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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

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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.

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 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 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.

Evan D. Cruthers
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 blazingly fast.

(continued on page 29)
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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 Tektronics and two Prime high resolution work stations.

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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.

"... 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 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...
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

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

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."

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

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

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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.
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 Rene 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)
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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
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...
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 opih 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.
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**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.

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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.

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The European look of Stateline's clean, uncluttered cabinet design "Europa," was selected by Millani 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.

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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 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.
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 multicultural 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.
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