In the last century, UH Mānoa has been home to many remarkable achievements that have benefitted society, both locally and globally. Here is a sampling of ways that the university has made a difference.

**Pioneering faculty**

1. **Frederick Krauss** joined UH as a professor of agriculture from 1911. He explored the viability of various crops and headed the Extension Service.

2. **Carey Miller**’s 1936 book on the nutritional content of Hawai’i fruit remains a standard.

3. **Doak Cox** helped plan UH’s Hawai’i Institute for Geophysics and establish the Joint Tsunami Research Effort, Natural Hazards Group and Water Resources Research Center.

4. **Albert Tester**, a UH zoologist from 1948 until his death in 1974, developed an international reputation for early research on tuna and extensive work on shark sensory systems.


6. **Klaus Wyrtki** identified key components of the El Niño phenomenon and produced the most comprehensive and first computer-made atlas of the Indian Ocean.

7. **Hampton Carson** joined UH’s genetics faculty after working with the Hawaiian Drosophila Project in 1963. His research on evolutionary genetics earned international acclaim.


9. **George P. L. Walker**, first to hold the Gordon A. Macdonald Chair in Volcanology, is considered the father of modern volcanology for his work on basaltic volcano formation around the globe.

10. **John Craven** established the Natural Energy Laboratory at Keāhole Point, proposed a floating city and predicted the Navy would stop bombing Kaho‘olawe if Hawai’i people would exert political pressure.

11. **Vincent De Feo** identified hormone-induced changes to the uterus during pregnancy. He recruited faculty who advanced understanding of human sexuality and championed problem-based medical training.

12. **World History**, established in 1990 with Jerry Bentley as editor, fit an institution that was the first to offer world civilization courses (in 1945) and became headquarters of the World History Association.

13. **Ethnomusic** developed when classical pianist Barbara Smith learned koto, hula chant and Bon dance drumming after joining the music department in 1949; a master’s program was established in 1960.

14. **Asian-focused MBA programs and early federal designation as a Center for International Business Education and Research** helped Shidler College of Business earn a top-25 graduate school ranking.

15. **Linguist** George Grace joined UH in 1964 and introduced Austronesian language instruction. Robert Hsu’s concordance and Pacific and Asian Linguistics Institute reference works took the languages of Micronesia from among the most poorly documented to among the best. Later Teresita Ramos introduced the world’s first Ilokano program.

16. **Ethnobotany** was introduced to a generation of students when Beatrice Krauss, the first woman to earn a BS from UH in 1926, returned after retirement to teach as a volunteer.

17. **A creole language** (Hawaiian pidgin) bibliography was the first publication of the Oceanic Linguistics Special Publications. Derek Bickerton conducted a large historical study in the 1970s and wrote extensively on pidgin and creole linguistics through his retirement in 1995.
Political scientist Glendon Shubert built on writings he began in the 1950s to help develop subdivisions of judicial behavior and biopolitical behavior during his UH tenure, 1971–2000.

The Center for Biographical Research, founded under George Simson in 1976, was the first such center in the country. It produces the journal Biography, popular brown-bag talks and the Biography Hawai’i public television series.

Decision science founding Chair Ralph Sprague’s framework article on decision support systems was one of the 25 most cited works in the information systems field during the 1980s.

Conservation biology launched as a graduate specialization in 1991, building on the 5-year-old Hawaiian Evolutionary Biology Program.

Outreach

Pacific Islands experts advised U.S. officials in post WWII administration of Micronesian islands. Political scientist Norman Meller helped emerging Pacific nations develop their constitutions.

Advancing the arts, Professor of Music Raymond Vaught founded the Honolulu String Quartet; dance Chair Carl Wolz, left, co-created the Asia Pacific Dance Alliance and Hawai’i’s Artists in the Schools program.

Satellite communication for educational and humanitarian purposes was realized in 1969 with the Pan-Pacific Education and Communication Experiments by Satellite, or PEACESAT. Multiple technologies now link 16 Pacific Islands sites.

The Citizens Chair in English, created by the Legislature in the mid-1960s, gives Hawai’i readers access to prominent literary figures. Pulitzer winning biographer Leon Edel held the post 1969–79.

UH Art Gallery earned five Print Casebooks Best in Exhibition Design honors during the 1980s. Excelling the Work of Heaven received an American Association of Museums 2008 MUSE award.

