

HAWAII ARCHITECT

September 1987

The American Institute of Architects
Information Center
1735 New York Ave., NW
Washington, D.C. 20006

Computer Versatility
Office Automation

AIA LIBRARY
LIBRARIAN
1735 NEW YORK N.W.
WASHINGTON DC 20006

BULK RATE
U.S. POSTAGE
PAID
Permit No. 1023
Honolulu, Hawaii

LET'S TALK STRAIGHT.

As a design professional, you may not always have the knowledge and experience to address detailed problem areas such as concrete and masonry restoration, caulking and sealant work, waterproofing and water infiltration. To solve these problem areas, you sometimes ask for help from resources outside your office.

When you do look for help with your waterproofing and restoration headaches, look to Bonded as your source for reliable products and systems.

When it comes to waterproofing, rehabilitation, decorative and protective products for concrete, masonry and metal, you can trust and depend on our expertise and service.

For over 30 years, we have helped people like you solve problems. And we know how to zero in on your detailed trouble areas. Contact us to help solve your problems — on the first try. Why? Simply stated, Bonded products work, and Bonded people care.

Straight from the Source.

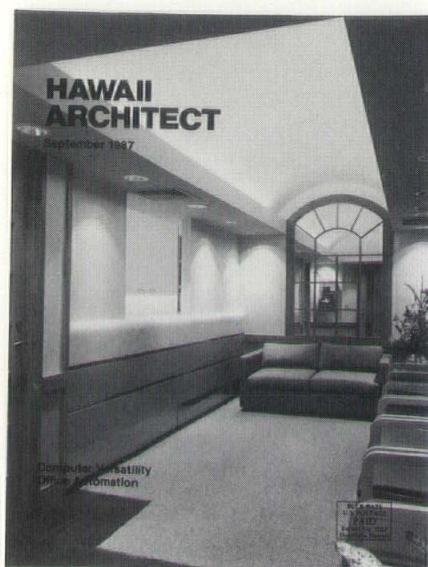


Bonded Materials Company
A Standard of Excellence.

Campbell Industrial Park 91-400 Komohana Street, Ewa Beach, Hawaii 96707 • (808) 682-4571

Kalihi Branch Outlet 251 Puuhale Road, Honolulu, Hawaii 96819 • (808) 848-2077

Guam Office Harmon Field, P.O. Box 7086, Tamuning, Guam 96917 • (671) 646-7121 • FAX 0116716465131



Cover: Creative design of the office of Randal D. Morita, D.D.S., won a 1987 Design Award for Urban Works, Inc. Augie Salbosa Photography

pmp company ltd

Publishers

1034 Kilani Ave., Ste. 108,
Wahiawa, Hawaii 96786
808-621-8200

Publisher/Executive Editor
Peggi Murchison

Managing Editor
Anita K. Painter

Production/Art Director
Cynthia Becklund

Sales Manager
Miki Riker

Office/Business Manager
Patty Guillermo

Production/Typesetting
Leonardo Henobio, Jr.
Edwina Salac
Pam Sledge

Account Executive
Mark Zanetti

Editorial Assistant
Jamie Kemp

Assistant to the Manager
Karen Brown

Copyright© PMP Company, Ltd., 1034 Kilani Avenue, Suite 108, Wahiawa, HI 96786. All rights reserved. Reproduction of the whole or any part of the contents of *Hawaii Architect* without written permission is prohibited. Postmaster: Send change of addresses to *Hawaii Architect* (ISSN 0191-83111) at 923 Nuuanu Avenue., Ste., 201, Honolulu, HI 96817.

TABLE OF CONTENTS

Volume 16, Number 9

September 1987

6 President's Message

COMPUTER VERSATILITY

- 7 Computer Modeling in Tomorrow's Office**
Changes brought by computers in today's architectural practice are a foretaste of the revolution to come
by Ted Green, Associate

- 9 Computer Aided Design and Drafting - CADD**
Successfully introducing CADD to an architectural office.
by Norman Lacayo, AIA

- 12 Computerizing for Smaller Firms**
The computer gives the small firm a means of competing against larger firms in the architectural marketplace.
by Warner G. Boone, AIA

- 20 Computers and Ideas**
Thoughtful computer application can support and enhance well-conceived architectural design.
by J. Peter Jordan, AIA, Associate Professor

HAWAII SOCIETY/AIA 1987 DESIGN AWARDS

- 16 Dental Office by Urban Works, Inc.**

NEWS

- 14 Hawaiian Architectural Arts Award to Ossipoff**

- 18 Annual Parade of Homes Gets Underway**

- 26 New Members**



Most business deals boil down to financial muscle.

You either have it or you don't.

The advantage comes from a tough business sense, as well as a strong banker with clout.

At First Interstate, you've got both. A financial expert whose analytical skills and sound judgement can create the winning edge in any business deal, a strategic partner who works with you from the start to develop solutions and opportunities to keep your profit picture rosy.

Adding strength to muscle, you also have the support of the nation's largest

multi-state banking system with over \$52 billion in assets.

With these extensive resources, First Interstate offers local businesses a wide range of services all under one roof. From innovative financing techniques to advanced cash management products. From exceptional customer service to specialized industry expertise.

Let's talk about what a strong financial network can do for your business future. Call First Interstate at 525-6820 today.



First Interstate Bank

Member FDIC



Our most sophisticated business phone system has a sizeable advantage.

SELEX is our most innovative phone system ever. It lets you choose from up to 100 advanced features for transmitting voice and data. You can forward calls. Transfer them. Or route them through the least expensive carrier. You can add or drop features as you wish. And pick up new features as they become available in the future. All with the phone system that takes up less space than this page.

You see, the equipment that makes SELEX possible stays at Hawaiian Tel.

So all you need is a jack and a phone. And since the equipment stays with us, we can monitor it 24 hours a day. And fix problems before you're ever affected. (We even have a back-up power system.)

With SELEX your initial capital outlay is low since you're not paying for a bunch of machinery. (You may need to purchase phones designed especially for SELEX, in which case financing is available.)

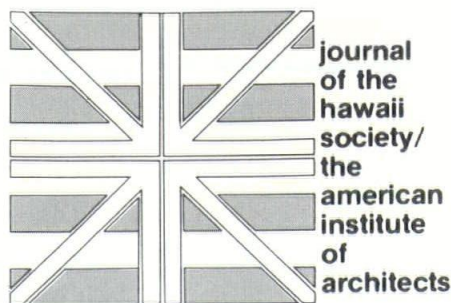
SELEX is ideal whether you have two phone lines or hundreds of them.

It's the worry-free phone system that never becomes obsolete. That doesn't require a lot of money. And certainly doesn't require a lot of space.

Find out more. Call us now at 46-S-E-L-E-X.

SELEX Business
Network

HAWAIIAN TEL **GTE**
Beyond the call



journal
of the
hawaii
society/
the
american
institute
of
architects

1987 Hawaii Society/AIA Officers

President, Evan D. Cruthers, AIA

Vice President/President Elect,
Norman G. Y. Hong, AIA

Secretary, Charles A. Ehrhorn, AIA

Treasurer, Carol S. Sakata, AIA

Directors

Kenneth F. Brown, FAIA
Daniel G. Chun, AIA
Theodore E. Garduque, AIA
Benjamin B. Lee, AIA
Spencer Leineweber, AIA
Douglas P. Luna, AIA
Ann N. Matsunami, AIA
Jeffrey Y. Nishi, AIA
Arthur M. Weber, AIA

Public Member Director

Gregory G. Y. Pai, Ph.D.

Section Directors

J. Blaise Caldeira, AIA
(Hawaii Island)
Hans Riecke, FAIA (Maui)

Associate Director

Eric G. Crispin

Hawaii Architect Committee

Michael S. Chu
Thomas Culbertson, AIA
Lee Davis, AIA
Charles A. Ehrhorn, AIA
Robert M. Fox, AIA
Jeffrey Nishi, AIA
Henry E. Reese, AIA
Alan Rowland, AIA
Patricia Shimazu, AIA

Hawaii Society/AIA

923 Nuuanu Avenue, Suite 201
Honolulu, Hawaii 96817
(808) 545-4242

Executive Vice President

P. Lee Mason

Executive Secretary

Beverly McKeague

Hawaii Architect is a monthly journal of the Hawaii Society/American Institute of Architects. Subscriptions are \$18 per year. Opinions expressed by authors do not necessarily reflect those of either the Hawaii Society/AIA or the publisher. The appearance of advertisements or new products and service information does not constitute an endorsement of the items featured.

PRESIDENT'S MESSAGE

We've Come a Long Way The Story of Our Neighbor Island Sections

by Evan D. Cruthers, President
Hawaii Society/AIA

Today, our 650 Society members are organized on every major island in our state, held together by a unity of purpose for professional growth, a commitment to taking a stand on major issues that affect our local architecture and environment, and making a difference through the contribution of our ideas and services in our island communities.

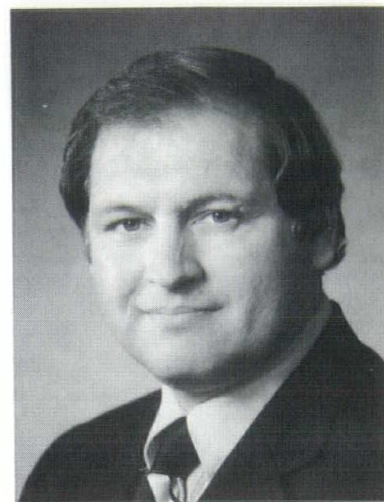
Just 10 years ago, almost 95 percent of our Society's 400 members were located on Oahu. Maui had a fledgling group, and the Big Island had individual members only.

Maui Section. During the early 1970s, six Maui architects and several planners and landscape architects formed a group called PALM (Planners, Architects, Landscape Architects of Maui), to provide a forum for design professionals on the island.

That modest beginning eventually changed forever the organization and outreach of our Society; and in November 1984, the architects on the island of Maui were officially recognized as the Maui Section of the HS/AIA.

An active force in the community, the Maui Section is headed by President Gregory Skog of Gregory L. Skog, AIA, and President-Elect Steven Heller of Maui Architectural Group. Hans-Heinrich Riecke of Riecke, Sunnland, Kono Architects is the section's representative to and member of the Society's Board of Directors, with a two-year term until 1988.

Under their leadership, the Maui Section members have engaged in many projects



Evan D. Cruthers

including public awareness displays, professional workshops and field trips, co-sponsorship of an annual sandcastle contest, hosting speakers at their monthly meetings, providing input to Maui County planning ordinances and conducting UBC amendments review.

Hawaii Island Section. In 1986, our Society members on the Big Island petitioned to become a section. The HS/AIA recommended approval to the national AIA, and in June, our Big Island members were officially recognized as the Hawaii Island Section.

Our newest section is headed by President John "Griff" Phillips of John G. Phillips, AIA-ME, and President-Elect Virginia MacDonald of Virginia Brooks MacDonald, AIA. Serving a two-year term as the section's representative and member of the Society's Board of Directors until 1988 is J. Blaise Caldeira, AIA.

