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Makaha Resort; photo by  
Peck, Sims, Mueller Inc.
Whether you are a practicing architect with a full office, a consultant with family and clients to satisfy, or a retiree with only health and taxes to concern you, we should all take note as to whether we are accomplishing our respective goals for the year. This Hawaii Architect issue is devoted to one of our primary goals for 1980; the HS/AIA fifth annual State Convention. This is our 54th year as an organized architectural profession in Hawaii. We are certainly very proud of the respect and the image that has been developed over these years, as witnessed by many beautiful buildings, parks and other facilities that have been planned and designed by our colleagues.

Although we have not had the member participation in our monthly meetings to the extent desired so far this year, we are hoping that our state convention theme, "Financial Management," will lure a large representation to the Makaha Resort for this year's annual meeting, November 15 and 16.

As you will see by the detailed program printed here-in, the annual business meeting, per se, will be held on Saturday morning, November 15. All HS/AIA members are invited to this meeting to participate in the election of officers for 1981, resolutions, and bylaws changes. There will be no charge for this portion of the convention program.

Many members (and non-AIA architects) ask, "What does the AIA do to help the local architect?" We are extremely fortunate to present Robert Lawrence, FAIA, national president-elect for 1981, as a speaker at the convention. His presence is of dual advantage to us at this time. First, as a very active national AIA secretary for the past two years he has experienced many of the problems which confront the membership. He will attempt to answer the apparently continuing question, "What does the AIA do for me?"

Second, he will be president in 1982 when Hawaii will host the national AIA convention. This early lead time for our personal coordination in Hawaii will be of tremendous assistance to our overall preparations for the convention being planned for an attendance of 4,000-5,000.

It is of utmost importance that we have all of our reservations and arrangements settled as soon in advance as possible—but no later than November 7—to assure that all of us who can attend will be properly registered. Please call the AIA office if you have not sent in the tear-off portion of the state convention flier.

And, above all, let's have some sociability and family fun at Makaha as well as the professional knowledge we will certainly gain through the seminar and workshops.

Makaha Resort
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HS/AIA 1980 Convention
Schedule of Events

Makaha Resort
November 15 & 16, 1980

SCHEDULE OF EVENTS
SATURDAY, NOVEMBER 15

7:30 a.m. Convention Registration—Makaha Terrace Room
(Hotel registration at front desk before noon, please)

8:30 a.m. Welcome—Jack C. Lipman, President HS/AIA

8:45 a.m. Wage & Salary Report—A.E. Werolin,
Case & Co., Management Consultants, San Francisco

9:45 a.m. HS/AIA Annual Meeting—Makaha Terrace Room
Resolutions & Bylaws changes
Election of Officers and Directors

11:45 a.m. Break—Move from Makaha Terrace Room to Kaala Room

Noon Luncheon—Kaala Room.
Subject: New Techniques of Tax Deferral

1:30 p.m. Workshop—Makaha Terrace Room
Subject: Financial Management
Leader: A.E. Werolin
There will be a break during this workshop.

5:30 p.m. Break
6:15 p.m. No-Host Cocktails—Makaha Terrace

7:30 p.m. Banquet—Makaha Terrace Room
Keynote Speaker: Robert M. Lawrence, FAIA, First Vice President, the American Institute of Architects. Mr. Lawrence will be President of the Institute of 1982. His subject will be "Architecture in the 80's." Aloha attire.

9:30 p.m. Star-Gazing and No-Host Nightcaps
Makaha Terrace
Relax in the starlight on this beautiful lanai.

10:30 p.m. Saturday Program All Pau.

SUNDAY, NOVEMBER 16

6:00 a.m.— Breakfast at your leisure in the coffee shop.

11:00 a.m. —Start Tournaments
Those playing golf, tennis, or volleyball, please check with Leland O'Kea, Sports Coordinator for starting times.

9:30 a.m. Heiau—Petroglyph Trip
Please assemble outside Lobby for this trip to see these interesting bits of Hawaii's past.

12:00 Noon Check-Out Time For Those Not Playing In Tournaments.
Spectators check with Front Desk for courtesy rooms.

5:00 p.m. Check-Out Time For Those Not Spending Sunday Night At Makaha.