Children’s Literature Hawai’i, a biennial conference founded by the English department in 1982, focuses on creating, using and interpreting literature for children and teens.

Philosophy in the Schools has been teaching children to think critically, express their thoughts and develop reasoning skills since the mid-1980s.

Growing Old in a New Age was an ambitious undertaking of Anthony Lenzer’s Center on Aging. The series aired on national public TV in 1989 and was licensed to 40 colleges as a telecourse.

Research initiatives


Coconut Island’s Hawai’i Marine Laboratory was UH’s first designated research lab. Robert Hiatt courted individuals, foundations and agencies for resources and lobbied lawmakers to designate 64 surrounding acres of coral reef a marine laboratory refuge.

A food irradiator was brought to Mānoa in 1964. James Moy, principal investigator since 1968, developed low-dose protocols for disinestation of fruits for export. In 1995, Hawai’i became the first place in the world to use the technology.

Hawai’i Geothermal Project, organized in 1972, demonstrated that volcanic heat is a viable source of electricity. Cultural and environmental concerns created resistance.

Hydrogen fuel research began at UH in 1983. The Hawai’i Natural Energy Institute program hosted an international conference the following year and was designated a National Research Success Story in 1999.

Hawai’i Ocean Time Series has obtained physical and biogeochemical observations for 20 years at a location north of Oahu characteristic of the central North Pacific Ocean.

Women’s Health Initiative is a 15-year project investigating lifestyles, treatments and health concerns. UH and 23 other institutions began enrolling women in 1994.

Criminologist Meda Chesney-Lind has brought national attention to issues including juvenile offenders, women in the criminal justice system, gangs and school safety.

Kaka’ako campus of John A. Burns School of Medicine opens in 2005 and construction begins in 2010 on an adjacent site of a Cancer Center focusing on cancer research and clinical trials of possible cures.

Center for Microbial Oceanography Research and Education opens new science laboratory in 2010 to advance research into the role of marine microbes in sustaining life on Earth.

Scholarly achievements

Kabuki, performed at UH as early as 1923 and at the opening of Kennedy Theatre in 1963, set the stage for the university’s prominence in Asian theatre.

A Hawaiian language text with 83 lessons in grammar and vocabulary was released by Henry Judd in 1936.


Medieval Japanese history translated from the Azuma Kagami by Minoru Shinoda in 1960 is still an important document for Japan scholars.

Rain maps created by UH meteorologists and geographers in the 1980s remain the standard.

In ancient writings, Walter Maurer was a leading Sanskrit scholar; Robert Littman digitized the oldest Greek manuscript of the Bible; Ulrich Kozok identified an ancient Malay legal code.

Chinese lexicography advanced with Emeritus Professor John DeFrancis’s ABC (Alphabetically Based Computerized) Chinese English Dictionary and other publications.
47 Seventeen academic journals published by UH Press cover topics from Buddhist-Christian studies and contemporary Chinese art to archaeology, geography and science of the Pacific/Asia region. See www.uhpress.hawaii.edu.

**Namesake buildings**

48 William George Hall for the former Geneva College president who served in the French Army and Italian ambulance service in WWI before becoming dean of arts and sciences in 1930.

49 Arthur L. Andrews Outdoor Theatre for an early Cornell-trained professor. He taught English and organized the first play, campus newspaper and annual.

50 Leonora (and Earl) Bilger Hall for the chemistry couple. She oversaw construction of the building, was named the nation’s outstanding female chemist in 1953 and donated $25,000 to remodel a biochemical laboratory in her husband’s memory.

51 John A. Johnson Hall for the student leader and athlete turned sugar company manager and 100th Battalion soldier. He died in the Battle for Cassino.

52 Arthur R. Keller Hall for the lawyer and civil engineer whose paving experiments produced the first campus road. He designed a drainage and flood control system for lower Mānoa.

53 Charles Edmondson Hall for the biologist who wrote the first text on marine animals and organized the first Pacific Science Congress in 1920.

54 Kenichi Watanabe Hall for the physicist considered a pioneer in study of ozone concentration in the upper atmosphere. He established a vacuum ultraviolet spectroscopy lab before his untimely death in 1969.

55 Harold St. John Laboratory for the botanist who oversaw harvesting of Cinchona bark as an alternate source of malaria drugs during WWII.