Section members in Hilo and Kailua-Kona comprise over 90 percent of the island's total

(continued on page 15)

Computer Modeling in Tomorrow's Office

by Ted Green, Associate
Group 70

Changes brought by computers in today's architectural practice are merely a foretaste of the revolution to come.

Modeling of information is the chief labor of the architect, and computers are notoriously well suited to automate such labor. It is no longer unusual to see traditional drafting tasks performed electronically. We now need to discover the novel methods to practice our craft that only a computer will allow. When we do that, we will see the true revolution begin.

Say the word "model" to an architect and he is likely to think of a collection of wood or plastic

scaled to resemble a building. That model is both static and physical, providing a first class view of the roof. The scientist has a different notion. His "model" might be a computer program that simulates the deformation of a rocket part while under high acceleration. This model is dynamic, electronic and allows views of the part from all angles, inside and out. Computers can provide architects with models that are dynamic and integrated, enormously benefiting their professional practice.

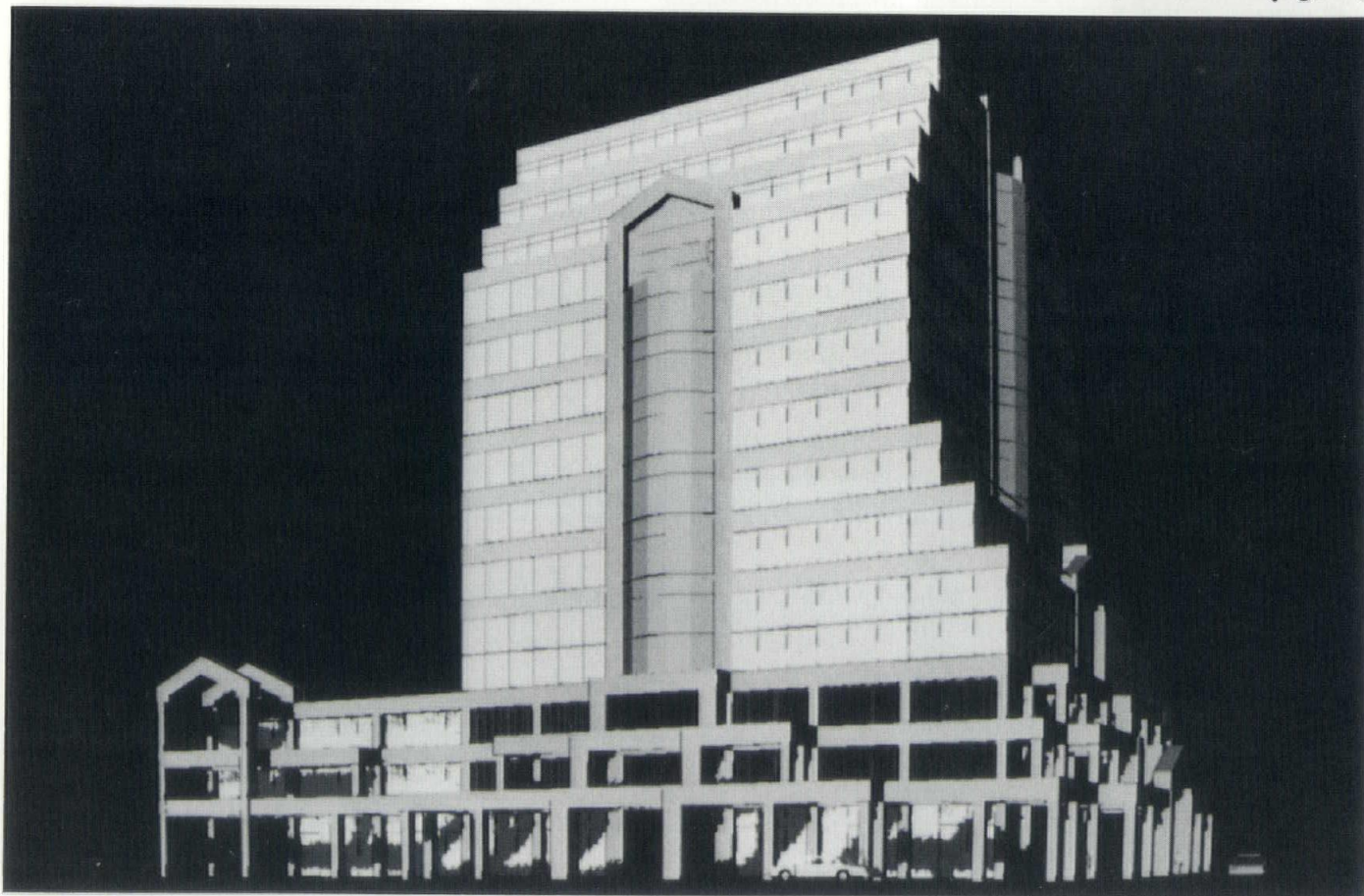
There are already a variety of models commonly used in architecture. Any one project is

likely to include:

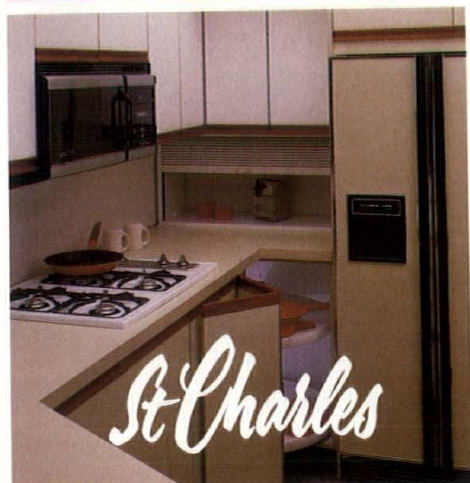
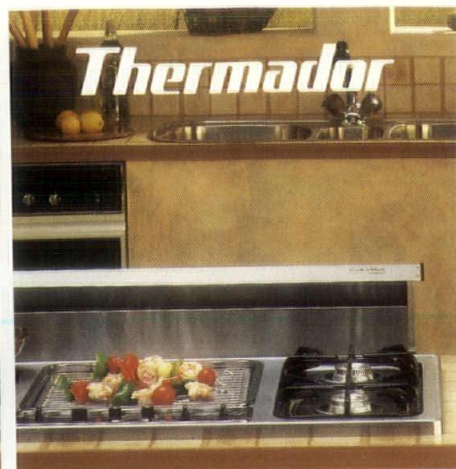
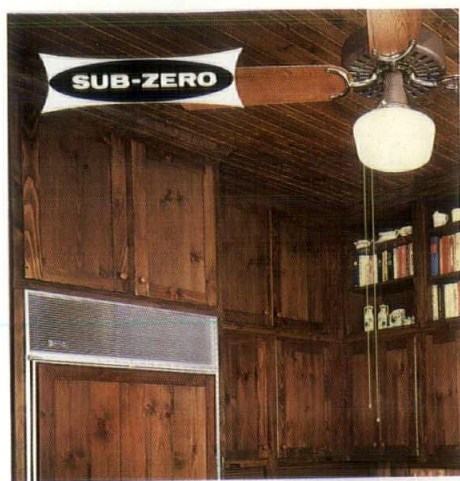
- A costing model (table or report),
- A time model illustrating scheduling,
- Plans and elevations or two-dimensional models,
- Details or models of the junction of surfaces and materials, and
- The traditional scale building model.

The unique promise of the computer is to link all these models into one — and make the interrelationship of information from one part to another automatic, transparent and blindingly fast.

(continued on page 29)



Creating three-dimensional models on a computer can result in dynamic designs such as this proposed office building in Honolulu for Hasegawa Komuten (Hawaii), Inc.



Building or remodeling...big budget or small,
if they love your kitchens they'll love your work.

Visit our showroom and select from the
22 brand names Hawaii has come to depend upon
for beauty, reliability and efficiency in the kitchen!

250 Ward Avenue • Honolulu • 521-7447

THE KITCHEN CENTER
OF HAWAII

A DIVISION OF TKC, INC. • LIC. #C4258

Computer Aided Design and Drafting - CADD

by Norman Lacayo, AIA
Lacayo Architects, Inc.

Successful automation of an architectural office is determined most importantly by the dedication put into this endeavor. Introducing CADD is a costly, time consuming and difficult process and it requires the commitment of the whole office.

Accordingly, the principal's involvement can affect whether or not the whole effort is doomed. It is important for the principal to know as much as possible in order to best determine what to support in the system. Familiarity with the computer can only aid in assessing its real use.

Learning to use CADD can be compared to the process of becoming a job captain or project architect. First, you learn to draw windows, then, doors and, gradually, you work up to drawing a whole structure.

Designing and drawing on the computer is learned as a process. It is time consuming at first, but there is a point at which you begin to think with the computer. The pencil is suddenly a tool you no longer rely on. This is not to say CADD is an extension of the pencil, but rather a new method of communicating ideas.

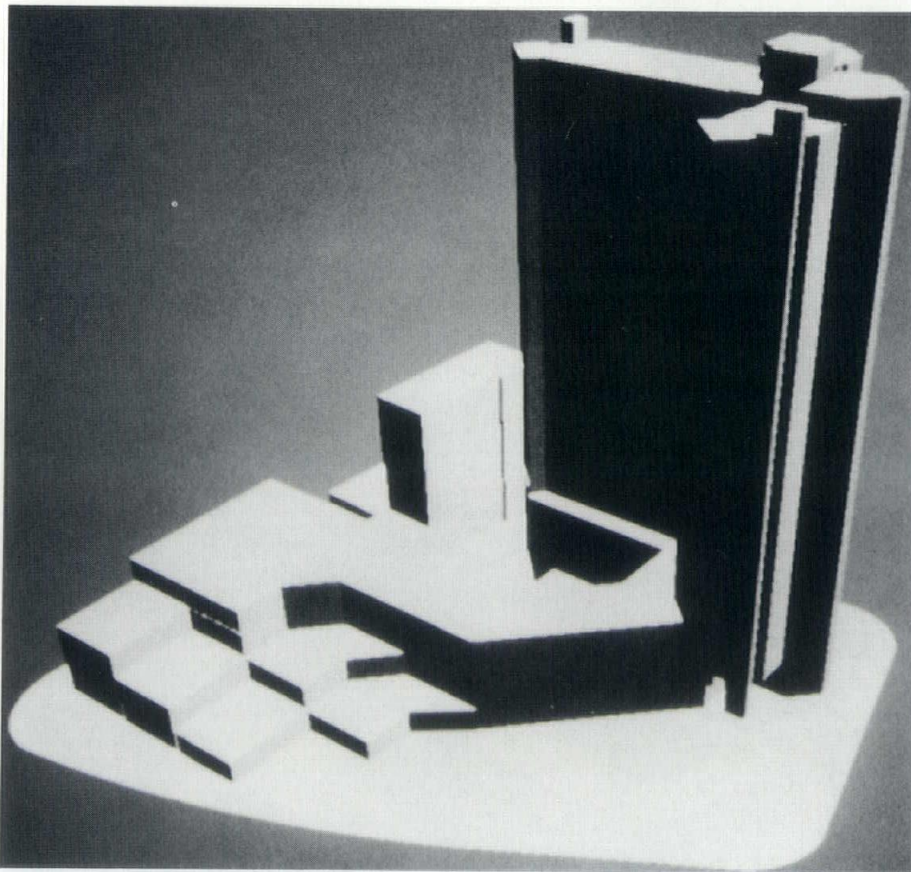
When a certain point of familiarity is reached, a breakthrough in your understanding and ability on the computer, you realize you will never return to the pencil. By comparison, the pencil becomes slow and awkward and you feel better at ease on the computer.