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ROBERT M. LAWRENCE, FAIA

Robert M. Lawrence, FAIA, is a principal in the fifteen-member firm of Noftsger, Lawrence, Lawrence & Flesher, Oklahoma City, and is the national AIA president-elect for 1981. He holds bachelor degrees in architecture and architectural engineering from Oklahoma State University. He is also a registered engineer.

Currently serving his second term as secretary of the Institute, Lawrence was a member of the board as AIA director from the Central States Region and served as chairman of the 1976-77 Ethics Task Force, 1976 chairman of the Commission on Professional Practice, and 1976 chairman of the board of PSAE Inc.

Lawrence, a past president of the Oklahoma Chapter and the Oklahoma Council/AIA, was formerly involved on the national level as chairman of the AIA Construction Management Committee, chairman of the AIA/AGC Liaison Commission, and member of the national Committee on Office Practice.

Lawrence has served as president and board member of several organizations including the Kiwanis Club of Oklahoma, Traveler's Aid Society, Baptist Laymen Corporation, and Oklahoma City Beautiful, and as a member of the Chamber of Commerce.

ALF E. WEROLIN, CMC

As a principal with the San Francisco office of Case & Company, an international management consulting firm, Alf Werolin has, over the past twelve years, directed much of his professional time to the problems confronting the architect in the areas of financial management, compensation methods, salary and wage administration, and personnel relations practices.

Along with co-authoring The Economics of Architectural Practice, Profit Planning in Architectural Practice, and Methods of Compensation for Architectural Services, published by The American Institute of Architects, he has participated in numerous profit planning seminars and financial management workshops throughout the country for AIA chapters.

Werolin is a graduate engineer and has a degree in business administration. He is a certified management consultant as elected by the Institute of Management Consultants.

ROGER W. FONSECA, ESQ.

Roger W. Fonseca, Esq., is a partner in the law firm of Torkildson, Katz, Jossem & Loden, concentrating in the areas of corporate taxation and pension and profit sharing.

Fonseca received his J.D. from Yale Law School in 1973, where he was Note and Comment Editor of the Yale Law Journal. He earned his undergraduate degree summa cum laude from Occidental College in 1970.

Fonseca is a member of the American Business Association Section on Taxation and the Profit-Sharing Council of America, and has lectured on tax and business law for the University of Hawaii adult education program.
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Only the piercing cry of a wild peacock breaks the eerie silence at Kane'aki, a massive stone temple site situated in the upper Makaha Valley. Dense vegetation surrounds the heiau today, hiding from view other vestiges of ancient Hawaiian life in Makaha. Only two centuries ago, the scene at Kane'aki was strikingly different, for this heiau reverberated with life—and death. Kane'aki was then the religious and political centerpiece of Makaha. A temple of the luakini class, dedicated to Ku, the state god of war, Kane'aki was the scene of impressive rituals, including human sacrifice, which assured the ruling chiefs of continued supernatural support from Ku and the other deities.

Standing upon the upper stone-paved courtyard of the heiau, the high chief looked out upon the fertile expanse of his valley realm, then dotted with the thatched huts of field shelters set among productive plots of sweet potatoes, yams, sugar cane, and gourds. Turning his gaze mauka, into the narrow upper valley, the ali'i could make out the glistering reflections of ponds among the beds of taro, irrigated by water from Makaha Stream. Such was Makaha in the closing years of the eighteenth century.

Owing to extensive archaeological studies carried out in Makaha from 1968 to 1970, we know more about the valley’s prehistory than we do for most other parts of O‘ahu. In 1968, Makaha was scheduled for major resort and condominium development by its owners, Capital Investment Co., headed by Chinn Ho and Dean Ho. Sensing that the valley’s past should be recorded for posterity, these men were instrumental in founding the Makaha Historical Society, which in turn contracted with the Bernice P. Bishop Museum for a thorough archaeological and historical study of the valley. The research at Makaha was unique in that a major land developer—under no force of legislation—not only agreed to, but also actively encouraged archaeological

Continued on Page 12
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studies of the area. Such an enlightened outlook is not often encountered, even a decade later.

The Makaha Valley Historical Project was fortunate to have as its director Professor Roger Green, one of the foremost archaeologists working in Polynesia. Now holder of the chair in prehistory at the University of Auckland, New Zealand, Green in 1968 had recently joined the staff of the Bishop Museum.

