This made it possible to irrigate the once-dry Ewa Plain and cultivate sugar. Expressed as a wave motif, the water element is incorporated into the elevator doors, exterior walls, upholstery and even appears carved in accent tables in the building's first floor lobby.

The concept of *ohana* (family) also figured heavily in the design of the Campbell Building. In addition to being a spirited entrepreneur, Campbell was a devoted family man, married to Abigail Kuaihelani Maipinepine. It was his wife's Hawaiian roots, coupled with his respect for her family history, that provided the rationale for the stylized Hawaiian hale (hut) at the center of the second floor reception area and the symbols of ohana in the petroglyph carpet.

The hale is constructed of Pommele Makore and figured Anigre woods stained a rich red color, reminiscent of the fertile soil in Ewa. The hut is set upon 20-foot high, kamaaina-style, white, stucco columns which create a 40-foot atrium space. The wood flooring, which resembles a ship's wood decking, was influenced by James Campbell's service as a ship's carpenter. The dark rich color was inspired by the wood floors at Iolani Palace, a reminder of Abigail's alii (royal) standing.

The stairs and lanai balustrade were kept simple and very much in the same style as the early missionary houses around the Hawaiian Islands. The black petroglyphs on the hale's red carpet represent the ohana. The carpet was specially designed by project interior designers Ferraro Choi and Associates. Perhaps more than any other part of the building, this area expresses respect for the traditions of the past—it is a graceful tribute to Abigail's nurturing influence and James' strength and foresight.

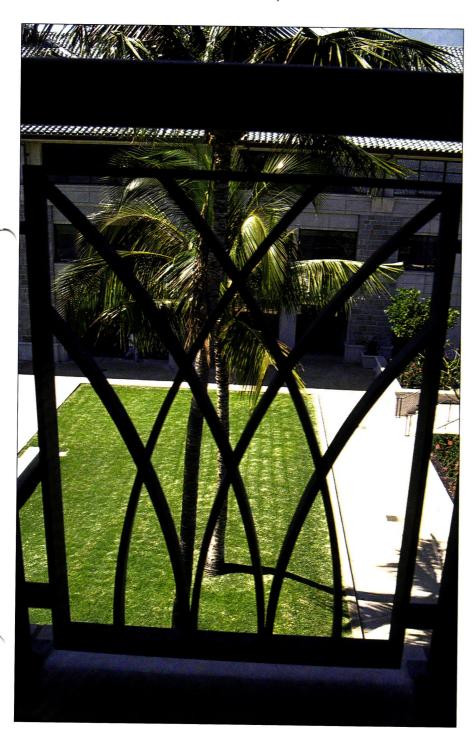
The guest chair fabric was designed by Laura Guido-Clark for Carnegie, an international textile firm, which was sent a series of traditional petroglyphs and asked to use family groupings as a theme for general office seating fabric. Guido-Clark proposed a series of linear bands alternating the wave motif

and the petroglyph motif in colors suggesting shimmering ocean waters.

The bands within the textile represent the layers of family with Hawaiian roots that have grown through the years. The textile was reviewed by Bishop Museum curators and native Hawaiians to insure no kapu (taboos) were broken, or indiscretions unknowingly committed.

Throughout the building, spaces were designed to be simple, elegant and non-pretentious, reflecting on the past while looking forward. The design recalls both the Scottish influence of James and the Hawaiian roots of Abigail, all the while creating a state-of-the-art office for the Estate family of employees.

→ The history of the symbols used throughout the James Campbell Building is part of the information given to visitors who participate in a tour of the building. Makenna Perkins is manager of marketing and public relations for The Estate of James Campbell.





To recall the significance of sugar, a cane motif appears in lanai railings, left, and building signage, above.

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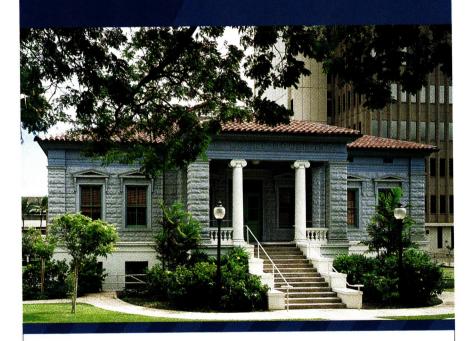
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