Ideas can be put down graphically faster and then they can be manipulated.

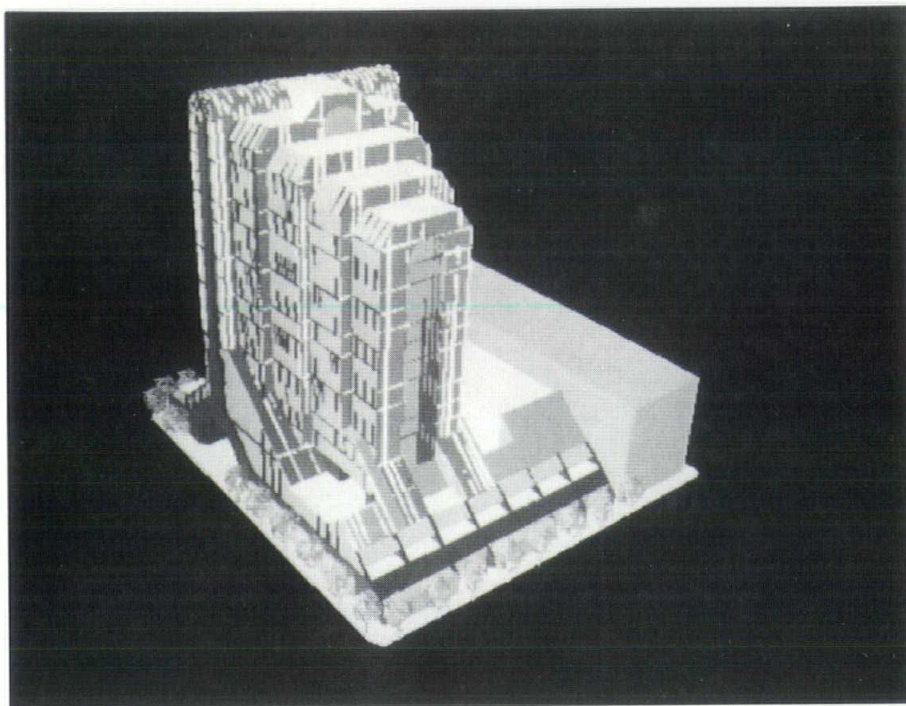
The prospect of exploration is instantly tangible. This is what I feel the main difference is between drawing by hand versus drawing by computer. It is not what is produced, but how it is produced. CADD allows a practical and economical exploration and communication of the ideas in your head before they are put down on paper.

Consequently, the benefits

spread to those you work with and those you work for. To the contractor, drawings are more legible and sometimes better organized. The information is more thoughtfully dealt with before it is committed to sheets. Clarity, to the contractor, is important in order to compute precise bids. These points are also important to consultants in that their work is affected by their understanding of base sheets. To the client, besides being able to visually experience his own ideas



This shot illustrates the massing and orientation of a proposed building in a study done for the City and County of Honolulu.



Vivid colors and 3-dimensional capabilities help to convey the design concept in this study for a proposed office building in Austin, Texas.

and those of the architect, things drawn that are repetitive in nature can be done faster, significantly lowering production costs.

My office has had its system for about three years and we are presently expanding the number of terminals. We view the CADD system in terms of advancement

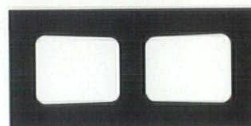
and have a general plan for the future, with a goal for each member of the office to be on a terminal.

It is this constant and total effort which I feel makes our system work. I believe it is important for principals to maintain a strong involvement in the operation of a CADD system. There are advantages in both design and production capabilities, and the support conveyed for the system to other office members can only strengthen the dedication required to succeed with such a change. **HA**

Norman Lacayo, AIA, is president of Lacayo Architects. His office is presently upgrading their Prime 2250 mini computer to a Prime 2450, increasing capacity to 260 megabytes. There will be five graphics work stations: two medium resolution Tektronics, one high resolution Tektronic and two Prime high resolution work stations.

YOUR NEED IS OUR INVENTORY

Our largest-ever stock of block gives you a wide choice PLUS fast on-site service.



TILECO, INC.

91-209 Hanua Street
Ewa Beach, Hawaii 96706
Phone 682-5737

Hawaii Manufacturers of Quality Concrete Blocks.





National Award for Interior Commercial Remodeling
Allied Builders — 1984 Contractor of the Year

ALLIED TEAMWORK sets a new gem into Diamond Head.

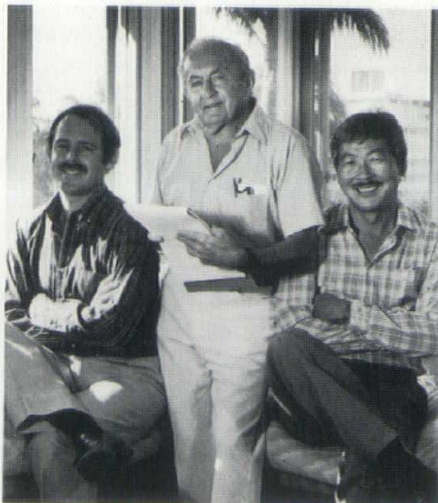
The Project: The Queen's Court

The challenge: to blend the privacy of a single-family home with the advantages of secure, maintenance-free townhouse living in an exclusive dwelling above Kapiolani Park overlooking the ocean.

The solution: The Queen's Court, a luxurious four-unit townhome. Designer Hal Whitaker teamed up with Allied Builders to make the best of a great location, creating multi-level residences that open up to outdoor views and natural ventilation from trade winds with large lanais and floor-to-ceiling sliding glass doors.

The Team:

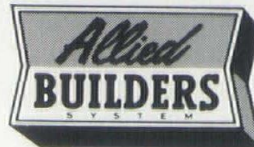
Hal Whitaker, Designer, Design Associates, Ltd.
Rex Sorenson, Owner and Project Developer
Mel Izumi, Executive Vice President,
Allied Builders System



Common walls and roofing are solidly insulated against sound. A drainage system is concealed in the roof. Security is achieved with an electronically controlled ornamental steel fence and gate system.

Inside, meticulous attention to detail is evident in the marble entryways and lanais, skylighting, custom cabinetry, oakwood floors, and built-in living room wet bars.

It takes the best teamwork and multi-faceted talent to translate into reality a designer's dream as extraordinary as the Queen's Court.

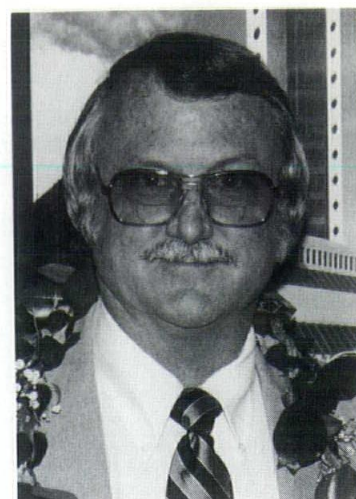


1717 Akahi St. Honolulu, Hawaii 96819
Telephone: 847-3763

Teamwork. Our motto. Our method.

Computerizing for Smaller Firms

by Warner G. Boone, AIA
Boone & Boone, Inc.



The computer has given the small architectural firm a means of competing against the large firms in the architectural marketplace. As in many facets of the business world, the computer, if used correctly, is a tool that adds speed, accuracy, flexibility and proficiency to any operation.

meg of storage capacity. A tape drive is used for backup. We have six work stations, five graphic users and one text user. All of our graphic users have 19-inch screens. I believe this larger screen is much easier to work with, and therefore increases our productivity. We also have a modem which allows us to

"... a tool that adds speed, accuracy, flexibility and proficiency to any operation."

We are a small firm that specializes in design only. Our client is a person we have worked with for over 20 years. He has developed such buildings as Waikiki Trade Center, Canterbury Place, Royal Iolani and Yacht Harbor Towers.

It takes a decision and a commitment from the top of the firm in order for a computer drafting system to be integrated into operations. The leader of the firm has to be willing to make a strong commitment and a concerted effort toward the use of machines as the total drafting solution.

I made the decision to move to a completely computerized office seven years ago. It has been seven years of progressive understanding of the computer, its software, its abilities and its limits.

Our computer hardware consists of a MicroVax II with four meg of memory and 120

output or input from any compatible computer.

For production of our own work, a high capacity Calcomp 965 plotter is used. The cost works out to approximately \$30,000 per graphic work station. This is higher than IBM PC's running Auto Cad, but we have the sophistication and the horsepower needed to tackle large jobs. We do large jobs which require large amounts of information storage making our system cost effective.

If the machines are to pay for themselves in the long term, then the savings will generally come in terms of time saved in the drafting process. The CRT screen refresh time is an important factor in gaining speed. All of our horsepower allows us to do several large jobs at the same time and do them quickly.

Easy to learn software is a major part of our success. This is because all of our draftspersons

are part-timers. Most of the people I select for my computer draftspersons are students from the University of Hawaii and, surprisingly, most are not architectural majors. Because of the software and the usual eagerness of the students to learn, the training period is usually one to two weeks long.

During that time, we provide the student with training manuals and computer time. The hands-on computer time is the most valuable aid in learning the software. The quickest learners are always the ones who spend the most time practicing on the computer. The training period is on the student's own time. When he feels he knows the software, we test him, and if he satisfies our requirements we start him at \$5/hour.

Our production software is Architectural Interactive Design System (AIDS) from ARCAD. As stated before, one of the most important aspects of this software is ease of learning. Also important is the minimum requirement of eye-hand coordination, that is, the eyes are always directed at the screen for maximum efficiency. (Assuming one knows how to type!)

We also have a production software from HOK, which we use only to do large three

dimensional drawings. It has the capability to do hidden line removal on large drawings. I use it as a study tool to aid in design.

Hardware and software is only half of the solution to a faster more efficient means of producing design. The real success in getting the job done is information organization. For example, a typical project of \$30 million construction cost requiring 75 sheets of drawings may have over 1,000 different pictures. Somehow, one has to keep track of all pictures drawn and create a library. Otherwise you end up drawing the same things over and over, and work against the magic of the computer. We tried many systems of keeping track of our pictures from cataloging them to numbering them. All of which seemed rather cumbersome.

Finally, I decided to write the name of the picture in a little box right on the picture itself. In this way we can find pictures easily,

because they are right on the drawings each time we print them out. This saves a great deal of hunt and search time. Before final printing, or working drawings, we remove all of the names from the drawings. This does not take much time in relation to the time it saves us in finding and coordinating the many different pictures used in the job.

