

Atoll residents finally go home

Rongelap islanders will resettle their atoll home in the Republic of the Marshall Islands this year, thanks in large part to efforts by UH's Pacific Business Center. The islanders were forced to leave because of nuclear testing on nearby Bikini atoll in the 1950s and again in 1985 when earlier resettlement efforts were cut short by lingering radiation. The business center, a program of Manoa's College of Business Administration, coordinated experts from many fields and institutions, including the College of the Marshall Islands. UH faculty and students participated in a preliminary ecological assessment, community building design, ecotourism feasibility studies, distance education plans and a comprehensive economic development strategy.

For its efforts, the center received the 2002 Project of the Year award from the National Association of Management and Technical Assistance Centers. Director Tusi Avegalio says the award recognizes the emphasis placed on building local capacity. "By training and using indigenous students, we can tap the depths of wisdom attained through centuries of island living. This is the best way to help build sustainable economies in these fragile island ecosystems."

A tip for touching

Briefly touching customers' shoulders earned restaurant servers larger tips in a study conducted by Manoa Associate Professor of Speech Amy Ebesu Hubbard and three of her students. Servers received 70 percent higher gratuities from patrons they touched than from those they didn't touch, regardless of the gender of the toucher or the tipper.



Back to manure

Animal waste from dairy farms proved to be an excellent pre-planting fertilizer for pineapple fields in trials coordinated by the College of Tropical Agriculture and Human Resources. CTAHR faculty and graduate student research documented several benefits—improved soil, higher yield, larger fruit, reduced leaching associated with inorganic fertilizers and safe recycling of locally produced compost. The skeptics are convinced; now if the cows can just keep up with the demand.

Slather on some fish slime

Need something stronger than SPF 15 sunscreen? Zoology doctoral candidate Jill Zamzow has discovered that the mucus of coral reef fishes contains a substance that absorbs damaging UVB rays at comparable or better levels. Since first noticing the benefits of mucus in the Hawaiian white-spotted toby, she has found protective compounds in about 90 percent of 200 tropical Pacific species tested. She is now looking at the relationship between UV exposure, sunscreen properties and the geographic distribution of fish species. Zamzow (MS '99 Mānoa) is Hawai'i's Achievement Rewards for College Scientists scholar of the year. More about her work at www.hawaii.edu/loseylab/coping.htm.

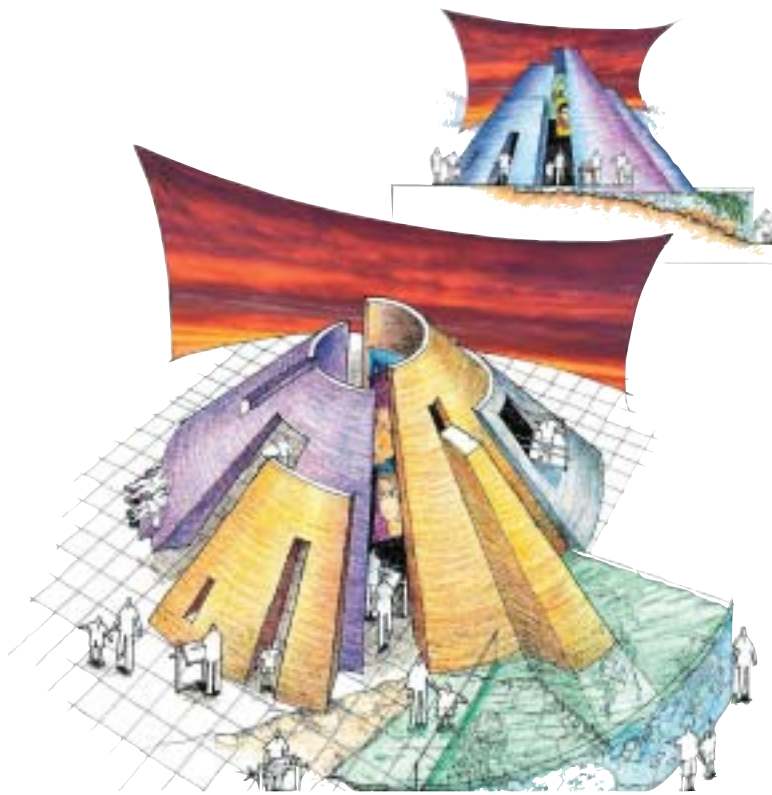


Illustration: Christine Joy Pratt

Environment-friendly lei-making

Increased interest in Hawaiian culture has produced a growing toll on the wild plants used to make lei for hula performances. To ease the strain on the environment, a group of plant and Hawaiiana experts has published *Growing Plants for Hawaiian Lei: 85 Plants for Gardens, Conservation and Business*. The UH book describes native and introduced plants valued by lei makers for their flowers and foliage. It also explores native traditions associated with material gathering and lei making and provides guidance for people who want to grow the plants commercially.





Mauna Kea Astronomy Education Center takes rapid strides

UH Hilo astronomy and Hawaiian language faculty are developing interpretive content for the Mauna Kea Astronomy Education Center, set to open in 2005 in the campus' University Park of Research and Technology. The \$28 million, 42,000-square-foot exhibition and omni-planetary complex will serve as the interpretive center for Mauna Kea observatories and the discoveries they make possible. "This facility will blend astronomy and culture into a compelling story of human exploration never before seen in the United States," says George Jacob, who draws on Smithsonian training and international experience to direct the project.

Meanwhile, officials have completed environmental assessments, secured \$16 million in NASA funds and selected a design-build architectural team. UH Hilo Chancellor Rose Tseng predicts that interpretive centers will become major dynamic providers of informal education within this decade.

by Alyson Kakugawa-Leong

Law team tops in nation

Third time was the charm for UH's international environmental law team. Law students Kanoë Kane, Kim David Chanbonpin and Josh Medeiros scraped together travel money, immersed themselves in legal issues related to international shipment of nuclear materials and finished first in the nation and second in the world at the 2002 moot court competition in Florida. It was only the third time a William S. Richardson School of Law team competed, but the win shouldn't come as a surprise—Mānoa ranks among the nation's top 20 law schools for environmental law studies.

Launa palapala CORRESPONDENCE

Enthusing over Esperanto

I have found in your beautiful *Mālamalama* the note "Language out of the mouths of babes" (Jan. 2002). Congratulations to UH linguist Benjamin Bergen for giving Esperanto a chance. Usually we find many linguists looking at Esperanto with prejudice, unacceptable from people with such a science background. The citizens hope scientists (will be sure) to check, to see, to experiment, to try before presenting an opinion. Dr. Bergen has done it.

Indeed there are many children around the world, who are growing with Esperanto as a second language. There is no case—as well as no reason—to be educated only in Esperanto. There is always the local medium and at least one local language for those families (mostly two or even three). Esperanto is for them a second language, in that one can get many contacts around the world. But those children, and also the adults who learn this language at any age, can easily have it as a second language. The best one for this role.

James Rezende Piton, Campinas, Brazil

Mahalo

I always treasure my time spent at the Mānoa campus and the great instructors who challenged me to reach even higher than I thought possible. Big time kudos to Fred Roster, Mo Sato, Gary Kissik and, of course, Katy Mikasa.



Terry Tarrant (MFA '75, BFA '72)

Editor's note: Tarrant worked for Leo Burnett Advertising Agency as executive art director and Foote Cone and Belding as vice president/executive art director. He has won awards for concepts on Seven Up, Coors, Kraft and Marlboro/Philip Morris TV productions/commercials.

Re: "Facing the End of Life" (Jan. 2002)

Having gone through a recent death of a dear friend from cancer, spending the last days with him and his wife while he made his transition AND having a mother that is expected to transition any day, I was most anxious to read the article. I was shocked to see an inset called "At the end, culture matters," which portrayed the end of life thoughts of people by their race. Even more disturbing were no thoughts relating to white people. Do not Scots, Irish, Teutonics, Iberians, Lithuanians, Italians, Spaniards or others have cultural beliefs about death, or are those thoughts all lumped into "white," meaning devoid of culture.