With field experience in Tahiti, Samoa, and New Zealand, Green brought a new perspective to Hawaiian archaeology, and his participation in the Makaha project was a leading force in helping to reshape the direction of Hawaiian archaeological research in the 1970s.

Green actively involved a number of younger scholars in his program, and with his training and encouragement some of us—including Dr. Rob Hommon, Dr. Paul Rosenfield, and this author—have gone on to direct our own programs in Hawaiian archaeology.

Up until the mid-1960s research in Hawaiian archaeology had stressed either the larger, more impressive stone structures (such as heiaus and fishponds), or artifact-rich habitation sites, especially rock shelters. While important, an over-emphasis on these kinds of sites had led to an unbalanced picture of ancient Hawaiian life.

In Makaha, Green stressed a holistic approach to archaeology, in which the research team would give equal consideration not only to the larger sites, but to such non-descript remains as ancient garden walls, field shelters, terraces, and all of the other sites that—as a whole—give us a more complete picture of prehistoric life.

The aim was to reconstruct, through archaeological findings, the relationships between the ancient inhabi-
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Makaha's Past

Continued from Page 12

tants of Makaha and their total environment.

The picture that emerged after two years of intensive field research is a fascinating one—a story of human ingenuity in designing a technological and economic system capable of supporting a sizable population in relatively marginal terrain. It is a story of social and political change, of the expansion of a chiefly hierarchy that came to dominate the common people who farmed the valley slope. And finally, it is a story of the decline of a vibrant Polynesian society in the face of Western influence.

In the short space here, we can only touch upon a few of the highlights of Makaha's past, from its settlement about A.D. 1100 to the present. For the intellectually curious, the detailed results of the archaeological research have been published in five volumes by the B.P. Bishop Museum.

The earliest Polynesian settlers to colonize Hawai'i, about A.D. 500, did not choose Makaha or any of the other dry, leeward areas as habitation sites. Rather they chose to settle in windward areas—like Kāneʻohe on Oʻahu or Halawa on Molokaʻi—where there was ample rainfall to support their vital crops of taro, breadfruit, and other plants brought with them on their long voyages.

By about A.D. 1100, however, these ancestral colonizers had given rise to a sizable population of descendants, numbering perhaps 50,000 to 75,000 persons throughout the Islands. The desirable windward valleys had become crowded, and with population still increasing, small groups began to settle permanently on the drier, leeward coasts. It was about this time that Makaha was first settled.

*Of particular note is the summary report by Roger Green, Makaha Before 1880 A.D., Pacific Anthropological Records No. 31. Available from Bishop Museum, $7.
Life in an arid, leeward area like Makaha required new technological developments, especially for agricultural production. Although the leeward fishing grounds were good, the settlers of Makaha needed to adapt their agricultural techniques to the lower, seasonal rainfall and rocky sites of the valley. The archaeological evidence indicates that they were very successful, and that by the fifteenth to sixteenth centuries A.D., the broad lower slopes of Makaha had been converted to a vast dryland agricultural system.

This system is manifested today by thousands of stone mounds, low walls, terraces, and water-diversion structures that demarcate the ancient garden plots. Rather than depend upon taro, which needs a great deal of water, the Makaha farmers concentrated on the harder sweet potato and yams. Small gullies that carry water during and after rains were dammed, and their flow diverted to irrigate the stony yet fertile slopes.

Dispersed among these garden plots are small stone structures, usually in the shape of a "C" or an "L". When excavated, these structures were found to contain stone-lined fireplaces, and sometimes artifacts such as stone adzes or grindstones. Formerly covered with thatched roofs, these structures were thus the temporary shelters occupied by the dryland farmers during their seasonal cultivation period. Radiocarbon dates from charcoal contained in the ancient fireplaces allow us to date this agricultural system to the period from A.D. 1300 to 1700.

Having managed to create a viable economic system in leeward Makaha, the Hawaiian population there—as elsewhere along the Wai'anae coast—continued to grow. As population increased, and the agricultural system was expanded and intensified, so the need for a political hierarchy to control production increased too. Likewise, the expanded population began to engage in war more frequently with their neighbors, and chiefs played an important role here in organizing and supporting armies of warriors. Thus, the status and power of ali'i grew steadily over the several centuries after Makaha—Continued on Page 24
Wailea has already been recognized by AIA (Celebration of Architecture/1979 Award) for "initiation of an idea, for getting the money, for hiring good architects, for leadership from which something of quality emerges." HS/AIA has also given awards to individual projects within the development: Wailea Town Center/’78, Wailea Tennis Center/’75, Wailea Golf Clubhouse/’73.