The amalgamation of hardware, software, labor source, and internal information management gives us the ability to produce drawings faster and cheaper than other competing firms. **HA**

Warner G. Boone is president of Boone & Boone, Inc., whose firm specializes in architecture, urban design and planning. Work completed by the firm includes master planning, highrise developments, resort developments, cluster planned unit developments, shopping centers and industrial complexes.

Tub-master

Tub and Shower Doors to fit any opening.

- Modern concept and design
- Shatterproof panels and hinges
- Can be installed in only 30 minutes
- Meets all building/safety codes



Built-in ironing centers for homes, hotels, apartments and dormitories

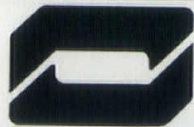


distributed by

T. R. COMPANY

Contr. Lic. #ABC-3073
1517 Kapiolani Blvd.
Honolulu, Hawaii 96814
Phone 949-2011
We carry items in stock!

**Hawaii's own supplier
of cement and concrete
products...**



HAWAIIAN CEMENT

Cement
Concrete
Aggregates
545-1880

Better Safe Than Sorry!

Why risk the consequences of losing vital business records to fire or theft when you can have **FireKing®**

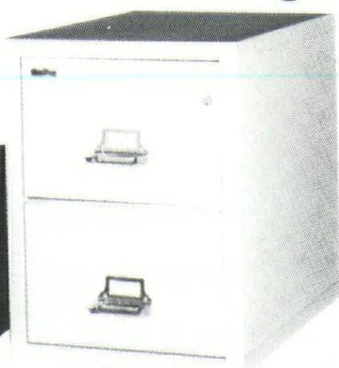


FIREPROOF SAFES

- Certified to withstand a 1850°F fire for over 1½ hours.
- Available in a full line of sizes and models with interior accessories designed to store computer tapes and disks.
- 24 hour in-house locksmith available.

sen OFFICE FURNITURE, INC.

Phone 848-0251 • 904 Kohou Street on Kapalama Canal • Mon.-Fri. 8am to 5pm



FIREPROOF FILE CABINETS

- Certified to withstand a 1700°F fire for 1½ hours—50% more certified protection than any other file made in America.
- Lateral and vertical two, three and four drawer files in designer colors or executive wood grain finishes.

See the **FireKing®** line of files and safes in our showroom today.

Distinguished Arts Award to Ossipoff

Governor John Waihee recently presented the 1986 Hawaiian Architectural Arts Award. The distinguished award, sponsored by the State Foundation on Culture and the Arts, recognized the Pauling residence on Round Top Drive as an outstanding example of architecture that reflects Hawaii's unique natural and cultural environment. Accepting the award were Dr. Linus Pauling, Jr. and Vladimir Ossipoff, FAIA, the architect commissioned to design the home.

"... create architecture that expresses Hawaii ..."

"[The Hawaiian Architectural Arts Award] is not just a recognition of good design, although without good design the project it celebrates would not succeed," the Governor commented, "but it honors the people who commission and create architecture that expresses Hawaii, the beauty and diversity of its land and its people."

The distinguished jury who nominated the Pauling residence to the State Foundation for its third annual award included Owen Chock, AIA; Donald W.Y. Goo, AIA; and Ty Sutton, FAIA; Juli Walters, ASLA; and Wendell Brooks, Jr., managing director of Chaney Brooks & Company.

The jury noted Ossipoff's sensitive use of the challenging Tantalus rain forest site; the incorporation of the arts and crafts of Hawaiian and Pacific Rim peoples into the home's open informal plan; and the blend of natural materials, many native to Hawaii, in both the interior and exterior design.

(continued on page 30)

We have a name for it... "No Ka Oi"

ROYAL PACIFIC.

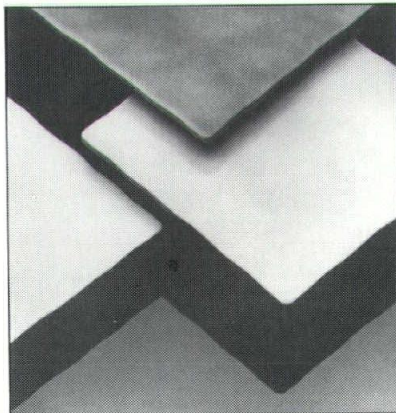
Born of the Pacific, the Royal Pacific Series of finely textured ceramic tiles lends island charm and warmth to any setting.

Our name says it all. Tile crafted by the artisans of Italy. Germany. France. The Far East. America. And we offer one of the largest selections in the Islands. Backed by innovative ideas and service nonpareil.

Open weekdays 9 to 5. Saturdays 9 to 3.
330 Sand Island Access Road. 847-5959.

INTERNATIONAL
TILE DESIGN, INC.

Hawaii's Beautiful Ceramic Tile Showplace



We've Come a Long Way

(continued from page 6)

membership, with the number equally split between the two communities. Despite the considerable geographical separation of its members, the Hawaii Island Section conducts public awareness programs, professional development seminars, and other events, demonstrating the deep and continuing concern the members have for architecture and the environment on the Big Island.

Like the three statewide commissions of Public Awareness, Membership Services and Government Affairs, and the 15 committees within the HS/AIA, the Maui Section and Hawaii Island Section are vital parts of our Society that enable us to support one another in our professional growth, and the contributions that we can make to our communities throughout the state.

If we remain united in our all-for-one and one-for-all concept of duty to our clients, service to our community and dedication to our professional society, we can look forward to the continued growth and progress of our Society, which may include the organization of a Kauai Section as well, and perhaps someday the evolution of our sections into chapters.

Even at this time, a task force is currently reviewing a position paper, presented to the Board by the Maui Section, which proposes fundamental changes in the Society structure. Considered wholly or in part, these proposed changes will enlist lively debate within the Society as a whole, I'm sure, when the task force reports to the AIA State Convention this fall.

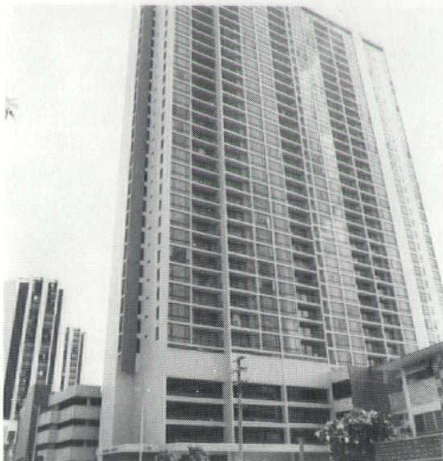
In the growth and activity of our neighbor island sections, we share in the pride, for we have come a long way. And in their story, we share the inspiration of what individuals can do, joined together, one step at a time. **HA**

SPECIFY BREWER CHEMICAL AND GET THE JOB DONE RIGHT!



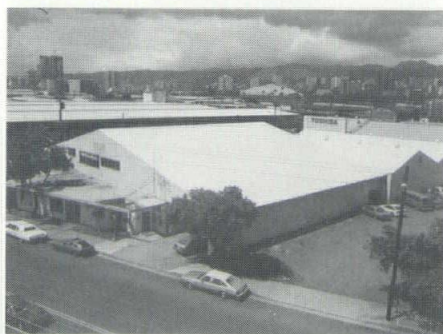
● SYSTEM 7 — BENTONIZE

One Waterfront Plaza



● WALLFLEX

Waikiki Sunset



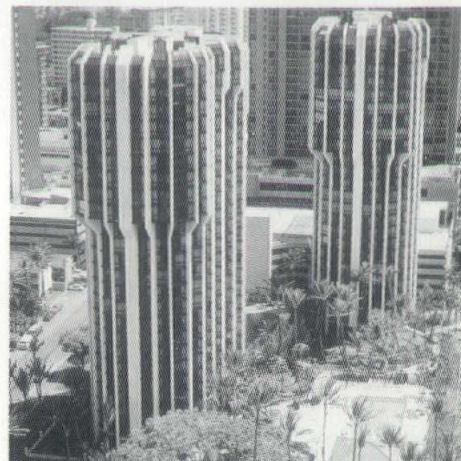
● FLEXOTHERM

C.H. Brown Trust



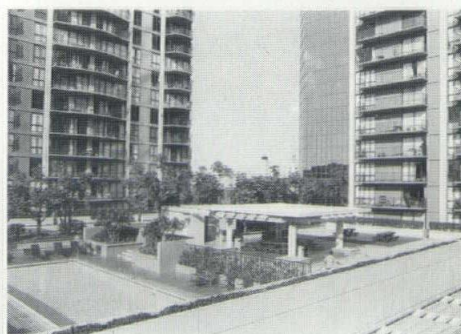
● VALSPAR

Honolulu Airport Overpass



● DRYVIT SYSTEM

Liliuokalani Gardens



● NEOGARD

Harbor Square



BREWER CHEMICAL

a C. BREWER company

PHONE 533-4411

OAHU, HAWAII, MAUI, KAUAI, GUAM

HAWAII SOCIETY / AIA

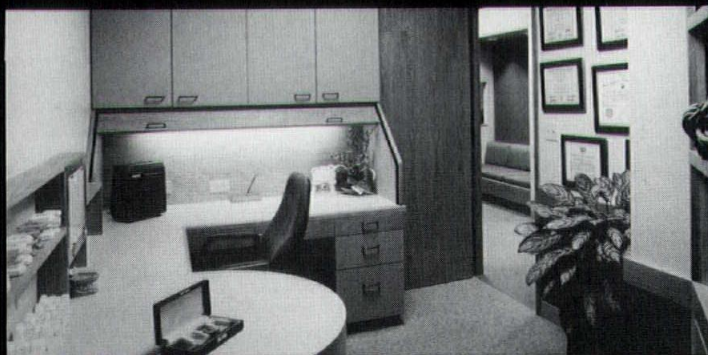
DENTAL OFFICE BY



A "Cutout" opening to the operatory adds interest and friendliness.



A close-up of the "Cutout" opening to the operatory.



A rolltop desk and counter was custom built to fit in the small private office.

JURY COMMENTS:

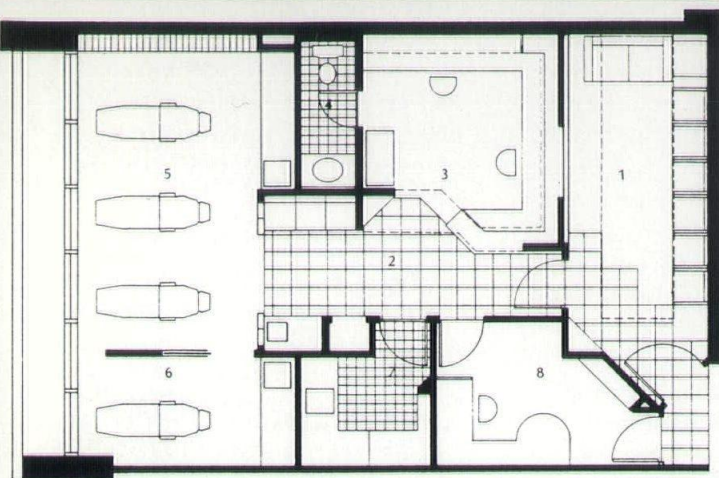
"...extremely sensitive use of spatial forms..."