Let's begin to live the dream that Dr. King extolled in the '60s when he said "I have a dream that one day we will live in a world where we are judged by the content of

our character, not the color of our skin." Maybe we should change that to say "...that one day we will live and die..." Should you not strive for that balance in our magazine?

G. Rick Robinson ('78 Mānoa), by e-mail

Today's ABC (American-born Chinese) are not bilingual and tend to be ignorant of traditional Chinese culture. True, death is not openly discussed, but preparations planned ahead. We follow Confucius philosophy of life—return to your ancestors what was given to you—which explained early years of suspicion of Western medicine, especially unnecessary surgery, cremation, etc. Older women made plans for last clothing and, if Buddhist-Taoist, prefer to have such rites.

Evelyn L. Ho ('41 Mānoa), excerpt

Although only one reference to physician assisted suicide appears in the article, the subject is not thereafter discussed even though much of the work on the Center on Aging has compared some various cultural attitudes on physician assisted death.

Although the Legislature nearly succeeded this past session in making Hawai'i the second state to allow physician assisted death, the article does not make reference to that fact. I should hope that in future issues there will be further discussion of this matter in order to widen public understanding of the need to consider patient choice in the way death befalls an individual.

Ah Quon McElrath ('38 Mānoa), Honolulu

Cheering in Pennsylvania

I teach at Penn State University. The caption under the picture of the UH's NCAA national volleyball champions in the July 2002 *Mālamalama* states the games were played at Pennsylvania's University Park. This is a mistake. The games were played at the Pennsylvania State University, University Park Campus. I was there and cheered for UH.

James Levin ('70 Mānoa)

Memories

The photographs of Jean and Zohmah Charlot and news of the family's generous gift of their home (Jan. 2002) brought back a flood of memories of my summer schools session in 1949 or 1950, sharing a work table in the university pottery lab with the artist, an experience I shall never forget!

I first met the Charlots during his tenure as artist in residence at the Colorado Springs Fine Arts Center and Colorado College, where I was an undergraduate after

Continued on page 7



Terrance Jalbert



Jane Kadohiro



Nina Etkin



Kent Keiser



Herman Frazier

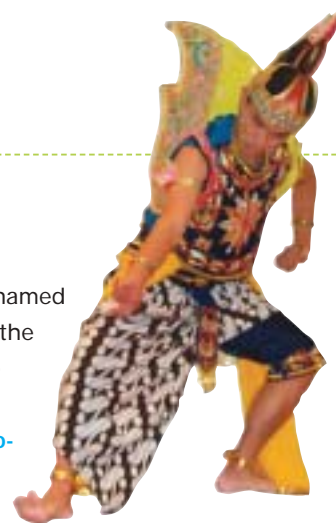
HONORED Mānoa philosopher **Eliot Deutsch** with the Vedanta Sudhakara degree of the International Congress of Vedanta; Mānoa physicist **Peter Gorham** as U.S. Department of Energy Outstanding Junior Investigator; Hilo's **Terrance Jalbert** with the Allied Academies Association Distinguished Research Award; Mānoa's Director **Klaus Keil** with the Microbeam Analysis Society's Presidential Science Award; Mānoa horticulturalist **Richard Manshardt** and UH alums Dennis Gonsalves and Maureen Fitch with the Alexander von Humboldt Foundation Award; Mānoa's **François Roddier**, with the Astronomical Society of the Pacific's Muhlmann Award. ELECTED Nursing Assistant Professor **Jane Kadohiro**, president of the American Association of Diabetes Educators; Engineering Professor **C. S. Papacostas**, to the executive board of the National Local Transportation Assistance Program Association. SELECTED Ethnopharmacologist **Nina Etkin** to meet Chinese Premier Zhu Rongji at the International Conference on Science and Technology in Biodiversity Conservation and Utilization; ROTC SSgt **Kent Keiser** as finalist for the Lance P. Sijan USAF Leadership Award; Mānoa poet **Frank Stewart** to represent the U.S. at the Asia-Pacific Conference Workshop on Indigenous and Contemporary Poetry; Mānoa **Michael Taleff** to edit the *Journal of Teaching in the Addictions*; School of Medicine's **Bruce Wilcox** as editor-in-chief of the journal *Ecosystem Health*. INDUCTED Mānoa's **David Callies** and **Tom Dinell** as fellows in the American Institute of Certified Planners; Pacific Biomedical Research Center's **Margaret McFall-Ngai** and **Edward Ruby** as fellows in the American Academy of Microbiology. APPOINTED **Kathryn Au** to the Dai Ho Chun Endowed Chair in Education; Olympic gold medalist **Herman Frazier** as Mānoa athletic director.

AWARDED Nearly \$7 million in U.S. Department of Labor funds to Maui CC for rural development and **job training** programs on five islands; \$1 million to the Mānoa botany department's Pacific Cooperative Studies Unit to conserve **endangered species** in the Mākua Training Area; \$270,000 over three years from the National Science Foundation to develop **undergraduate research experiences** in ecology and natural resource management at Hilo; \$3.4 million from the Air Force Research Laboratories to build a Panoramic Survey Telescope and Rapid Response observatory to track potential **killer asteroids** that could endanger earth.

PUBLISHED *The Absolute Beginner's Guide to Buying a House* by Mānoa Professor of Real Estate Nicholas Ordway; *Dialogue of Civilizations: A New Peace Agenda For A New Millennium* by Mānoa Professors Majid Tehranian and David Chappell; *Hawai'i Becalmed: Economic Lessons of the 1990s* by Mānoa Associate Professor of Public Administration Christopher Grandy; *Hawai'i's Russian Adventure: A New Look at Old History* by Hilo Associate Professor of Anthropology Peter Mills; *Honolulu Cop: Reflections on a Career with HPD* by West O'ahu lecturer Gary Dias; *O si Manu a Ali'i: A Text for the Advanced Study of Samoan Language and Culture* by Mānoa lecturer 'Aumua Mata'itusi Simanu; *Pacific Landscapes: Archaeological Approaches* co-edited by Professor of Anthropology Michael Graves with Thegn Ladefoged (PhD '93, MA '87 Mānoa); *Tears of Longing: Nostalgia and the Nation in Japanese Popular Song* by Mānoa Associate Professor of Anthropology Christine Yano (PhD '95, MA '88, MA '84 Mānoa); *Tomás Gutiérrez Alea: The Dialectics of a Filmmaker* by Mānoa Assistant Professor of Spanish Paul Schroeder.

SELECTED A 500-acre parcel makai of the H-1 Freeway in Kapolei for a permanent **West O'ahu campus**.

PLACED Mānoa Dance Ensemble's Ben Arcangel, named **Outstanding Performer** at the National American College Dance Festival; College of Engineering's **robotic micro-mouse** "Death Star," 2nd in regional competition; architecture graduate **Outstanding dancer Ben Arcangel** Tiffany Lee's "Charlie and the **Amazing Oompa-Loompa Adventure**," 2nd in the national Walt Disney Imagi-Nations 2002 design competition; four Hilo undergraduates' poster on **water research**, top honors from the international Chemistry for the Protection of the Environment.



Outstanding dancer Ben Arcangel

ESTABLISHED An associate in applied science in **opticianry** at Leeward CC; a bachelor of arts in **Philippine language** and literature at Mānoa and in **performing arts** and in health and **physical education** at Hilo; a bachelor of science in **marine biology** at Mānoa; a master of arts in **counseling psychology** at Hilo; a master of **law for foreign professionals** at Mānoa; certificate programs in **e-commerce technology** and business at Hilo and in disaster preparedness and **emergency management** at West O'ahu.