The developer has made greater than usual effort to plan and produce a community of exceptionally high standards which will benefit both the planned development and the community at large. Benefits derived by the Maui community as well as economic. Comprehensive planning, standards of excellence, fiscal strength, community consciousness, and control measures have resulted in buildings of superior quality, large open spaces, complete landscaping, preservation of historic sites, improvement of beach accesses, and provision of a variety of recreational and other community facilities. Most importantly, the developer has put into effect the concept of integrating residential and resort communities to the enrichment of both, from cross-cultural exchange and mutual accessibility to improvements and facilities all too frequently available only to one sector or the other.

GENERAL DESCRIPTION

Wailea is a 1,400-acre planned residential resort community on the western shore of East Maui at the base of Haleakala Crater. Wailea is planned to be a community integrating the short-term resort visitor, the long-term resort visitor and the permanent resident. All improvements are available to visitors, Wailea property owners, and residents outside Wailea. It is intended that Wailea develop into a community of considerable diversity offering a wide range of services attractive to both visitors and permanent residents.

SITE

Topography varies from shoreline to an approximate 300-foot elevation. The site is crossed by ten major drainage courses carrying water mauka to respective outlets at the shoreline. Length of the site is 5,600 yards (3.18 miles); average width from mauka to makai boundaries is 1,600 yards (.90 miles); area is 1,456 acres. Vegetation consists primarily of kiawe trees, haole koa, undergrowth, indigenous grasses, and beach morning glory.

PLANS AND PROGRESS:

Land area developed to date (exclusive of roads and improvements) is approximately 520 acres, with approximately 936 acres remaining to be developed over the next 15 to 20 years. Completed, now, are three condominium villages, two hotels, two golf courses, eleven tennis courts, a shopping complex, and single family dwellings. Cost to date is approximately $200 million.

Plans call for the following improvements:
The award committee recommended the master plan for the Wailea Resort area for this year's Community Enrichment Award because of its outstandingly diverse, yet unified architectural and landscape architectural treatments, its sensitive siting and the respectful enhancement of the natural environment of the shoreline leading to Makena. It commented especially favorably on its approach on the mauka side of the development, bypassing the heavily built-up areas at Kihei and on the entrance road at the shortest distance from Town Center and the Inter-Continental Hotel, while revealing the most beautiful panoramic vistas.

Five public beach accesses
Master-planned beach front pathway system
Sidewalk system servicing major roads in the project
Major access roads within all subdivisions and condominiums
Landscaped parking lots for all facilities
Street tree plans for all major roads and arterials
Underground utilities accessing all developed and to-be-developed areas consisting of water, sewer, electric, telephone, cable T.V.
Street and pathway lighting in all public areas
Lush roadside landscaping

PROJECT STATUS DETAIL

<table>
<thead>
<tr>
<th>Project Location</th>
<th>Completion Date</th>
<th>Number of Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ekahi Village I</td>
<td>1975</td>
<td></td>
</tr>
<tr>
<td>Ekahi Village II</td>
<td>1976</td>
<td></td>
</tr>
<tr>
<td>Ekahi Village III</td>
<td>1977</td>
<td>294</td>
</tr>
<tr>
<td>Fairway Homesides I</td>
<td>1975</td>
<td>31 lots</td>
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<tr>
<td>Elua Village 1A</td>
<td>1976</td>
<td>86</td>
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<td>Elua Village 1B</td>
<td>1978</td>
<td></td>
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<tr>
<td>Ekolu Village</td>
<td>1979</td>
<td>148</td>
</tr>
<tr>
<td>Elua Village Phase II</td>
<td>1980</td>
<td>66</td>
</tr>
</tbody>
</table>

RECREATIONAL FACILITIES

- Blue Gold Course
- Wailea Steakhouse
- Set Point Restaurant
- Tennis Center (11 courts)
- Town Center Phase I
- Orange Gold Course

NEW FACILITIES/PROJECTS

- Park Site 68
- Wailea Kai Lots
- Wailea Alanui Village
- Tennis Center Expansion
- Fairway Homesites II
- Elim
- Hilton Hotel
- Town Center Expansion