"A thoughtful, creative design which utilizes a small space optimally without ever giving the occupant... a feeling of clutter or restriction. Almost every wall space serves a function, even the colorful grid on one wall."

"Through careful planning and creative solutions, every inch of this small space is exciting and functional."

1987 DESIGN AWARDS

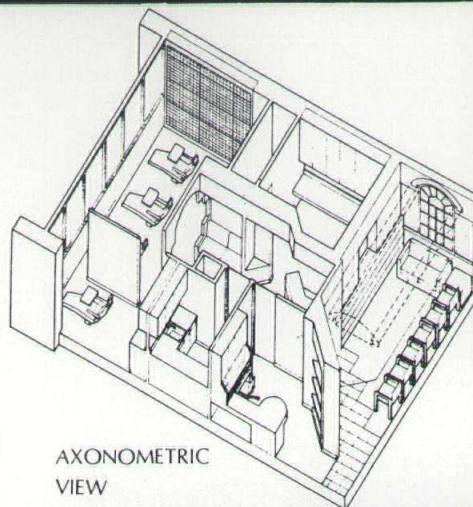
URBAN WORKS, INC.



FLOOR PLAN

- 1 WAITING
- 2 HALL
- 3 RECEPTION/BUSINESS
- 4 RESTROOM
- 5 OPERATORY
- 6 EXAMINATION ROOM
- 7 LABORATORY
- 8 OFFICE

1 0 2 4



AXONOMETRIC
VIEW



The vaulted ceiling and incandescent lighting in the waiting area create a warm atmosphere.

CREDITS:

Client

Randal D. Morita D.D.S.

Location

Newtown Square

Architect

Urban Works, Inc.

Principal-In-Charge

John J. Ida, AIA

Project Architect

Rodney O. Hirata, AIA

Electrical Engineer

Bennett & Drane

Contractor

Hiroshi Monma

General Contractor, Inc.

Photographer

Augie Salbosa Photography

PROGRAM: Provide an environment that would maximize the functional aspects of an orthodontic practice and yet project an image of the doctor's willingness to deliver better dental care to his patients. The doctor has an established practice, so the office had to accommodate a high volume of traffic (sometimes 10-12 patients per hour).

SOLUTION: The design clearly separates flow from staff functions. The Doctor's Office is central to the Waiting Area (family conferences), Reception/business (staff communication) and Operatories (patient care). The door separating the Waiting Area from the Operatories is glazed to give young patients a visual connection with the Waiting Area, where parents wait. The Operatories are in an open bay to create an environment of spaciousness and efficiency.

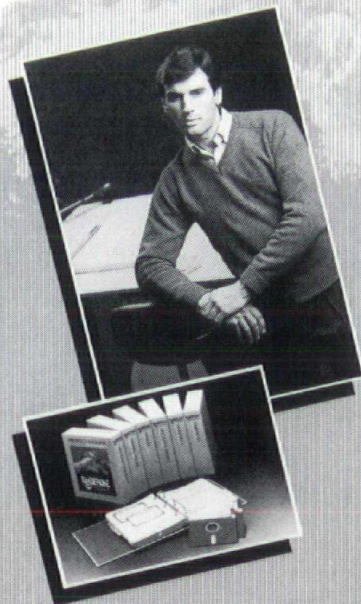
Subdued colors and materials are used to create a tranquil domestic environment to help alleviate any anxieties that patients may have.

FOR ARCHITECTS & ENGINEERS

AEPEX

*Your
Complete System*

Manage your business as effectively
as you practice your profession...



AEPEX is for architects and engineers who need the performance of a professional project management and accounting PC software system that's fast, easy, flexible.

AEPEX puts you in control of your business... helping you improve cash flow, enhance production, reduce time tracking jobs, and increase profits.

AEPEX streamlines your practice. Time sheets are transformed into payroll checks, project reports, client billings.

AEPEX helps you manage your bottom line with the financial information you need to keep your firm on track.

Call us today for more information about AEPEX, Your Complete System from Timberline Systems.

**Ledgerwood
Associates, Inc.**

*Computer Accounting &
Networking Specialists*

Ala Moana Pacific Center
1585 Kapiolani Blvd., Suite 1609
Honolulu, HI 96814

(808) 942-5279

**TIMBERLINE
SOFTWARE
AUTHORIZED
DEALER**

NEWS

Parade of Homes Underway

The 31st annual Parade of Homes gets underway Saturday, Sept. 12, and continues for three weekends through Sunday, Sept. 27. With 26 entries, including 20 on Oahu, four on the Big Island, and two on Maui, this will be the biggest Parade in the past five years.

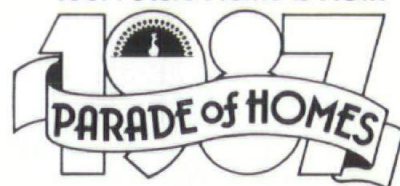
Open houses, held from 10 a.m. to 5 p.m. each Saturday and Sunday during the Parade, are hosted by realtors selected by the entrants. The public is invited and there is no admission charge.

The major annual event of Hawaii's building and real estate industries, the Parade of Homes showcases the latest trends and developments in homebuilding, remodeling and interior design. Sponsoring organizations are the Building Industry Association of

Hawaii and the Honolulu Board of Realtors.

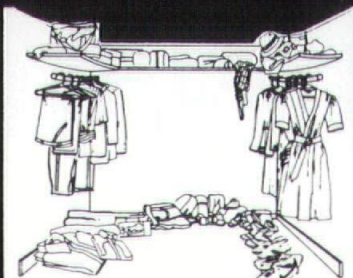
"Your Future Home Is Now!" is the theme of the 1987 Parade. It was chosen to emphasize the importance of making home ownership a priority in family financial planning.

Your Future Home is Now!

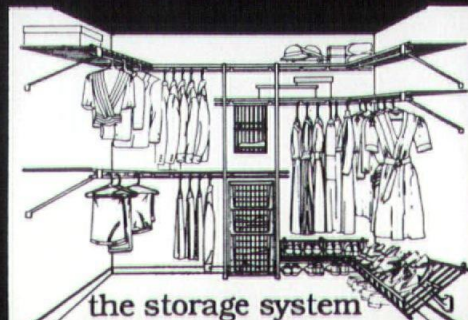


The homes will be judged for architectural design, materials, workmanship, interior design, suitability to site, landscaping and marketability by a seven-member

Which builder would you buy from?



the standard closet



the storage system

You'll find CLOSET MAID Storage Systems in the model homes of these quality builders.

BLACKFIELD HAWAII Corp. at Kaneohe Woods
GENTRY VENTURES at Waialae Iki V
ALBERT KOBAYASHI, Inc. at Laulima
KUULEI BUILDERS at Royal Summit
URBAN BUILDERS at Manoa Shangri La

CLOSETMAID®

Lic. No. BC-12627



**SPACE
SYSTEMS
SUPPLY**

2029 Kalani St. • Hono., Hi. 96819 • (808) 841-5653

judging panel representing architects, bankers, builders, interior designers, landscape architects, landscape and irrigation contractors and realtors.

Homes will be entered and judged in various divisions, which are determined by the house/lot price with all upgrades and amenities, excluding portable furnishings. In addition to the awards in each division and "Best in Show," several other major awards will be given. They include the *Hospitality Award* by the Honolulu Board of Realtors, the *Theme Award* by IMCO Realty Services, Inc., the *Lishman Award for Excellence in Interior Design* by the Lishman Family and the American Society of Interior Designers/Hawaii Chapter, the *ASLA Landscaping Award* by the American Society of Landscape Architects/Hawaii Chapter, and the *HLICA Landscaping Award* by the Hawaii Landscape and Irrigation Contractors Association. Entries will also be recognized for the *Best Use of Wood*, *Best Use of Ceramic Tile*, *Best Use of Art or Decorative Glass* and *Best Use of Laminates*.

For the first time, a Governor's Award for Affordable Housing will be presented by Governor John Waihee. This new award will be presented to the entry judged on its merits as an affordable home.

As a Parade of Homes-related event, the American Society of Interior Designers/Hawaii Chapter will present a series of free seminars for the public Sept. 14 through 17, from 7 to 8 p.m. at The Ward Warehouse Workshop located on the upper level above Town & Country Surf Shop.

Last year's Parade drew approximately 100,000 visitors and more than \$24 million was generated in sales contracts. Free Parade of Homes Guidebooks covering all entries in detail and including directional maps will be available at the open houses.

SANT'AGOSTINO

OF ITALY

NOW

Exclusively stocked and sold in Hawaii by

MOREIRA TILE

NEW STARS SERIES



Elegant, original and hard-wearing—the choice of Architects and Designers.

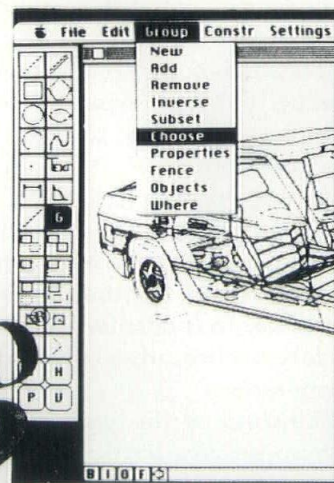
Sant'Agostino's beautiful 12½"x 12½" tiles offer a new dimension in beauty and value in plain and tasteful patterns to enhance any setting.



**MOREIRA
TILE**
HAWAII'S
CERAMIC TILE
CENTER
Ph. 845-6461

New Power for Desktop Design

VERSACAD
Masterpiece



For more information call

**SynCADD
Systems, Inc.**

"The Systems Integrators"

826 Kaheka St., Suite 305A
Honolulu, Hawaii 96814 / (808) 941-8286

Computers and Ideas

by J. Peter Jordan, AIA, Associate Professor
School of Architecture, University of Hawaii

Day to day survival seems to be more and more a matter of minimal technological competence merely to survive. The bleary eyed early riser may be confronted with several microprocessor-controlled appliances which require a set of program instructions just to get a cup of coffee. Fred Stitt, a consultant who specializes in production efficiency, brings drastic news to architectural firms when he tells clients, "Automate or die!"

I remember a student asking me, "If two architectural firms are competing for a project, and one firm has a computer, will the one with the computer get the job?" It gets right to key issues of professional competency and insecurity. Many experienced architects are afraid to even ask this question, much less answer it. As one recent publication in the construction industry asks, "How can you survive without one?...Owning a computer is a credential that certifies you as a modern technically proficient businessman."