SOLD OUT \$150-million in **revenue bonds** to finance construction of a new medical school and research park in Honolulu's Kaka'ako Waterfront after UH received an A+ rating from national financial agencies.

INCREASED Fall enrollment, up **2,300 students** or nearly 5 percent system-wide; the number of students **pursuing double majors**, a national trend also apparent in the UH system.

DEDICATED **New Windward CC facilities** including Hale 'Ākoakoa campus center, Hale Palanakila humanities building with the Palikū Theatre and a NASA flight-simulator training room; the refurbished **multi-hued track** to be used by Mānoa's Rainbow Wahine track team; an **addition to Hamilton Library**; Outreach College's **UH Downtown** in Honolulu; **Pacific Media Center** at Honolulu CC.

LAUNCHED The **Cinematic and Digital Arts Program**, to be led by Hollywood producer Chris Lee and Mānoa Professor of Theatre Glenn Cannon; *Ka Ho'oilina: Puke Pai 'Ōlelo Hawai'i*, a **new bilingual language journal** edit-



ed by Kalena Silva, director of Hilo's Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language.

HOSTED Veteran **White House correspondent** Helen Thomas, Israeli peace advocate Lova Eliav and others to speak at UH campuses; prominent **Chinese artist** and MacArthur grantee Xu Bing as artist in residence at

Mānoa; **education officials from Thailand and Malaysia**



Interactive exhibit by Xu Bing

who want to establish UH-style community colleges.

GARBED Mānoa's Marching Band in its **first new uniform** in 22 years, a green-and-black costume designed by one of the drummers.



New uniforms

PLEDGED **Integrity, professionalism, civility and justice**, by 100 incoming students in a

new tradition at the William S. Richardson School of Law administered by Hawai'i Supreme Court Chief Justice Ronald Moon.

CONFERRED **Hilo's first master of arts**, the nation's first MA in an indigenous language, on Hiapo Perreira; Mānoa's **first doctorate in nursing**, on Wynetta "Bunny" Carl-Matsuura, who studied shaken baby syndrome.

RECENT DISCOVERIES

Most Hawai'i families practice at least four of six **behaviors of strong families** despite modern stresses and economic pressures, according to a survey by Mānoa's Center on the Family.

New findings confirm that, unlike other high energy particles, **neutrinos oscillate between types**, explaining the long-observed deficit of neutrinos from the sun, according to analysis of experiments in Japan's KamLAND reactor by UH's High Energy Physics Group researchers and colleagues in the U.S. and Japan.

A rare **zoo of at least 19 mini-comets** trail behind

comet 57P/du Toit-Neujmin-Delporte, indicating it suffered a catastrophe violent enough to break off many pieces of its nucleus, according to Institute for Astronomy observations from UH's 2.2-meter telescope. Combining GPS data on the amount of water vapor in clouds with meteorological data improves the ability to **forecast lightening** using a UH-developed Lightning Index being refined at Kennedy Space Center.

Several new **ship and plane wrecks** have been charted in the Northwestern Islands in a UH team's marine archaeology survey.

Correspondence *continued from page 5*

World War II. We met again when we signed up for pottery classes while our wives were full-time students under Claude Horan. Our primary purpose was to be close to our wives; however, both of us gained valuable experience doing clay sculpture and tiles. His influence on my work was such that I produced two terra cotta pieces that were reminiscent of his Mexican period, pieces that I still treasure over 50 years later. It was due to his encouragement that I was able to do them.

Enclosed is a small donation for continued development of interest in the arts by *Mālamalama*. Please accept this in memory of Joan Wilson, who was studying for her

MA when I made her move back to the mainland in 1951. She continued in ceramics until her death.

Conrad Wilson, Colorado Springs

I enjoy receiving and reading *Mālamalama*. It brings back pleasant memories of my years at UH and the East-West Center. Thanks for sending the publication.

George Lovelace ('74, '83 Mānoa), Seattle

Editor's note: We lose track of some UH alumni because of moves, name changes and other circumstances. If you know alumni who aren't receiving *Mālamalama*, encourage them to send their address to ur@hawaii.edu or *Mālamalama*, 1627 Bachman Place BA2, Honolulu, HI 96822.

The University Brand

Since March, Brook Gramann (BA Mānoa) and Gloria Garvey of the Hawai'i firm Brand Strategy Group have been assisting the UH System develop a consistent, cohesive visual identity and message based on our brand. Here they answer questions about the process.

What is branding and what does it have to do with a university?

When constituents of a university ask any of the following questions, it is the brand they are concerned with—What does the institution stand for? What are its values, attributes, capabilities and strengths? What expectations does its name evoke? What value does it deliver?

Often confused with logos, names and taglines, a brand is actually the promise that you make to your customer, a bond based on values that helps cement your relationship. Logos, names, etc. *represent* your brand identity.

Can a diverse system of community colleges, university campuses, graduate schools and special programs have a singular brand promise?

The UH System is diverse, but it shares many common values, and these are the foundation on which the brand promise is built. These values, expressed in the system strategic plan, include aloha and respect for the land as well as those important to an academic institution's success, including academic freedom, institutional integrity, access and accountability. While every value is not put into practice every day, people associated with UH believe in its strength and considerable potential.

How can our brand help us build a strong and seamless UH system?

If the values articulated in the UH Strategic Plan are compelling and embraced by everyone associated with the university system, the brand promise will be evident to those who come in contact with the system. The plan's first three values—aloha, collaboration and respect—can help address differences of opinion as well as specific problems endemic to the system. However, with at least 150 different logos at use in the UH System, our identity as a system unlike any in the world gets lost in the visual chaos. Bringing the UH brand to life requires a powerful visual identity with a common brand architecture, typography and logo.

How will the new visual identity be created?

Robert Rytter and Associates was selected from 14 graphic design firms in four states for its expertise in building educational institution identities. Bob Rytter and his head designer visited every campus and met with faculty and students. They will work closely with a system-wide advisory committee to create a brand identity built on the brand promise.

How can I find out more and provide my input?

Watch for updates—including the final design proposals—at www.hawaii.edu/ur/brand.htm. If you do not have Internet access, call 808 956-5799.



2002 Regents' Medal Award Recipients

Excellence in Teaching

Michael Bitter, history, Hilo

Beei-Huan Chao, mechanical engineering, Mānoa

Darryl Dela Cruz, culinary, Maui

Eric Denton, religion, Kapi'olani

John Goss, geography, Mānoa

Amy Hubbard, speech, Mānoa

Pualani Kanahale, Hawaiian studies, Hawai'i

Valli Kanuha, social work, Mānoa

Joy Logan, Spanish, Mānoa

James Leo McFarland, psychology, Kaua'i

Jin-Ho Park, architecture, Mānoa

Aaron Tanaka, computer electronics and networking technology, Honolulu

Ingelia White, biological sciences, Windward

Gailynn Williamson, philosophy, Leeward

Excellence in Research

Margaret McFall-Ngai and Edward Ruby, Pacific Biomedical Research Center

Stephen Olsen, physics, Mānoa

Marc Fossorier, electrical engineering, Mānoa

Identified in the Blink of an Eye

... the shape of a hand or even the way you use a mouse. That's biometrics.

by Janine Tully

Imagine a car device that alerts drivers that they are about to fall asleep at the wheel. Or a computer mouse that not only monitors your concentration and stress level but identifies who you are. How about a computer system that automatically filters information according to the user's needs.

Science fiction? Hardly. It's biometrics, a computer technology that registers physical and behavioral responses through the iris, retina, fingerprints, facial structure, voice—even hand pressure and shape, and then compares the collected data against a database.