DEVELOPER:

- Wailea Development Company
- 822 Bishop Street
- Honolulu, Hawaii 96813
- Wendell F. Brooks, Jr., General Manager

EDITOR'S NOTE: The Wailea Elua condominium village by Ossipoff, Snyder, Rowland & Goetz also received an HS/AIA Award for Design Excellence. Wendell F. Brooks subsequently left Wailea Development Co. to form Chaney, Brooks & Company.
In response to the architect who refers to himself as “one of the last of the dinosaurs” and his commentary on specification consultants, I find it hard to believe that anyone could be that out of touch with what is happening in the construction industry. Perhaps the projects he is associated with only utilize the tried and true building materials such as concrete, stone, wood, metal, and bituminous waterproofing materials. If so, his point of view is appropriate.

In the realistic world, however, additional new materials are constantly being added to those tried and true materials. These new materials often provide answers to long unsolved problems in the building profession, are usually more economical, and provide greater freedom in building design.

These materials often do not have a long enough track record to permit specifications to be written from the actual experience of the spec writer (or the architect). These materials require reliance on the manufacturer’s data to provide the necessary information to write a comprehensive specification on that material. Too often an architect, who is usually not an experienced spec writer, will simply take his last spec, find some similar material which performs a similar function, and cut and paste that section to make it look like it may work. This is a very dangerous practice.

First, the previous spec may be archaic due to its having been cut and pasted through several generations of specifications. Second, the selected similar material usually will not be in any way similar in composition or installation requirements to the new material even though they perform similar functions. Third, the new material will usually require a specific method of preparation, installation, testing, and/or maintenance to enable the material to perform properly.

To write a comprehensive specification for that specific material then requires time for research and for careful preparation of the specification. With the great numbers of different materials which comprise a construction project today, a large amount of time is required for research and preparation of the specifications. A principal or one of the key people involved in the given project usually is so involved in the design of the building aesthetics or in the production of the drawings that the specifications are almost an afterthought. This usually leaves little time for their preparation, much less research of materials.

A much better approach to the preparation of the specifications is to hire a specifications writing expert, either as an in-house employee or as a consultant. The specifications writer has the time to properly research the materials and put together a comprehensive specification for the project. Involve the spec writer in the project during the early design phase and keep him informed of the developments and design decisions.

Spec writers are not mind readers and specs don’t magically just appear when the drawings are printed. It requires the architect, who is after all responsible for these documents, to inform the spec writer of what is required for a project and to maintain an open line of communication throughout the project. If an architect has had poor success with specifications consultants, it is often not the fault of the consultant but rather the fault of the architect who failed to communicate.

With regard to the CSI’s program of Certified Construction Specifiers (CCS), it is not intended by CSI to be “an equivalency for an architect.” It is intended only as a means by which the competency of a person in the preparation of comprehensive construction specifications can be maintained and improved. To maintain this certification, a specifier must continue in the “professional development in the art and science of preparing written construction documents” by participation in the supervision and/or preparation of construction documents and by participation in continuing education programs to improve his skills. It is encouraging that architects are considering requiring continuing education and improvement of skills to maintain their certification.

GEORGE PARRISH, CSI, CCS
Chapman Cobeen Desai Sakata, Inc. Architects

“Letter to the Editors” by Elmer E. Botsai, FAIA, Hawaii Architect, September, 1980
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PER S. SCHJELD SOE; Associate Member; Ossipoff, Snyder, Rowland & Goetz Architects; Diploma Arch. NTH, Norwegian Institute of Technology. Hobbies: sailing, water skiing, diving, skiing, jogging, basketball, volleyball.

CHARLES J. WYSE; AIA Member; Architects Hawaii, Ltd.; B.F.A. University of Hawaii. Hobbies: surfing, skin diving, volleyball, wood working, stained glass.
New Members


RICHARD T. YONESHIGE; Associate Member; Meyers Detweiler & Associates; B. Arch., University of Hawaii. Spouse: Molly T. Children: Dean, 7 months.

HUGH J. FARRINGTON; AIA Member; B.A. and B. Arch., Rhode Island School of Design. Spouse: Deborah.