56 Willis T. Pope Laboratory for one of UH’s first doctoral candidates, who served as a UH instructor and administrator and territorial Superintendent of public instruction.

57 Wilfred Holmes Hall for the dean who oversaw growth in engineering enrollment from a few dozen to 800 in two decades following WWII.

58 Allan (and Marion) Saunders Hall for the political scientist who fought for the right to wear aloha shirts in 1953, helped establish the state constitution and started the Hawai‘i chapter of the American Civil Liberties Union in 1965.

59 Shunzo Sakamaki Hall for the alumnus who taught Asian history for 34 year and established summer course sessions.

60 G. Donald Sherman Laboratory for the soil scientist and American Association for the Advancement of Science fellow who promoted Hawai‘i’s guava and passion fruit industries.

61 Stan Sheriff Center for the athletic director who secured broadcast deals, balanced the books and successfully fought for the 10,000-seat domed complex that opened one year after his death.

62 Mary-Dillingham Frear Hall welcomes student residents in 2009 as UH Mānoa’s first new residence hall in 30 years and the first to emphasize environmentally friendly features.

**UH Press best sellers by decade**

63 The Hawaiian Kingdom, Volume 1: 1778-1854, Foundation and Transformation, by Ralph S. Kuykendall, associate professor of history (1948). Describes pre-contact Hawai‘i and foundations of modern Hawai‘i. Later volumes cover efforts to maintain independence and the Kalākaua dynasty.

64 Hawaiian-English Dictionary, by Mary Kawena Pukui and Samuel H. Elbert, professor of pacific languages and linguistics (1957). The expanded 1986 version, considered the most complete of any Polynesian dictionary, has sold 107,000 copies and the 1992 pocket version, 200,000.


66 Atlas of Hawai‘i, by the UH Mānoa Department of Geography (1973). Professor R. Warwick Armstrong’s project was updated with new census data in 1983 and completely redone by UH Hilo faculty members with computerized cartography in 1998.

67 A is for Aloha, by Stephanie Feeney, professor of education, with photos by Hella Hamid (1980). UH Press’s first children’s work provided toots with a book portraying local experiences. Three additional Feeney books followed.


69 Integrated Korean, by the Korean Language Education and Research Center (2000), first volume of a five-level series that has dominated the Korean language market. Authors include Mānoa’s Young-Geun Lee and Ho-min Sohn.

**Economic stimulus**

70 Food crop varieties developed by UH are many, including disease resistant Sun Up and Rainbow papayas, which saved a $40 million industry threatened by papaya ringspot virus.

71 Aquaculture research begun in the 1960s has gained momentum. In the late 1980s, UH became one of five U.S. Department of Agriculture designated aquaculture centers. Marine Research Training Center demonstrated projects involving shrimp, fish and snails in Kāne‘ohe Bay.

72 Black coral is a profitable, well managed and sustainable $15 million industry thanks to a 1970s research program.

73 The multiplier effect The multiplier effect converts every $1 of state general funds invested in UH Mānoa into an additional $5.34 of spending in the state. Economic study in 2007 also shows every $1 million of general funds spent on UHM generates 73 jobs.

**Greater good**

74 An antidiscrimination proviso in the 1907 legislative charter creating UH states: “No person shall, because of sex, color or nationality, be deprived of the privileges of this institution.” During WWII, Regent Hemenway helped convince authorities of the loyalty of Japanese Americans, saving many in Hawai‘i from internment camps.
75 Student Health Services was one of the nation's first college health programs to offer family planning services to students.

76 The Spark M. Matsunaga Institute for Peace has provided a multi-disciplinary approach to peace studies since 1984.

77 The Rare Hawaiian Plant Project was launched by Lyon Arboretum in 1991 to protect and propagate native plants and create a germ plasm collection of endangered species.

78 Hawaiian sovereignty discussions resonate in UH classrooms. Mānoa Library's Special Collections has assembled resources on the topic at www2.hawaii.edu/~specoll/hawaiisites.html.

79 Nuclear fallout drove Marshallese from their Rongelap atoll for weapons testing in the 1950s and from lingering contamination three decades later. In 2002 the Pacific Business Center coordinated assessment and community planning for their return. Journalism Professor Beverly Keever's 2004 book News Zero explores the role the New York Times played in shaping public opinion about U.S. nuclear weapon testing.