While the technology may not yet flag potential buyers (picture the personalized billboard messages pitched to a stressed-out Tom Cruise as he walks by in the film *Minority Report*), some biometric devices are already operating in Honolulu and on the U.S. mainland. Iris scanners check tenants' identity in an apartment building on Ala Moana Boulevard; Hawaiian Airlines is testing hand geometry to identify employees, and finger scanners are slated for installation at the Honolulu Federal Building.


And, for the last two years, scientists from Mānoa's Department of Information and Computer Science

have been applying biometrics to study cognitive overload in specific situations.

"Computers are capable of instantly providing large amounts of information, but if too much is presented at once, human efficiency in processing this information can drop dramatically," says Martha Crosby, a member of the UH team working on cognitive assessment. "A primary goal of this project is to come up with strategies that people can use to extract information from computer screens more efficiently." Tasks that measure cognitive awareness vary in difficulty—from simply searching for information to analyzing complex data and problem-solving.

"We have noticed that there's a strategic pattern individuals use when tackling a task," says Crosby. "If you know what you're going to do, technology can help you do it. You can tailor the software to your needs, optimizing learning and performance."

These groundbreaking experiments are taking place in the Adaptive Multimodal Interactive Laboratory, a small room on the third floor of Mānoa's Pacific Ocean Science and Technology building. The lab is filled with computer equip-



Physical and behavioral responses of the eyes, hands, face and voice could be applied in education, medicine, economics, banking and e-commerce

ment, video cameras, computer screens and two of the most important pieces of hardware: an eye-tracking system and a computer mouse with electronic sensors. These tools measure people's physical and psychological responses, including eye fixation, blink rates and hand pressure. Used with sensors attached to the hand or finger, the equipment can also measure blood flow, heart rate and skin temperature.

Eye-tracking is the gold standard for measuring attention, says Curtis Ikehara, a psychologist with a computer and electronics background. "If we know where you're looking, we can tell if you're paying attention." Eye-tracking can also help determine what "catches people's eyes," he adds, making it ideal for marketing. However, at about \$20,000 apiece, eye-tracking systems are mostly used for research.

To test what people see in an open environment, UH researchers use a portable eye-tracking system that consists of a tiny camera attached to headgear that makes the subject look like a *Star Trek* character. The camera follows the movements of one eye as the person walks around. The image is then transmitted to a video recorder and displayed on a screen.

As people focus on specific points—a chair, a window, a person—their gaze jumps from point to point in rapid succession. Because our eyes move faster—in milliseconds—than we can perceive, we have the impression that we are looking at a room as a whole.

Funded by the Defense Advance Research Project Agency and the

Office of Naval Research, the project aims at developing software that detects information overload. It is of particular interest to the military, where clear thinking at times of crisis is critical. Pilots have to look at many instruments at once, sometimes under duress, says principal investigator David Chin. A device that detects their cognitive load and takes over some of the tasks would be of great use, he says.

People click in ways that are nearly impossible to replicate, but are very recognizable to UH's patent-pending Pressure Mouse

Biometrics has many applications in education, medicine, economics, banking, e-commerce and for identification purposes. Developed about 40 years ago, the technology has drawn renewed interest as a security measure since the Sept. 11, 2001 terrorist attack spurred research in identification methods.

At Mānoa, Ikehara has developed a computer mouse (known as the Pressure Mouse) that can identify the user by the way he or she clicks it. "The mouse is nothing to look at," he says, pointing to the generic-looking hardware. "It looks like any other mouse." Yet it packs a wallop. Electronic sensors affixed inside the mouse register hand pressure, speed and number of clicks exerted on the mouse's buttons.

No current technology assures 100 percent recognition, says Ikehara, but the Pressure Mouse could serve as a computer signature. "It's nearly im-

possible to replicate human movements. People click the mouse in very recognizable ways." The Pressure Mouse also offers continuous authentication and it's cheap, says Chin. Mass production of the hardware would add only \$10 to \$20 to the cost of a mouse—bringing potential applications, such as detecting cheating in exams administered online, into the realm of possibility.

While other groups, including the MIT Media Lab, are exploring biometric computer mice, UH may be the only one to have tucked sensors inside the mouse and analyzed data obtained for identifica-

tion and cognitive state assessment. A provisional patent has been filed by the university.

The UH research team presented its findings at a conference on biometrics, the first of its kind in Hawai'i, sponsored by Windward CC in November. The conference focused on homeland security, identity theft, administrative and criminal applications, e-commerce and privacy issues.

Along with the excitement about the new technology is concern about its intrusive nature and Orwellian connotations. "The potential for misuse is there," Ikehara acknowledges. "To ensure privacy, personal biometric data should have safeguards similar to those accorded to personal medical data." Fortunately, he adds, the federal Privacy Act is already in place to safeguard appropriate release and protection of such information.

Janine Tully (BA '87 Mānoa) is a Hawai'i freelance writer.

The mummies of Bahariya provide an unprecedented look at life in ancient Egypt



A MUMMY'S TALE

A donkey stumbles in the Sahara Desert, launching two UH Mānoa professors on what may be the most significant archeological find in Egypt in half a century

Near the Bahariya oasis, 260 miles southwest of Cairo, lie the tombs of approximately 10,000 mummies, until recently hidden beneath the desert sands. These mummies represent a span of about 600 years, from the 3rd century BC to the 3rd century AD, a timeline that covers both the Greek and Roman conquests of Egypt. Unlike the residents of royal tombs in famed pyramids, these mummies come from all strata of society—the rich, the poor and the middle class.

Last summer, DeWolfe Miller, a professor of epidemiology, and Robert Littman, a professor of classics, made a preliminary survey of the Bahariya oasis. Accompanied by Mānoa students, they worked out the logistics for a three-year project that will begin this year. Miller has worked in Egypt for about 25 years on the control of parasitic and infectious diseases. Littman is a historian specializing in ancient medicine. He also teaches a class on Egyptian hieroglyphics.

“There’s never been such a large find of a series of tombs,” Miller says. “There are so many mummies. Now we have a window into the past of health and disease among the Egyptian population.” The records of Pharaohs’ lives decorate the walls of their elaborate tombs and reside in ancient texts. For the majority of ancient Egyptians, however, documentation is scarce. The mummies of Bahariya present an almost unheard of opportunity to systematically examine a substantial cross section of the society. “This will answer questions about the health and disease of a pre-modern population more than anything that’s been done in the last several hundred years,” Littman says.

Leading the expedition is Zahi Hawass, chair of Egypt’s Supreme Council of Antiquities and internationally renowned as the premier authority on Egyptian archaeology. Hawass discovered the Bahariya mummies in 1996 after a donkey tripped on a tomb. Littman and Miller will work with the council’s



They don’t represent royalty, but mummies like those pictured here will provide a wealth of information to epidemiologist DeWolfe Miller, left, and historian Robert Littman, who will use CAT scans to study the health of the ancient population

leading archaeologists, conservators and excavators. The two professors have also assembled a team of researchers including Egyptologists, paleopathologists, epidemiologists, bioarchaeologists, radiologists and physicians.

The team plans to use a portable CAT scanner to examine 300–500 mummies. The CAT scan will provide a detailed picture of the body without disturbing the wrappings. Researchers will have a complete, three-dimensional view of the mummy itself, including the entire skeletal system. “This kind of tech-

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Chandler's List

A social work professor reflects on eight years in government service

Twice a week, Susan Chandler exercises with a creative movement dance company at the Mō'ili'ili Community Center. As other participants shut their eyes for the closing meditation, Chandler gazes through arched windows at the clouds.



Energy interspersed with contemplation. It is as much a description of her life as it is of her days as state director of human services.