The story of the genie imprisoned in a bottle who had promised to destroy the one who freed him is familiar to everyone. There is an electronic genie inside the computer cabinet, and it presents unknown alternatives of either unimaginable riches (design can be automated and jobs made easier) or utter doom (why pay an architect thousands of dollars when you can design it yourself with a \$29.95 software package?). Computers are the genies which promise both to remember and process

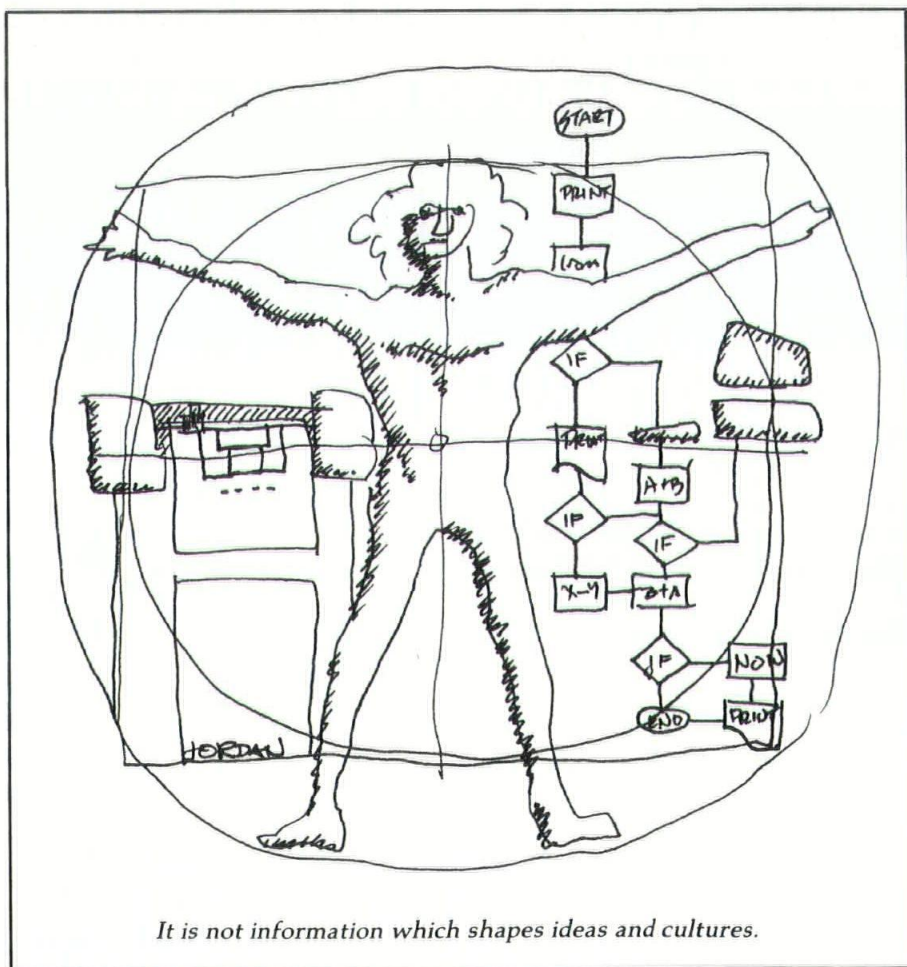
information, and the power of that unknown genie leads to the fear that the architectural profession can be replaced by a computer as easily as a shop welder can be replaced by a robot.

Theodore Roszak's recent book, *The Cult of Information*, examines the Information Age and its underlying assumptions. He discusses the role of information in the culture and distinguishes information from ideas. "Ideas are integrating patterns which satisfy the mind when it asks the question, What does that mean? What is this all about?" To put it another way,

ideas are the foundation on which information must be supported in order to create knowledge.

Rationalism as an approach to problem solving is one of the key ideas of modern architecture, and René Descartes was a key figure in the development of rationalism as a rigorous philosophical grounding for what became a scientific revolution. Rationalism rejected the accepted systems of natural science and philosophy in favor of a system of rigorous logic. Descartes attempted to assume nothing and prove everything rationally (a task that

(continued)



Marble's elegance can make an ordinary ceiling simply...*Heavenly.*

Tile on the ceiling? Yes! The versatility of ceramic tile and marble (a superior member of the tile family) makes it possible for you to cover virtually any surface, adding pizzazz to any area of the room—inside or out.

In the inner lobby at the Punahou Cliffs (shown), the magnificence of marble on ceilings, walls and floors speaks of sophistication and provides a unique ambience that truly belongs. Marble's lasting luster needs minimal maintenance and will be enjoyed by residents and guests for years to come.

Call us when considering using tile for your next project.

HAWAII CERAMIC TILE, MARBLE & TERRAZZO PROMOTION PROGRAM 615 Piikoi, Suite 804, Honolulu, Hawaii 96814

Ceramic Tile, Marble & Terrazzo
"Enhancing the Beauty of Hawaii"

Contact any one of these Promotion Program participants:

Allied Floor Corp. 847-0288
Atlas Tile, Inc. 839-7403
Classic Tile Corp. 841-6893
Honolulu Roofing Co., Ltd. 833-6366
Honolulu Tile & Marble 373-2034
Nan-Cor Tile Company 488-5591
Pacific Terrazzo & Tile Corp. 671-4056
Pacific Tile, Inc. 841-8534
Bob Pezzani Ceramic Tile 841-7911
Tidy Tile Company 456-5914
Wichert Tile, Ltd. 955-6631

Installations of Ceramic Tile, Marble, Terrazzo and related products by those listed above are performed by their skilled union craftsmen, approved as professionals in their trade by International Union of Bricklayers and Allied Craftsmen, Local No. 1, Hawaii.

ARCHITECT: James K. Tsugawa A. I. A. and Associates

GENERAL CONTRACTOR: Nordic Construction Ltd.

DEVELOPER: The American Land Group

INTERIOR DESIGN: Adams Design Inc.



(continued)

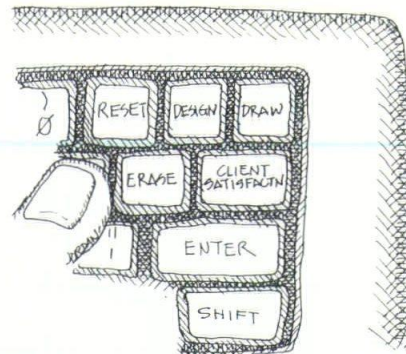
he never completed).

Many practicing architects received a "modern" education, strongly influenced by the rationalist dictum "form follows function." This idea seems to perfectly mirror the increasing dominance of the machine in our industrial society. Roszak might identify this as a "master idea," a statement which forms the basis of a philosophical system. Architects studied the function of

a project and produced a variety of architecture: good, bad and ugly. Often the functional design derives more from a machine vocabulary which was justified by the appearance of rational functionality.

There have been other architectural "master ideas" —the aesthetics of geometric relationships developed in Ancient Greece dominated architecture until this century. However, architects now believe

volumes of tables and floppy disks of data to be more important as design ideas than proportion and symmetry. Roszak suggests that the



They have mistaken computer skill for professional understanding.

Information Age runs the risk of mistaking data for information and knowledge for ideas. It is not information which shapes ideas and culture, and the mere knowledge of something does not automatically mean that the underlying concepts are understood.

Architectural design likewise runs the risk of mistaking the rational process itself for ideas. All the data collected in the programmatic phase of a project will not take the place of a solid architectural idea, a concept which gives form to the analysis. The very nature of the information that is collected is a reflection of fundamental concepts and ideas about that particular project, its type, the nature of professional service, and architectural design itself. Buildings which take their shapes from processed data without an organizing idea are architectonic babble, visual intrusions without content in the landscape.

Within the last two decades, the search for a design concept has almost been replaced by a quest for increased productivity, competitiveness and marketing skills as architects vie with each other for client dollars. Computers have been the touchstone of this quest, offering the power to unlock the true potential of professional practice by allowing more time for design

We are now representing
pacific crest mills
sutton carpet mills

Featuring carpets made of Monsanto's Gold Label Stainblocker Nylon



Call us for your contract needs.

*We are also the distributor of
Congoleum for the state of Hawaii*



WORLD CARPETS

2869 Mokumoa St., Honolulu, HI 96819 (808) 833-3071

or enabling a better design.

Some architectural firms have acquired a good computer system, set it up in a corner, and waited for it to work its magic. They have stood trembling before this instrument of the Information Age, awaiting its action. They have released the genie and have found that it neither endows wealth nor instantaneously destroys; it just sits there. They might have listened to a consultant who suggested, "The best way to handle the decision may be to buy the cheapest computer you can find — and store it in the closet. Permanently."

"Age, awaiting its action."

Others spend hours before a flashing screen, fingers flying across the keyboard, producing thick reports of tables and graphs which they assume to be analysis of central importance to the design process. They have mistaken computer skill for professional understanding and data for information, totally forgetting that a design idea is crucial to the overall success of a project. These architects truly believe that application of data processing to an architectural problem in and of itself can produce design excellence.

However, there are those who have found, not the magic genie, but a tool which extends and magnifies their capabilities to analyze and understand problems and express solutions in light of their understanding of the nature of architectural design. It is their ideas which shape their use of the computer.

But, the student asks again, "Which office will get the project?" In that classroom, on that afternoon, I replied that if both offices had equal capabilities, a slight edge might go to the firm

Build Today ... for Tomorrow

When it comes to building the best project possible, whether it's a home, office building or any other structure, you need to depend on the labor you're using. Depend only on licensed, bonded contractors for mason work such as laying brick, hollow tile, and more. Look to licensed masons you can count on!

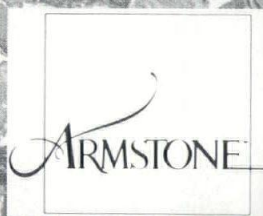
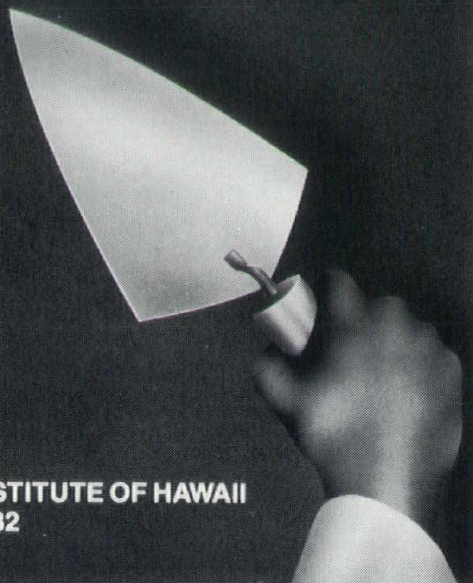
We're licensed to build for you.



"BUILD HAWAII STRONG WITH MASONRY"



MASONRY INSTITUTE OF HAWAII
Phone 833-1882



CAST STONE FLOOR TILES AND WALL PANELS



Armstrong floor tiles and wall panels are over 90% natural stone, available in a range of sizes and two thicknesses, for contract interiors. Available in both polished and honed finishes.

An affiliate of
2828 PAA ST., STE. 2100 / 833-9988

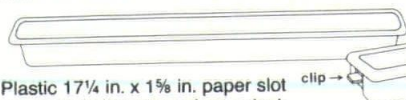


CABLE HOLE COVERS

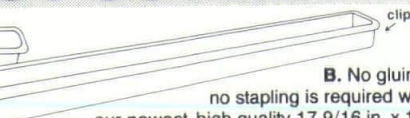


2½ in. diameter cable hole cover with break-away tab in top of high impact system.