80 Hawai‘inui‘kea School of Hawaiian Knowledge is established in 2007 as one of the nation's largest schools of indigenous studies and the next year Native Hawaiian Maenette Ah Nee-Benham is appointed Dean.

81 Broken Trust: Greed, Mismanagement and Political Manipulation at America’s Largest Charitable Trust, co-authored by Professor of Law Randall Roth, in 2006 documented breaches of fiduciary duty resulting in the downfall of trustees overseeing Bishop Estate's management of Kamehameha Schools.

82 A federal grant of $25 million is awarded to the College of Tropical Agriculture and Human Resources to launch an initiative—the first of its kind nationally—focusing on the epidemic of childhood obesity in the Pacific region.

83 Food chemistry advances were made by Alice Thompson, who analyzed the nutritional value of guava in 1915, and Alice Ball, known for extracting chaulmoogra oil to treat Hanson's Disease, who identified the active ingredient in kava.

84 Hormonal growth and protein synthesis research by Department of Biochemistry and Biophysics founder Theodore Winnick laid the groundwork for later cancer research.

85 Coral reef ecology has been a Hawaiian Institute of Marine Biology focus since the 1960s. Researchers documented affects of temperature change and sewage discharge and identified the phase of the moon when coral spawn.

86 Lo‘ihi volcanism was first documented by UH scientists in 1970. Repeated dives and remote monitoring add to knowledge about the birth of volcanic islands.

87 The Chemistry of Marine Natural Products, Paul Scheuer's 1973 book, was the first in any language on the topic. Working well into his 80s, he identified marine toxins with potential anti-fouling and anti-cancer properties; work continues under Richard Moore.

88 Glowing bacteria growing on undersea thermal vents were first observed by oceanographer David Karl, UH's first National Science Foundation Young Investigator awardee. Later, Microbiologist Maqsudul Alam was the first scientist to sequence the genome of the new bacterial species.

89 Sexual selection, the concept that mate preference influences species formation and populations faced with extinction, was first described by Hawaiian Drosophila project researcher Kenneth Kaneshiro in 1987.

90 Marine mammal behavior, including dolphin cognition, song patterns, humpback migration routes and mother-calf interaction, are among findings made during 17 years of research by psychologist Louis Herman and associates.

91 The first Kuiper's Belt object was discovered by astronomer David Jewitt in 1992. The ring of debris and small bodies beyond Neptune generates short-period comets and holds clues to planet formation and dust rings around other stars.

92 Nutrinos have mass, a 1998 finding challenging the Standard Model of Physics, is just one of the advances stemming from international collaborations that involve UH physicists. Vincent Peterson began assembling the core high energy physics team in the early 1960s.

93 Geoscience citations tallied by Science Watch placed Mānoa in the top 20 international institutions, with UH research cited 13,226 times in geoscience journals between 1991 and 2001.

84 Inventions

94 Floriculture varieties developed for growers by UH breeders include new anthurium and orchids created first by Minoru Aragaki, followed by Haruyuki Kamemoto and now Adelheid Kuehnle.

95 Before cloned and green transgenic mice, Ruyuzo Yanagimachi laid the groundwork for in vitro fertilization by identifying the conditions necessary to produce “test-tube” offspring. Four decades later, he continues to publish on factors that enhance fertilization and influence early embryonic development.

96 ALOHA, the Additive Links On-line Hawai‘i Area systems network developed by electrical engineer Norman Abramson in the 1970s to transmit data by radio waves, was a steppingstone to advanced wireless communication systems.

97 Towed sidescan sonar designed by Margo Edward's Hawai‘i Mapping Research Group is charting the ocean floor.

98 Ciguatera testing developed by Yoshitsugi Hokama helped detect fish-borne toxin that creates unpleasant side effects in an estimated 100 cases a year in Hawai‘i

99 A termite barrier of granular material developed by entomologist Minoru Tamashiro provides cheap, permanent, non-polluting protection against destructive subterranean termites.

100 A 16-megapixel camera developed by the Institute for Astronomy optics group made a 30-year-old telescope the best infrared imager in the world.

Nancy Morris contributed to this report. References include Building a Rainbow, Mālamalama: A History of the University of Hawai‘i, Moku o Lo‘e, UH and Sea SOEST Report 04-01 and various print and online college and department histories.