"I have a good pedigree," she says with a laugh. Born to the first woman president of the Brooklyn Bar Association and an activist labor attorney father, she was steeped in social change. She thought she'd follow in her father's footsteps, but experiences during her master of social work studies at Mānoa demonstrated an affinity for policy. She completed her doctorate at UC Berkeley and returned to UH as a faculty member, developing the School of Social Work's community mental health curriculum, earning the Clopton Award for Service to the Community and completing a public policy

certificate at Syracuse University's Maxwell School.

In 1994 Chandler got a call from newly elected Gov. Ben Cayetano. "We'd never met. I didn't work on his campaign or any of the things you're supposed to do." Still, he wanted her to interview for the director's job. After a feisty argument with his cabinet she got another call. She obviously didn't know much about how government works, he said, but he'd give her a good deputy (Kate Stanley was the best, Chandler says) and made her

this promise: Make mistakes that benefit people and he'd back her a hundred percent. Make mistakes that benefit herself and she'd be fired. "He truly believes the role of government is to help people in need," Chandler says—and he proved it by protecting her budget when other departments were being cut.

Chandler believes she delivered on the governor's commitment. A streamlined process increased the number of children adopted from 35 to 300 a year. The number of slots in licensed child care nearly doubled and the number of families receiving child-care payment assistance increased ten-fold. Healthcare coverage was extended to legal immigrant children excluded from the federal program. Residential alternatives were expanded for people with long-term care needs. The number of families on welfare was reduced by 34 percent and the average length of assistance cut in half—without restricting eligibility or denying recipients educational benefits. Community-based offices and 'ohana conferencing now involve family members in decisions that protect the welfare of children. The successful model is attracting national attention—a pleasant shift from the media scrutiny and public outcry over child abuse cases.

"When the media asked about children who had been abused while under Child Protective Services, my mistake was trying to explain too much," Chandler reflects. "You want to express outrage at the tragedy. You want to protect staff who really are doing their best. You want to say you'll be doing an investigation. You want to explain that we're never going to be able to predict family violence. But when you say all that, the media only reports a small part and the rest gets lost." Chandler learned to think more carefully about the phrases that would be picked up as sound bites. Her department improved investigations of child welfare cases.

"People would tell me, 'Oh, you're that poor lady who's getting picked on.' I didn't feel like a poor lady who's getting picked on. I felt like someone trying to ensure that people have services," she says. "My father said, 'There are only 50 people in the country who do what you do.' This was a tremendous opportunity—a learning opportunity, an opportunity to serve a state I have tremendous love for."

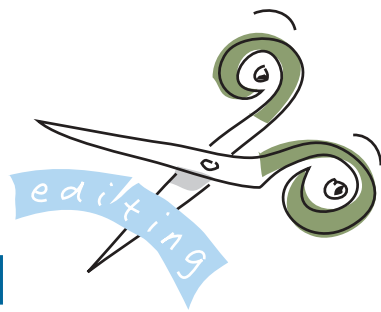
Back in academic life, Chandler hopes to write about what she's learned. She also hopes to be part of UH's budding Center for Public Policy, which focuses on research that contributes to useful, implementable policies that respond to local needs.

"I have a dream," Chandler says with vigor. "I think this university can sing. I'd like to help it sing." 🎵

by Cheryl Ernst, creative services director in External Affairs and University Relations

**My father said,
"Only 50 people
in the country do
what you do"**

—Susan Chandler



So You Want to Write a Book

by Jennifer Crites

The writer writes in order to teach himself, to understand himself, to satisfy himself; the publishing of his ideas, though it brings gratification, is a curious anticlimax.

Alfred Kazin, *Think*, February 1963

MORE THAN 50,000 NEW BOOK TITLES ARRIVE IN U.S. BOOKSTORES EACH YEAR. It seems everyone has written or is planning to write a book, as if the American Dream is not complete without a book-publishing contract. Count me among the hopeful. For several years I attended writers' conferences, eager to mingle with editors, agents and writers who had—gasp—actually had their books published. I listened to success stories, attended classes, asked questions and filled notebooks with practical advice. I paid for 15 minutes with an agent. I read books on how to prepare a proposal. I promised myself that one day I would be a published author.

"I've talked to people who say they want to get published, but they haven't written anything and don't read much," says Nora Okja Keller, UH graduate (BA '88 Mānoa) and author of two books: *Comfort Woman*, which *Los Angeles Times* named one of the best books of 1997, and *Fox Girl*, released in 2002. "You have to be a good reader. Then you have to keep writing, keep producing, keep polishing."

Revision is where the story—and the fun of writing—really begins, agrees Rodney Morales, assistant professor of creative writing at Mānoa and the author of *When the Shark Bites*, a novel set on Kaho'olawe. "My first drafts are rough, but I can't

linger on each sentence and make it perfect the first time around."

Reading. Revising. Most successful authors add a third R, research, as the key to a believable story. Research provides Keller with structure and framework; then she builds the characters. "I wrote three novels about WWII but I wasn't in WWII," says Ian MacMillan, a Mānoa professor of English. "I had to do the research before I could imagine what it was like." Author and UH graduate student Robert Barclay (BA '96, MA '99 Mānoa) learned that crucial lesson from MacMillan. "Ian taught me to put myself in the skin of the characters, write through their senses and focus on what they're thinking." Barclay's historical novel, *Melal*, written mostly in a series of writing courses at Mānoa, was a Barnes & Noble 2002 Discover Great New Writers selection and a finalist for the \$15,000 Kiriya Prize for fiction relating to the Pacific basin.

MacMillan advises would-be novelists to start by writing short stories, trying different voices and discovering a variety of ways to represent experience. "When you write a good one, send it out and get it published," he says. It worked for former KITV reporter Cedric Yamanaka (BA '86 Mānoa), whose collection, *In Good Company*, won a 2001 Cades Award for Literature. Yamanaka credits MacMillan and Mānoa English professor Craig Howes for helping him focus and nurturing his interest. "They let me believe that I was a decent writer. That time at UH changed my life."

"Submitting work to literary journals like UH's *Hawai'i Review* is a

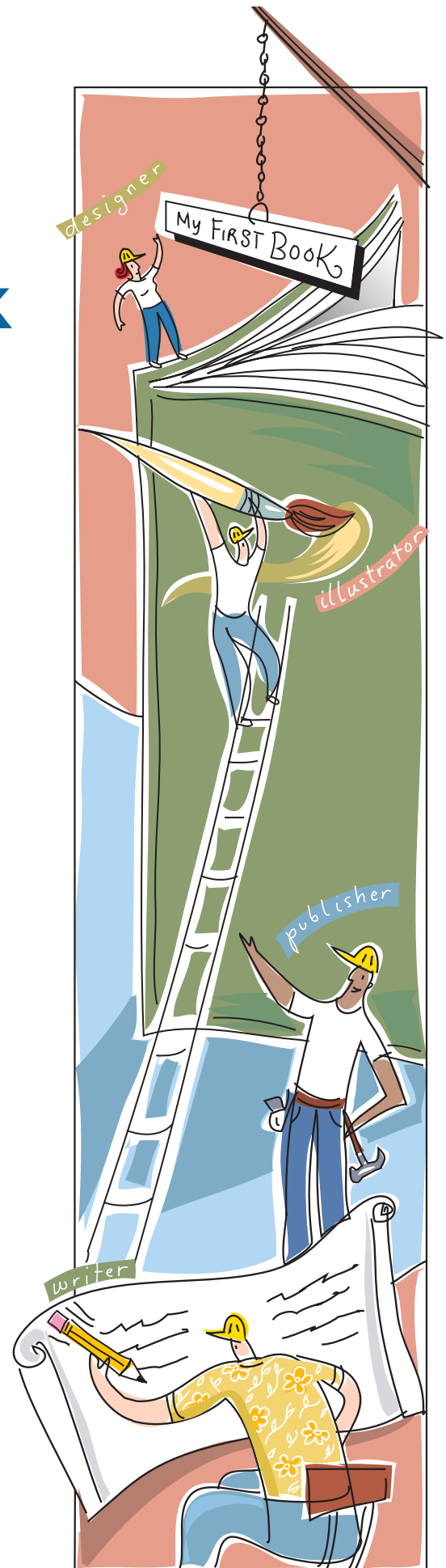


Illustration: Christine Joy Pratt



good place to start," says Bamboo Ridge Press founder and editor Darrell Lum.