PAPER SLOT COVERS



A. Plastic 17¼ in. x 1½ in. paper slot cover protects the edge of your desk while keeping paper feeding straight. Eliminates the need for banding of paper slot.



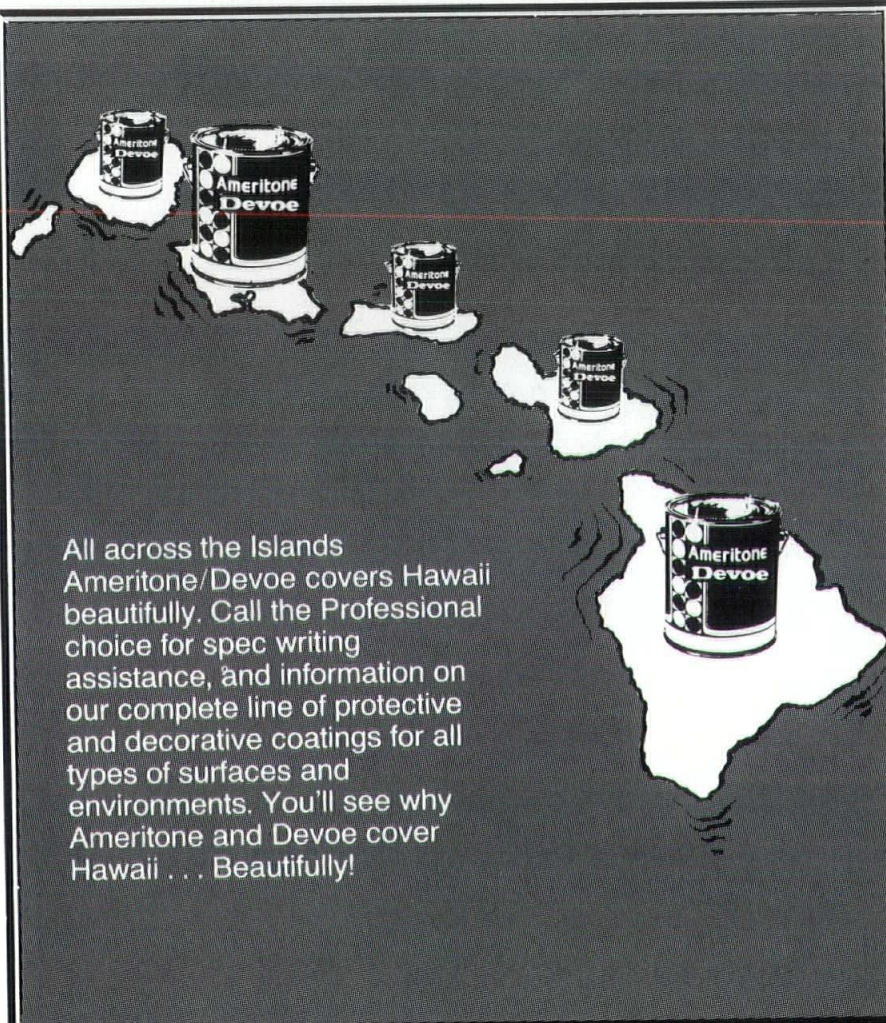
B. No gluing, no stapling is required with our newest, high quality 17 9/16 in. x 1½ in. paper slot cover featuring a unique clip on each side for fastening to the work surface.



EUROTEC
PRODUCTS INC.

2305-I Kam Hwy. (Behind Gaspro)
Telephone (808) 841-5414

THE PROFESSIONAL'S CHOICE ACROSS THE ISLANDS AMERITONE/DEVOE



All across the Islands Ameritone/Devoe covers Hawaii beautifully. Call the Professional choice for spec writing assistance, and information on our complete line of protective and decorative coatings for all types of surfaces and environments. You'll see why Ameritone and Devoe cover Hawaii . . . Beautifully!



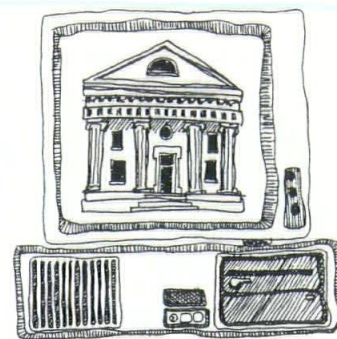
Honolulu
1353 Dillingham Blvd.
Honolulu, Hawaii 96817
Phone: 841-3693

Hilo
18A Pohaku St.
Hilo, Hawaii 96720
Phone: 935-2011

Kona
74-5559 Alapa St.
Kona, Hawaii 96745
Phone: 329-2766



with a computer system. However, where one firm's professional capabilities are clearly superior to the other's, I would hope that the client would not be swayed by the mere presence of a machine. God help us — there will be those clients who will adhere to a bit of flash like opihi to a rock.



Computers lead to the fear that the architectural profession can be replaced as easily as a welder is replaced by a robot.

My answer betrays my own ideas and convictions about design process which reflect fundamental beliefs about excellence and the architectural profession. My involvement with computer applications occurs in the environment of those ideas. Computer hardware and software should not and ultimately cannot dictate professional services. Architectural ideas, hopefully the best of the wonderful diversity of design concepts, must shape computer applications. I cannot help but believe that thoughtful computer application can support and enhance well-conceived architectural design on any project. HA

J. Peter Jordan is an Associate Professor in the School of Architecture at the University of Hawaii at Manoa where he teaches courses related to computer applications in architecture and computer-aided design. Prior to his appointment at the University, he was a Senior Associate at Media Five Limited where he had substantial responsibility for policy and implementation decisions related to computer applications.

The magical window nook.

Pella windows from JBL make your home a better place to live.



Listen. Memories of childhood afternoons are being made in this sunny corner of the castle. Once again, Pella has created someone's favorite place.

Make your home a castle with Pella. Choose classic double-hung windows surmounted with your choice of circlehead window designs, fitted with removable wood windowpane dividers. Select from an inspiring range of traditional and contemporary styles and sizes, or even Pella custom windows.

Pella windows pivot for easy washing from the inside. Optional aluminium cladding outside will never need painting, even when this childhood afternoon has become a happy memory.

Building, remodeling or replacing, the JBL experts can help you create your favorite place with Pella windows, doors, sunrooms and skylights. We're at your service Monday through Friday, 7:00 a.m. to 4:30 p.m.

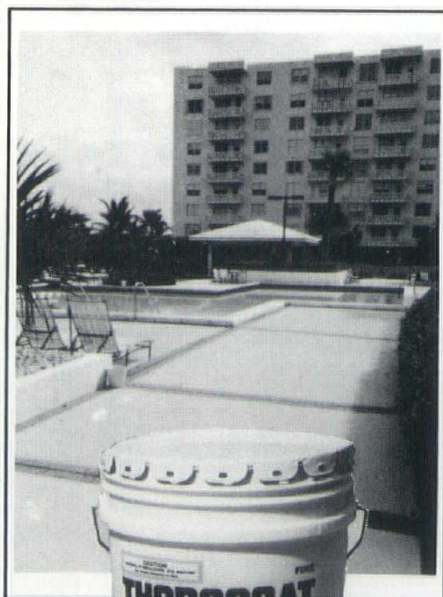
JBL
HAWAII LTD.



531 Waiakamilo Road
Honolulu, Hawaii 96817
(808) 847-4021

MAp

Heavy-Duty Floor Coating Quiz



Q: Which decorative coating for concrete is **best** for stairs, entrances, porches, pathways and pool decks?

A: We can't honestly say which is **best**. After all, we represent several lines which fit different conditions. And we have competitors, of course.

Q: Let's rephrase the question. What would MAP recommend for **heavy foot traffic** — outdoors or indoors, above or below grade?

A: **THOROCOAT F-74®** is a good choice. To begin with, it far exceeds the **abrasion** resistance requirements of Federal Test Methods 141 and 6191. It is **color fast** (10 stock colors) and very resistant to staining and to our tropical sunlight. The fine **sand-texture** looks great and covers substrate imperfections. One-coat hiding power and **water cleanup**. Like to try it? Call us or Bonded Materials. We're pretty sure you'll be delighted.

MANUFACTURERS AGENCY PACIFIC

ROOFING/SIDING • WATERPROOFING • CONCRETE/COATINGS • FIREPROOFING

Sales Representatives and Materials Consultants

1053 Kooehoo Place, Kailua, Hawaii 96734 • Phone 262-2434/262-4273

Thorocoat® is the registered trademark of Thoro System Products

Stateline Cabinets, Inc.

If you can dream it or design it, we can create it.

You have many outstanding options when you come to Stateline Cabinets. We will bring your plans, specifications or artistic dreams to reality in our master-crafted cabinetry.

Or, you may select from our many versatile designs—traditional to the upbeat European look of our latest offering, "Eulopa."

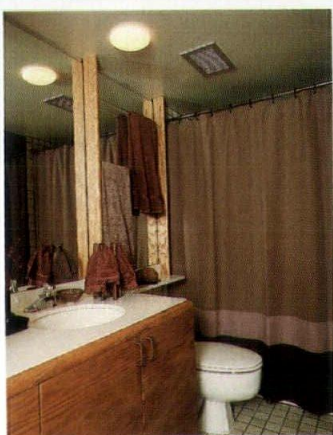
Choose from rich woods or attractive and colorful plastic laminates and we will mix or match as you desire, creating the perfect ambiance for your architecturally-designed home, office or commercial setting.

Cabinetry, matching room accessories, and appliances. We do it all.

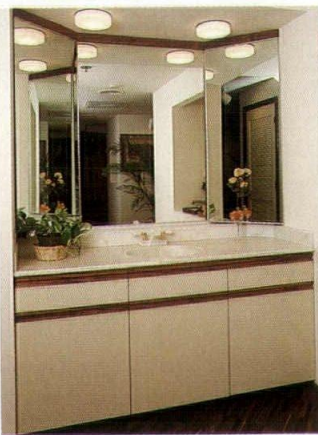
Stateline. Your one-stop source.



The European look of Stateline's clean, uncluttered cabinet design, "Eulopa," was selected by Mililani for their line of luxury, Executive Homes. The kitchen above features attractive and durable high-pressure almond plastic laminate with Stained Oak trim and continuous pulls.



In this bathroom at Honolulu Tower, Stateline brought the architect's plans to reality through the beauty of Stained Red Oak with white cultured marble. The innovative standing towel rack of Solid Oak is an example of Stateline's versatility.



Another example of architect design custom cabinetry in the bath—this time at Punahou Cliffs Condominium. Here, Stateline utilized high-pressure laminate plastic-faced doors and drawers with Koa trim and continuous pulls. A wide array of laminate colors also are available.



An unusual bathroom treatment by Stateline, above left, in striking black lacquer on Birch with white lacquer molding.

The bathroom at right features quarter-inch CORIAN® inserts framed in solid Teak.

Stateline Cabinets, Inc.

2312 Kam Highway • Honolulu, HI 96817 • Phone 847-5736



Computer Modeling

(continued from page 7)

Imagine that you have used such a computer system to work out a building design in moderate detail. Subsequently, you propose a change to the corners of the building, creating a new three-dimensional model of one corner. When you insert the new version into your master model, bingo! It automatically updates all related information. In the 3-D model, all occurrences of the new corner configuration are instantly changed. Sectional details are pre-defined as particular slices through the model, so those drawings are appropriately changed as well. Plans and elevations are also automatically revised.