LEE M. COLEMAN; Student Affiliate; University of Hawaii; part-time employee, Lou Fulton, AIA. Hobbies: surfing, music, motocross, skiing, sailing.

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No—it's not Zebra Country . . . Gail Country Series of beautiful 4"x8" ceramic glazed tile in the #4—"Kentucky" coloration. This tile has the abrasive (non-slip) surface although it comes in smooth as well. This installation is in the top floor new addition of Liberty House's Ala Moana store. RYA Retail Design, Inc., the interior designers, tile installation by Wichert Tile, Ltd.

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The Pyramid won Most Beautiful Honors in the Student Division.

Bobsled won Most Original award in the Student Division.

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Eggs by Arch 301-3.
Gene Sontag's relaxin' home . . .

CERAMIC TILE ALL AROUND OPEN POOL COURTYARD DOES IT . . . Result: Carefree, easy living.

One-time desert resident and bachelor Gene Sontag is a hard working business man who prefers to leave his cares at his Liquor & Wine Imports establishment and his Sears outlet when working day is done. He believes, too, in easy living. Gene gets just that in the home Architect Don Chapman created for him near the shore in Kailua. And Greg Boyer, landscape designer/contractor, made notable contributions. The home is really beautiful—also carefree . . .

- Ceramic Tile surrounds the big courtyard pool, warmed by the sun and screened over to keep out insects while dispersing rain. Ceramic Tile, as always, is easiest of floors to keep clean. Gene Sontag does it with hose and squeegee. His Sonntag method cleans up things in 20 minutes . . .

- Landscape Architect Boyer has used well fertilized soil in planter boxes and hanging baskets to provide plentiful greenery. Plantings are easy care, too, with many including the hanging baskets—watered automatically through small tubes, part of a timed system. Outside plants especially were selected from among varieties that do well even in salt seaside air.

- Installation of Ceramic Tile was by Hawaii craftsmen employed by a contractor member of the Hawaii Ceramic Tile, Marble & Terrazzo Industry Promotion Program—the Gene Sontag home with its beautiful and easy care Ceramic Tile is a demonstration of two notable reasons why Ceramic Tile use in Hawaii continues to grow and grow.

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Ceramic Tile, Marble & Terrazzo Belong in Hawaii
Makaha's Past

Continued from Page 15

ha's first settlement.
This development of the chiefly class is reflected in Makaha's religious sites or heiau, and especially in the temple of Kane'aki. Heiau were constructed at the behest of a chief, and it was on the heiau platform that the chief performed the sacred rituals assuring him of supernatural support. There were many classes of heiau in ancient Hawai'i, and the largest and most important of these were the luakini, temples of human sacrifice that could be built by and for only the highest chiefs of the land. Constructed of hundreds of thousands of stones, these massive platforms required the work of many laborers, and only a great chief could mobilize such a work force.
Kane'aki in the late eighteenth century was such a luakini temple. Excavations into the stone platform, however, revealed that the temple had been constructed in six stages, over a period of about 275 years. It did not begin as a massive luakini, but rather as a small terraced heiau of the type called hale-o-Lono, dedicated to Lono, the god of agriculture. As the chiefs of Makaha gained in power, they added to the temple platform, expanding its size. At the sixth and final stage of construction, Kane'aki was converted to a luakini, its rituals now those of Ku—god of war. This final phase resulted from the conquest of Makaha by a powerful chief of the realm—an ali'i 'ai moku ("chief who ate the district"). The stones are mute on this point, but there is no doubt that Makaha had come fully under the sway of a powerful lord.
The last two hundred years of Makaha's story mirrors those important events that shaped the modern history of Hawai'i. By the early 1800s, disease and the attraction of port towns such as Honolulu led to the depopulation of rural hinterlands, including Makaha. During
the Great Mahele of 1848, the Lands of Makaha were granted to the high chief Paki. Upon Paki’s death in 1855, the valley was sold to the firm of James Robinson & Company, who engaged in ranching and coffee growing, among other ventures. By the 1880s the sugar rush was on, with plantations expanding rapidly. The Waianae Company attempted sugar growing in Makaha, but its efforts were frustrated by insufficient water. The haole planters were unable to make Makaha into the kind of productive agricultural system that it had been only a century earlier, before European contact.