"The Good Shopkeeper," a short story by Samrat Upadhyay (PhD '99 Mānoa) was published in *Scribners Best of the Fiction Workshops 1999* and then *Best American Short Stories*. The exposure led to a contract with publisher Houghton Mifflin and publication of his novel, *Arresting God in Kathmandu*.

Hawai'i publishers prefer to work directly with authors, but the New York publishers won't read an unsolicited manuscript, Keller observes. "An agent will get it in the door and take care of all the legalities." Keller and Barclay found agents through referrals, but targeted letter writing works, too, she says. Her agent found three publishers eager to bid for *Comfort Woman*. "That was exciting. For two days I waited by the phone while my agent kept calling with all the offers." Barclay's agent originally shopped his manuscript around New York. Publishers liked it, but didn't think a story set in the Marshall Islands would sell. On the advice of a friend, he turned to University of Hawai'i Press. "It was a good move," he says. "The editing staff there was awesome."

"We're publishing more local literature now," says William Hamilton, director of UH Press, which markets books in Hawai'i and internationally. UH Press receives almost 900 book proposals a year. It only publishes 80 to 100 of those, based on recommendations from its reviewers and editorial board.

MacMillan has seen his share of rejections. "You have to develop a very thick skin," he says. "A short story I wrote in 1964 made 86 formal trips, submissions, in 38 years. I'll send it out again because I think it's a good story. You've got to believe in your-

self." Island Heritage publisher Dale Madden recalls an author whose children's book was initially turned down. When the author called to ask why, he told her how the story could be improved. Despite a second rejection, the author persisted, and the third version became one of Island Heritage's best sellers.

"Don't take a rejection personally," advises Ted Gugelyk, former dean of students at Maui CC and director of UH's Pre-Law Program. Now retired, Gugelyk runs Anoa Press, a company he set up to publish books with a surfing or ocean theme.

"Rejection has more to do with the market than other factors. A publisher has to balance the checkbook. I have to be very careful who I choose. Each book is a gamble."

Authors, too, should choose wisely. Keller turned down an agent who focused on money. "It's more important to work with somebody who will represent my work in the best way," she says. "Submit your proposal to publishers who handle books you like to read," advises Lum.

Once a manuscript is accepted for publication, the author signs a contract agreeing to terms. Hawai'i publishers don't offer advances, but most pay royalties of 4–10 percent of the book's sale price. Authors with clout—a sure seller or proven sales record—can negotiate. Few publishers offer advances on royalties, says MacMillan, whose novel, *Village of a Million Spirits*, was published by Steerforth

Press. "How a publisher promotes the book is far more important (than an advance)."

The writer is usually expected to help promote the book, he adds. "Give as many readings and talks as you can because that sells books. Let newspapers know the book is available for reviews without being oppressive. Radio is good, too." UH Press's Hamilton has known authors who will "run through a brick wall to promote their books." Keller's first inclination was to run away. "As a writer, I thought I could stay home and write; I wouldn't have to go out in public and speak to people." She was horrified when her publisher sent her on a 10-city tour to promote *Comfort Woman*, complete with media interviews and book signings. "I was terrified that people would ask questions I wouldn't be able to answer, so at the end I would say 'thank you' and walk off. Now I'm more comfortable.

"There's so much pain mixed with the pleasure of writing a book," she muses. "But at the end there's satisfaction in being able to create order from chaos and make sense of something." Perhaps that's one reason so many of us make the attempt, despite the odds. "Give it your best shot," encourages Yamanaka. "Listen to your heart, and don't give up." 📖

Editor's note: Writer Jennifer Crites (AA '90 Windward, BA '92 UHWO) didn't give up. In July 2002 Mutual Publishing released her non-fiction nature book, *Sharks and Rays of Hawai'i*, co-authored with Waikiki Aquarium Acting Curator Gerald Crow.

Resources for Writers

Windward CC Writing Retreats: nine Saturdays a year; \$5; 808 235-7433 or 808 235-7400

Bamboo Ridge Writers' Institute: UH Mānoa Campus Center; each October; www.bambooridge.com or 808 626-1481

Hawai'i Book Publishers Association one-day course, How to Get Published in Hawai'i; early June on the UH Mānoa campus; www.hawaiiibooks.org or 808 956-8244 (Outreach College)

Maui Writers Conference: Labor Day weekend; www.mauiwriters.com, 1-888-WRITER3 or 808 879-0061

National League of American Pen Women conference and meetings; 808 627-1079

Romance Writers of America, Aloha Chapter: workshops and meetings; Āina Haina Library; 808 735-9610

National Writers Association, Honolulu Chapter; 808 845-9585

Service with a Song

A Mānoa professor shares the healing power of music

Every Monday morning for more than a decade, Arthur Harvey has performed for a special audience. He commands the attention of a few, is joined in harmony by some and simply provides reason to get out of bed for others. For an hour he plays piano and sings a variety of tunes and audience requests. He doesn't do it for money. He doesn't do it for fame. The Mānoa assistant professor and coordinator of music education is living out his commitment to service and his passion for studying the healing power of music and its effect on the brain.

The long-term care patients who attend the weekly concerts at Lē'ahi Hospital aren't the only ones on the receiving end of Harvey's generosity and goodwill. His calendar is crammed with classes on campus; speaking engagements for the American Cancer Society, National Alliance for Mental Illness and other organizations, and service as director of music and worship at Calvary by the Sea Lutheran Church in Honolulu. "I am called almost every week to speak to an organization," he says.

People are eager to learn about—and Harvey is committed to share—his findings from years of research into the effect of music on the brain. "I have always been very interested in figuring out why music affects people so powerfully," he explains. He has published countless journal articles and essays on the healing and therapeutic powers of music, the benefits of music in working with special needs students and the use of music to improve and increase learning capabilities. His book, *Learn with the Classics: Using Music to Study Smart at Any Age*, and accompanying music CD, offer tools and techniques on improving learning skills for students, parents and teachers.

Research has shown that music can stimulate various parts of the brain, providing stress relief, lowering blood pressure and affecting moods. Music has provided distraction from discomfort during childbirth and eased pain after surgeries. It has produced a positive impact on patients with severe ailments and diseases, including

Music can lower blood pressure, ease pain, reduce seizures, enhance learning and may even help develop intelligence

seizures, Parkinson's disease and schizophrenia. There is also considerable evidence that music has a significant impact on the development of the human brain and that it plays a role in the development of intelligence. Numerous studies show that it can enhance students' cognitive development, critical-thinking skills, problem-solving abilities and communication and social skills.

The father of 5, grandfather of 13 and great-grandfather of 3 attests to the power of music

in his own life. Harvey was a high school graduate at 15 and a college graduate at 19. He claims music as a major influence in his life for as far back as he can remember.

With the ability to play more than 30 instruments including the piano, organ, trombone, euphonium and trumpet—"not all of them equally well," he admits—he uses his knowledge and talent to continue to explore the power of music "outside the borders of traditional music education."

Reflecting on the three focus areas of a university professor—research, teaching and service—Harvey ranks service as his greatest passion. "It's the unique contribution I've given to the state and the university."