If your proposed change implies greater cost, a new construction trade or a longer construction process, you are immediately warned of the consequences. Furthermore, any future reports or graphs will automatically reflect the change. Finally, if you have defined a viewing path for the model, you are instantly able



With computer modeling, details are fascinating as seen in this 3-D shaded model of a hotel staircase.

to call up a movie illustrating the visual consequences of your change.

At Group 70, we are automating many modeling tasks on computers and linking certain models together with gratifying results. The technical capability to produce a monolithic, interconnecting model already exists. The really exciting challenge now is the practical

implementation of that technology.

Before a fully integrated architectural model is practical, computer power and speed will probably need to increase a thousand-fold. Fortunately, we can confidently expect to see that kind of price/performance improvement. Power will allow computers to communicate with their users more easily. For instance, the human voice may soon supplement typing and menu input of computer commands.

Practical implementation of new computer methods among architects hinges, in part, on greater ease of use. However, the most important movement will be the professional's deliberate effort to let go of traditional modes and join in the exploration of computer systems. Computer experts cannot be expected to produce a truly useful system without the architect's direct involvement. The professional who does not participate in that development may, in the near future, feel like a Neanderthal transported into a jet fighter cockpit: Neither would be likely to get off the ground. **HA**



Computers can provide architects with models such as this intriguing 3-D shaded model which shows night lighting of a building entrance.



Martin & MacArthur

is pleased to now offer
their friends in the trade
a selection of famous Umikoa

KOA

Flooring • Paneling • Plywood
from the Big Island

Added to our quality inventory of Heritage Koa Furniture,
the more modern Pacific Crossroads Collection,
and extensive framing facilities, this new line greatly
enhances our hardwood lumber supply capabilities . . . as well as
our ability to serve the profession.

Come and see us at our factory or downtown showroom.

1815 Kahai Street
Honolulu, Hi. 96819
845-6688

Davies Pacific Center Lobby
Honolulu, Hi. 96813
524-4434

Arts Award

(continued from page 14)

Ossipoff has been a practicing architect in Hawaii for over 50 years. Born in Russia, raised in Japan and educated in California, he is at ease with the multi-cultural influences present in Hawaii. In addition to residences, Ossipoff has designed many other Hawaii facilities, including projects for the Queen's Medical Center, the Pacific Club and the Outrigger Canoe Club.

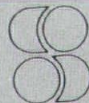
The Hawaiian Architectural Arts Award was established in 1984. Past award recipients include Aotani and Oka, architects and the State Department of Transportation for Ke-ahole Airport in Kona (1984) and Architects Hawaii, Ltd. and the First Hawaiian Bank for its Kapiolani Branch (1985). The State Foundation on Culture and the Arts administers the award with the assistance of the Hawaii Society/AIA.

AUTOCAD®

NOW AVAILABLE IN VERSION 2.6

AutoCAD... is a powerhouse!"

—InfoWorld, September 29, 1986



SYSTEMSOURCE

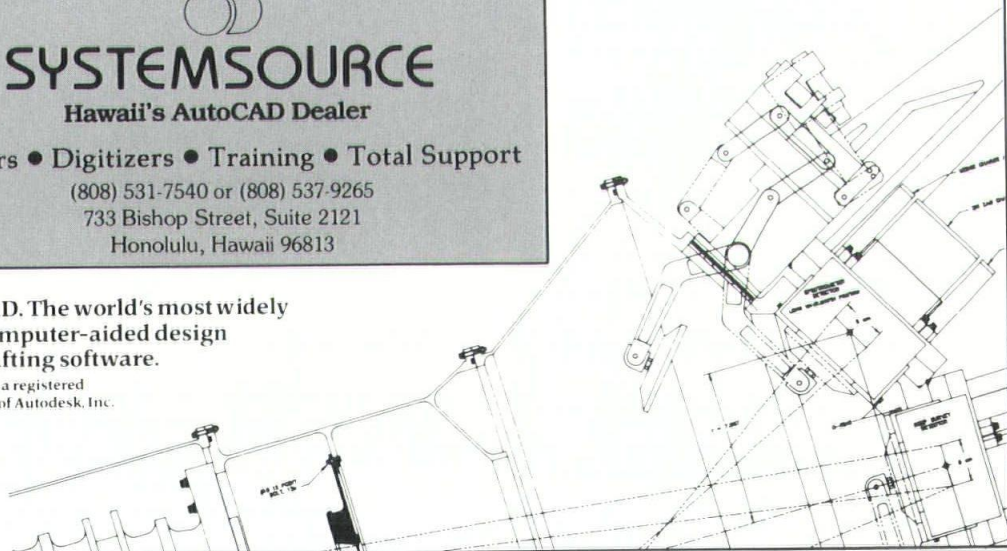
Hawaii's AutoCAD Dealer

Plotters • Digitizers • Training • Total Support

(808) 531-7540 or (808) 537-9265
733 Bishop Street, Suite 2121
Honolulu, Hawaii 96813

AutoCAD. The world's most widely
used computer-aided design
and drafting software.

AutoCAD is a registered
trademark of Autodesk, Inc.



Sharpe Company

Representative For:
Atlas Bolt & Screw • Zip-Rib
Alumax/Howmet Aluminum
McElroy Metal Mill
Merchant & Evans

116 Kailuana Loop, Kailua, Hawaii 96734
Phone (808) 262-7336

FUTURA STONE OF HAWAII



DESIGNER ELEGANCE IN
OUTDOOR FLOORING

FREE ESTIMATES

RESIDENTIAL
COMMERCIAL

3207-S N. Nimitz
833-7433



FINLAY TESTING LABORATORIES

- Soils & Concrete
- Non Destructive Testing
- Project Inspection & Quality Control
- Material Verifications & Monitoring

99-940 IWAENA ST., AIEA, HI 96701
(808) 487-0005

Cost Control Consultants



Pioneer Plaza, Suite 1777
900 Fort Street Mall
Honolulu, Hawaii 96813
(808) 523-9931

Peter D. Ackroyd

HONOLULU FAN SHOP



"Quality Backed By Service"

Kaneohe Aiea
247-3363 488-1221

45-955 Kam. Hwy. 98-027 Hekaha St.

ALL POOL & SPA



Residential/Commercial

- construction • renovations
- maintenance • replastering
- repairs • free estimates

Oahu, Hawaii, Kauai & Maui
Main Office: 261-8991 • Lic. #C-10892



THE 12-VOLT OUTDOOR LIGHTING SYSTEM

THE EFFECT IS SEEN
NOT THE SOURCE

*Dramatic Garden Lighting
& Supplies, Inc.*

616 POHUKAINA STREET, HONOLULU
(808) 545-7042

KATSUBE CABINET & FIXTURE

STORE FIXTURES
OFFICE RENOVATION
CUSTOM HOME IMPROVEMENTS
ALL TYPES—CUSTOM MADE

1320 Kalani St.
#301 up the ramp

845-7447
Lic. No. C9295

CADASSIST



MicroCAD Consultant

General MicroCAD Consulting
AutoCAD Customization
AutoCAD Training
Digitizing

538-0760

FIREPLACE HAWAII INC.

653 Mapunapuna Street
Honolulu, Hawaii 96819
(808) 833-0019
Eve Blomgren, President

For \$50 per month
this ad could be
selling your product
or service to all of
Hawaii's architects.
Call 621-8200



GLAZING CONTRACTING

KALU GLASS

955-2231

Lic. No. C-7453



(BC-08322)

SPECIALTY SURFACING COMPANY
HAWAII, INC.

HAWAII'S #1 TENNIS COURT
BUILDER, FINISHER & SUPPLIER

847-0882

Free Specifications & Information
116 Adams Way, Honolulu, Hawaii 96819

Robert Englekirk Consulting Structural Engineers, Inc.

1314 South King Street, Suite 714
Honolulu, Hawaii 96814

(808) 521-8858

Michael K. Kawaharada, S.E.

Director of Hawaii Office

Theodore J. Suzuki, S.E.

Project Engineer

Stewart N. Williams, S.E.

Project Engineer

Stuart K. Otake, S.E.

Engineer

Vince M. Oue

Engineer



DARLINGTON FLOORING

Supply, install, sand & finish hard-wood floors. Residential, Office, Racquetball courts & Gyms. Repairs and maintenance also. Quality & experience.

Licensed and Insured
FREE ESTIMATES

Lic. No. C-9236

533-2031

373-3677



CW ASSOCIATES, INC. dba
GEOLABS-HAWAII

Geology, Soils and
Foundation Engineering

2006 Kalihi Street
Honolulu, HI 96819 (808) 841-5064

PROTECT SERVICES INDUSTRY

Nationwide Sales
Installation and Service

- INDUSTRIAL ■ COMMERCIAL
- INSTITUTIONAL

- Burglar • Fire
- Closed Circuit TV • Access Control

Call for free consultation & estimates
No obligation

Central Station Sales & Administration

536-2182 537-2591

C-11331 / 745 South

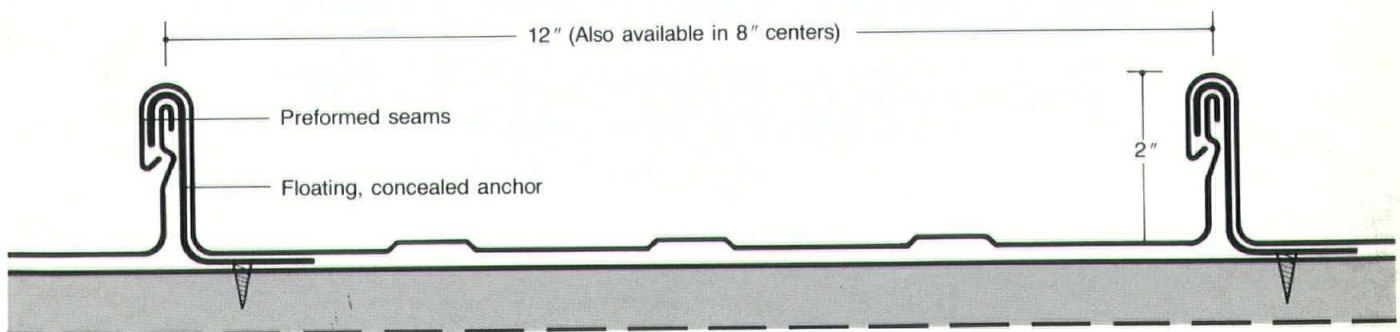
DIMONDEK[®] METAL ROOFING



Architect: Au, Haworth and Tsuruda, Ltd.

Roll formed in Hawaii for immediate delivery

- Floating, concealed anchors eliminate fasteners through panel and allow for expansion and contraction
- Long lengths eliminate end laps in most cases
- Preformed seams lock together without special seaming tool
- Available in prepainted steel, aluminum, stainless steel & copper



JORGENSEN STEEL