Today, for most residents of Hawai’i, Makaha is associated with surfing, golfing, and resorts. But the valley still holds the archaeological remains of the Hawaiians who lived there long before the rest of the world knew of the existence of these Islands. One has only to come upon the massive wall of Kane’aki Heiau, restored in 1970, to gain some appreciation for the rich history of the Makaha Valley.
NEW PLANNING CONSULTING FIRM

Larry E. Helber and Mark B. Hastert have announced the formation of Helber, Hastert, Van Horn & Kimura Planners, a planning consulting firm in Honolulu. Principals include Helber, Hastert, Richard H. Van Horn and Glenn T. Kimura.

All four were formerly associated with the Honolulu consulting firm Belt, Collins Associates, a division of Lyon Associates, Inc.

The firm will offer a full range of physical and environmental planning services including resort master planning, urban and regional planning, site analysis and planning, Environmental Impact Statement (EIS) preparation, and assistance in government approvals.

The new firm began operations in early October from offices at 2222 Kalakaua Avenue, Suite 1507.

NEW ASSIGNMENTS AT BELT, COLLINS & ASSOCIATES

Gordon W. Bradley has been appointed general manager of the Belt, Collins & Associates division of Lyon Associates, Inc., and Thomas P. Papandrew has been named director of planning. Paul M. Hirota will continue to serve as vice president and chief engineer.

Architect Bradley joined the firm in 1978 as assistant to the president and project manager. He has worked in Hawaii since 1951 except for 1971-73, when he served as director of public works for the Trust Territory of the Pacific Islands.

Registered as both an architect and landscape architect, Papandrew has been a planner with Belt, Collins for more than ten years. He currently serves on the board of trustees of the American Society of Landscape Architects (ASLA).

MICHAEL CHU APPOINTED

Michael S. Chu has been appointed managing director for Phillips, Brandt, Reddick & Associates (Hawaii), Inc., a land planning and landscape architecture firm with offices in San Francisco, Newport Beach, and Denver. As managing director, Chu will oversee all projects for the Honolulu office.
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WHAT HAPPENED
Faced with the prospect of great monetary loss unless his project was completed sooner than originally planned, an owner-client prevailed upon the A/E firm to help him finish on time. The A/E agreed to try. By working on an accelerated schedule including considerable overtime at authorized by the owner, the design drawings and specifications were rushed to completion, bids were taken and a construction contract awarded.

Soon after construction began it was discovered that many sections of air-conditioning ductwork were not designed to be insulated. Corrections to the drawings were quickly made and a Change Order issued. However, the contractor's quotation for the additional work was considered much too high by the owner.

The contractor proceeded under protest to provide the missing insulation, but filed a claim for the extra amount he contended was due. An arbitration hearing followed and the contractor was awarded most of his claim. The owner then brought suit against the A/E to recoup his alleged loss.

Investigation by the A/E to determine the reason for the omission showed that a drafting employee had been instructed by his supervisor to erase certain dashed lines indicating exterior duct insulation and in lieu of the lines removed, to add other dashed lines symbolizing interior insulation. Because there were substantial amounts of both types of insulation required, it had been decided to use dashed line drawing symbols rather than to describe in the specifications which ducts were to have which type of insulation.

The draftsperson failed to add the interior dashed lines after removing the exterior dashed lines. Because the draftsperson had incorrectly circled the change with a colored pencil to indicate he had completed the change as instructed, the person assigned to check the drawing overlooked the omission.

RESULT
The case was tried and the court determined that most of the cost the owner incurred would have been a required expenditure in any event in order to properly insulate the ducts and obtain the required end result. However, the court did award the owner amounts to cover other costs incurred through delay and other related costs the court concluded were caused by the omission by the A/E.

LESSON LEARNED
One point seems clear: the unexpectedly accelerated schedule, to achieve added benefits for the owner, created an environment that encouraged the likelihood of an omission. Mistakes are much more likely to occur when work is done in a hurry.

This case illustrates a further point of equal or even greater importance. The quality of effort of the lowest paid worker is often just as important as that of the highest paid. A casual or "Who cares?" attitude by a trainee draftsperson can be just as damaging as a neglectful attitude by a top principal. Check and double-check methods are set up with the hope that

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Continued on Page 30
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Drafting Errors

Continued from Page 28

errors and omissions will be caught, but mistakes by a careless person may eventually slip through. Remember how important an error-free design is when you are

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