The audience at Lē'ahi Hospital would definitely agree. 🎵

by Kristen Cabral, a UH External Affairs and University Relations public information officer



Arthur Harvey performs solo or with fellow musicians for hospital patients each week and lectures frequently on the benefits of music

Coming of Age with the Community Colleges

A conversation with Joyce Tsunoda



The UH Community Colleges were just four years old when Joyce S. Tsunoda began teaching at one of the campuses. They were still seven adolescent campuses when she stepped into the role of chancellor two decades ago—rummaging for facilities, struggling for funding and searching for their identities. Now, as Tsunoda takes on a new role in international education for the UH System, she reflects on her years at the helm.

The woman used to wearing two major titles for the past eight years—UH senior vice president and community colleges chancellor—grew accustomed to challenge at an early age. Tsunoda was born in Osaka to a second-generation Japanese American from Hawai'i and a professional baseball player from Japan. World War II called her

father to war, leaving her with her mother and three sisters alone in Manchuria. After the war, the family sought a new life in Hawai'i. Tsunoda knew no English when she arrived on O'ahu. Help from public school teachers enabled her to earn a scholarship to Mānoa. An avid interest in chemistry led her to a PhD in biochemistry and work on campus as a research associate.

In 1968, newly appointed Provost Leonard Tuthill invited Tsunoda to an empty field on the edge of Pearl Harbor. He asked her to join the faculty of the community college they planned to build there. Tsunoda taught chemistry and became an associate dean at Leeward CC. Eight years later, she was named provost of Kapi'olani CC, where she led the campus through design for a new Diamond Head campus, quelling community concerns and garnering legislative support. In 1983 she became chancellor. Agriculture was in decline, and the state was overly reliant on tourism. The Japanese investment bubble was about to burst. Yet, UH Community Colleges have been successful—stimulating new technologies and bolstering economic engines, such as Hawai'i's regional cuisine and the aviation industry; implementing new programs and developing meaningful partnerships.

MĀLAMALAMA: Why did you change your focus to educational administration?

Joyce Tsunoda: At Leeward CC I helped organize the faculty senate

and establish the college's curriculum, focus and goals. The more I learned about the quintessentially American, uniquely open-door philosophy of the community colleges, the more I realized I wanted to be involved in helping shape their future. I was nominated by then UH President Harland Cleveland to become the university's first intern in an American Council on Education professional development program. I experienced roadblocks, but I also became aware of the level of confidence my colleagues had in me.

M: What were the roadblocks?

JST: I had never experienced much ethnic or sexual bias in Hawai'i, but this was 1973 in San Francisco. I was interviewed by two groups of



college and university presidents—all of them white men. They questioned me about my husband's feelings concerning my desire to be an academic administrator. None of the male candidates were asked such questions. So, when I was asked a similar question in the afternoon interview, I told the group firmly but politely that it was really none of their business. I was sure I blew the interview, but mostly I worried that I had disappointed President Cleveland and others who supported my nomination. I was one of only 7 women among 40 candidates selected, and I was the only Asian.

M: Even in 1982, you were one of the few Asian women at the rank of chancellor, isn't that so?

JST: That's probably true, but I never really viewed that as important. I was too busy trying to help the true underdogs—the community colleges—earn their rightful place in Hawai'i's higher education arena.

M: Why did you consider them underdogs?

JST: Gov. John Burns saw the importance of establishing a community college system and, with the legislature's help, did so in 1964. But the transition from technical and vocational schools to community colleges was rough. People thought community colleges were for folks who couldn't "make it" at four-year universities. There was no base of

support, no history, no tradition. Still, the need was there—the colleges grew exponentially in those first years. It was all the administration could do to provide instructors, classrooms and tools. Many major issues, such as articulation, program development, assessment and remedial education could not be properly addressed. There was still much to do when I came aboard.

M: Has the community college image changed?

JST: It certainly has. Through the 1970's UH Community Colleges were like youngsters waiting for someone to uncover their talents and nurture their strengths. People now realize we are not second place, we are a totally different place. We are the educational institutions that open doors. Whether it is in career development, getting a start toward a baccalaureate degree or just exploring personal interests, ours is a new tradition, built on transforming lives.

M: What are some of your major accomplishments as chancellor?

JST: Despite tough times, our campuses have been very effective in increasing access for students. Since 1982 we built more than a dozen new facilities. We are now on all the major islands with an array of credit and non-credit programs and have a strong distance education program. The colleges discovered their own identities. They have developed solid relationships with each other and their communities. They are recognized internationally as leaders in technology train-

ing, service learning, allied health professions and international education. We have been honored for championing diversity and advocating life-long learning. I'm very proud of that.



The community colleges are vital partners in the state's workforce and economic development efforts. They have demonstrated responsiveness to their communities and flexibility for their students. In turn, they've received government support to establish programs in information technology, biotechnology, diversified agriculture, hospitality and the latest healthcare fields—areas the state has identified for potential growth.

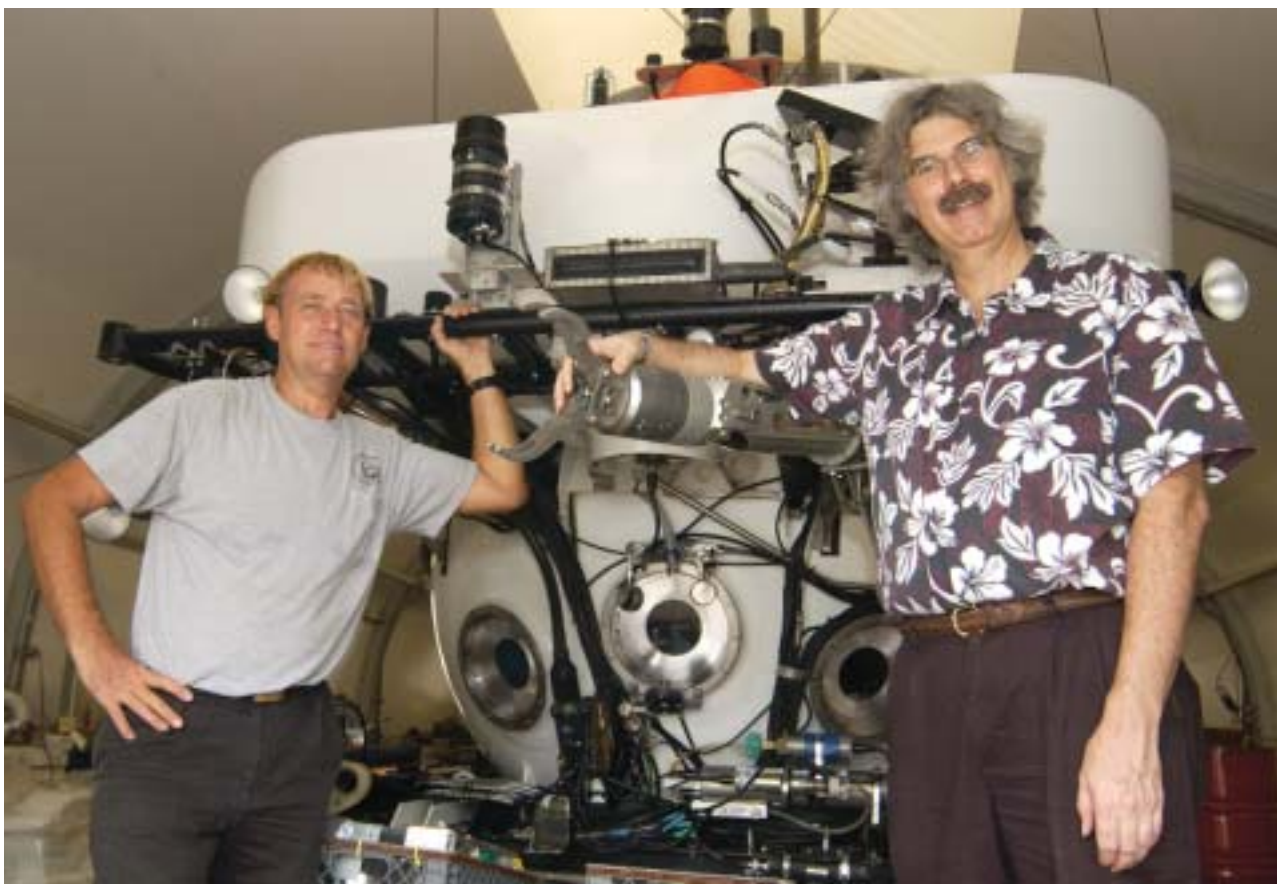
M: What lies ahead?

Collaboration—with individuals, with industry, state agencies and other educational institutions across the globe. We need to remain entrepreneurial. We must look beyond state funding, more aggressively seek

Continued on page 28

Joyce Tsunoda teaching chemistry at Leeward CC in the late '60s (top left), breaking ground for Kapi'olani's Diamond Head campus in the '80s (top right) and celebrating Hawaiian Airlines' donation of a DC-9 with Honolulu CC aeronautic maintenance students, staff and supporters in 2002





Midget Sub Mystery

A routine research dive solves a 61-year-old question about the first Pearl Harbor casualty of World War II

By Rita Beamish

When they set off for their training dive on a sunny August morning, researchers aboard two University of Hawai'i submersibles little dreamed that they would be celebrities by day's end. It was the end of their training week with the deep-sea submersibles—two of only nine such vessels worldwide. Crew members already were looking ahead to a busy dive season that would include scientific missions around Kaho'olawe and the remote Northwest Hawaiian Islands.

As they headed out from Pearl Harbor, the six scientists also knew that, because they would spend the rest of the dive season in other waters, this was their last chance to ply their perennial quest—the search for

a Japanese midget submarine that went down under a U.S. destroyer's fire on the morning of Dec. 7, 1941. It wasn't their job to find it—their work is marine, fisheries and undersea geological research—but they had made the midget sub their cause as well. They kept an eye out for it whenever they trained in the vast undersea debris field that contains sunken World War II detritus and scuttled military equipment near Pearl Harbor.

"We try to provide some other useful purpose while we're down there doing our tests and training," said submersible pilot Terry Kerby of the Hawai'i Undersea Research Laboratory (HURL), a joint project of Mānoa's School of Ocean and Earth Science and Technology and

the National Oceanographic and Atmospheric Administration. "When we go on our science dives, the second mission is to find the midget."

Kerby made sure his team members knew the midget's history: Crew members of the USS *Ward* had always maintained they shot and sank the top-secret sub as it headed into Pearl Harbor an hour before Japan's bombers unleashed their ferocious Dec. 7 assault. Without the submarine, the outcome of the encounter remained in doubt, as did the question of whether U.S. forces had actually fired the first shot in the Pacific phase of World War II.

The 15-foot UH submersibles were armed with HURL's new side-

The crew of the USS *Ward* insisted it sank a Japanese sub heading into Pearl Harbor an hour before the Dec. 7, 1941 attack. UH *Pisces* crews proved them right.

scan sonar maps showing bottom images, including a promising shape about the size of the elusive 78-foot midget. Maybe this one would solve the historical puzzle. “It could have been a rock or a ledge. There’s so much junk out there. It could have been anything,” Kerby said. “But we thought maybe this is it.” Acting Director John Wiltshire was doubtful. HURL crews had unsuccessfully searched the same area days earlier. “I thought this day would not be it,” he said. Added biologist Chris Kelley, “We were all around the target on the previous dive and it just didn’t seem possible that we missed it. However, Terry insisted that we never saw anything to rule it out, and we should give it one more try.”

The two submersibles, *Pisces IV* and *Pisces V*, conducted a two-vessel rescue exercise they had planned for three years. Then they turned to sonar tests and target identification. About three to four miles out, from 1,200 feet came the radio call from *Pisces V*: “We got it!” Data manager Rachel Shackelford had seen the midget on the sonar screen. She alerted Kelley and pilot Chuck Holloway. “My first glimpse was of the bow, specifically the torpedo guard, which is unmistakable. My heart started beating a mile a minute,” Kelley said. “I yelled out, ‘That’s it!’ and grabbed the mike to inform Terry” in *Pisces IV*. It was, he said, “an absolutely thrilling experience.”

Lit by the submersible spotlights, the midget sat serenely on the sandy bottom, sporting a four-inch hole just where the crew of the *Ward* said it would be. The jubilation was palpable. “On the radio we were being all professional,” Kerby said, “but we




Above: Stern view of the midget sub; the sub’s coning tower, lit by one of UH’s submersibles in the murky depths just outside Pearl Harbor

Opposite: Terry Kerby, left, and John Wiltshire use *Pisces IV* for Hawai’i Undersea Research Laboratory marine, fisheries and underwater geological research

were so excited we could hardly stand it.” Then, sobered by the realization that two Japanese crewmen were entombed inside, the researchers documented their find with video and photography.

Word of the find spread like lightning that day. Wiltshire received media calls from as far away as Ireland and Colombia. Japan and the U.S. State Department began discussions on what if anything should be done with the sub and its two unexploded torpedoes. Discovery Channel funded a return dive.

To the researchers, it was fitting that UH, after years of searching, should make the discovery despite past high-profile efforts by others. There was satisfaction in affirming the legacy of the *Ward* and its surviving crew. “At the end of the day, they were the ones who went out and met the enemy,” said Kerby. “These guys feel vindicated. I’m really glad we did it for them.”

See video and photographic images at www.soest.hawaii.edu/HURL/midget.html 

Rita Beamish is a Honolulu freelance writer.



UH's first permanent building, Hawai'i Hall, reopens this year after extensive renovation (see inset). Built in 1912, it has housed all aspects of university life, from locker rooms to libraries, and served as the setting for dramatic presentations and commencement ceremonies. New tenants: the Mānoa chancellor and Colleges of Arts and Sciences offices.

Tsunoda *continued from page 17*

grant money and continue to build partnerships. President Dobelle has made it clear he wants us to serve our students by becoming a truly seamless system. I believe our efforts to work together within the system, share resources and be entrepreneurial will expand our role in the Asia and Pacific region.



Tsunoda at Kapi'olani CC. She will coordinate UH system international education efforts

M: In 1994, you assumed responsibility for building the university system's international presence. Will you continue in that role?

JST: Yes. UH already boasts a strong reputation for excellence in the Asia/Pacific region—students from across the Pacific and Asia come to the community colleges for short-term training and training in information technology; Mānoa has strong international ties and its international business program is acclaimed worldwide;

Hilo continues to expand its international presence. We've all done well individually. By pooling resources and coordinating efforts, we can increase our presence in the Pacific and Asian communities tenfold. 🍷

Editor's Note: As Tsunoda pursues UH international objectives, the Community Colleges are restructuring. With appropriate support services centralized within the UH system administration, provosts at each campus become chancellors reporting, along with their four-year counterparts, directly to the UH president.

Mummy *continued from page 11*

nology will allow us to peer into the body and look at all the clues as to the disease processes going on at the time of death or disease processes that might have occurred and then healed," Miller explains.

Miller and Littman hope to also use the CAT scans to reconstruct facial features, in a process similar to the reconstruction of King Tutankhamen's face on a CNN broadcast this past summer. "We'll be able to do a much better job using three-dimensional CAT scans," Miller says.

The study will allow the team to construct a comprehensive picture of the health and disease of this population. This information will give insights to many other aspects of ancient life—population, food supply, diet, demography, social life and religion.

"It's going to be one of the most important studies done on mummies in the last 50 years, if not the most important study ever," predicts Littman. "This will put UH on the map in terms of Egyptology and the history of medicine." 🍷

by Heidi Sakuma, a Mānoa journalism and English major who is earning a minor in theater