

ISLAND LIFESTYLE...GLOBAL OPPORTUNITIES

MAUI COUNTY OFFICE OF ECONOMIC DEVELOPMENT

ECONOMY  
TECHNOLOGY  
AGRICULTURE  
EDUCATION  
CULTURE & ARTS



**MAUI  
MOLOKA'I  
LANA'I**  
COUNTY OF MAUI





# FROM THE MAYOR

## *Aloha!*

When you say the word "Maui", everyone smiles. This is because our county has achieved the perfect balance of a place to live, work, and play. As you read these stories about Maui's economy, you will understand what a diverse, innovative, and caring community we have created.

Maui County is made up of four geologically diverse islands (Maui, Moloka'i, Lana'i, and Kaho'olawe). These special islands offer incomparable natural beauty and have a treasure-trove of culture, resourceful and socially conscious businesses, and an abundance of events that enrich the lives of our citizens and our visitors.

Maui has a diverse mix of industry with cutting-edge astronomy and agricultural research, alternative energy companies and projects, software and information management enterprises, and excellent educational and health facilities. Maui offers a visitor experience that is second to none and has an international following.

Maui hosts sports events such as the EA Sports Maui Invitational NCAA Basketball Tournament, the American Windsurfing Championship, the Maui Marathon, the Hyundai Tournament of Champions—a PGA event, and many others. Maui is also home to the most modern performing arts center in Hawai'i. The Maui Arts and Cultural Center has produced and hosted events such as Elton John, the Ki ho'alu Hawaiian Slack Key Guitar Festival, the Brothers Cazimero Lei Day performance, the Maui Film Festival, BB King and thousands of others since it was built in 1994.

Maui's diversity, its people, and natural beauty attract people from around the globe.

We urge you to come and explore why Maui has been voted "Best Island in the World" by Conde Nast Traveler magazine 17 times! It is a fitting accolade because our longtime motto is Maui No Ka Oi! (Maui is the BEST!)



A handwritten signature in black ink, reading "Alan Arakawa". The signature is fluid and cursive.

Alan M. Arakawa  
Mayor, County of Maui





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# AT A GLANCE

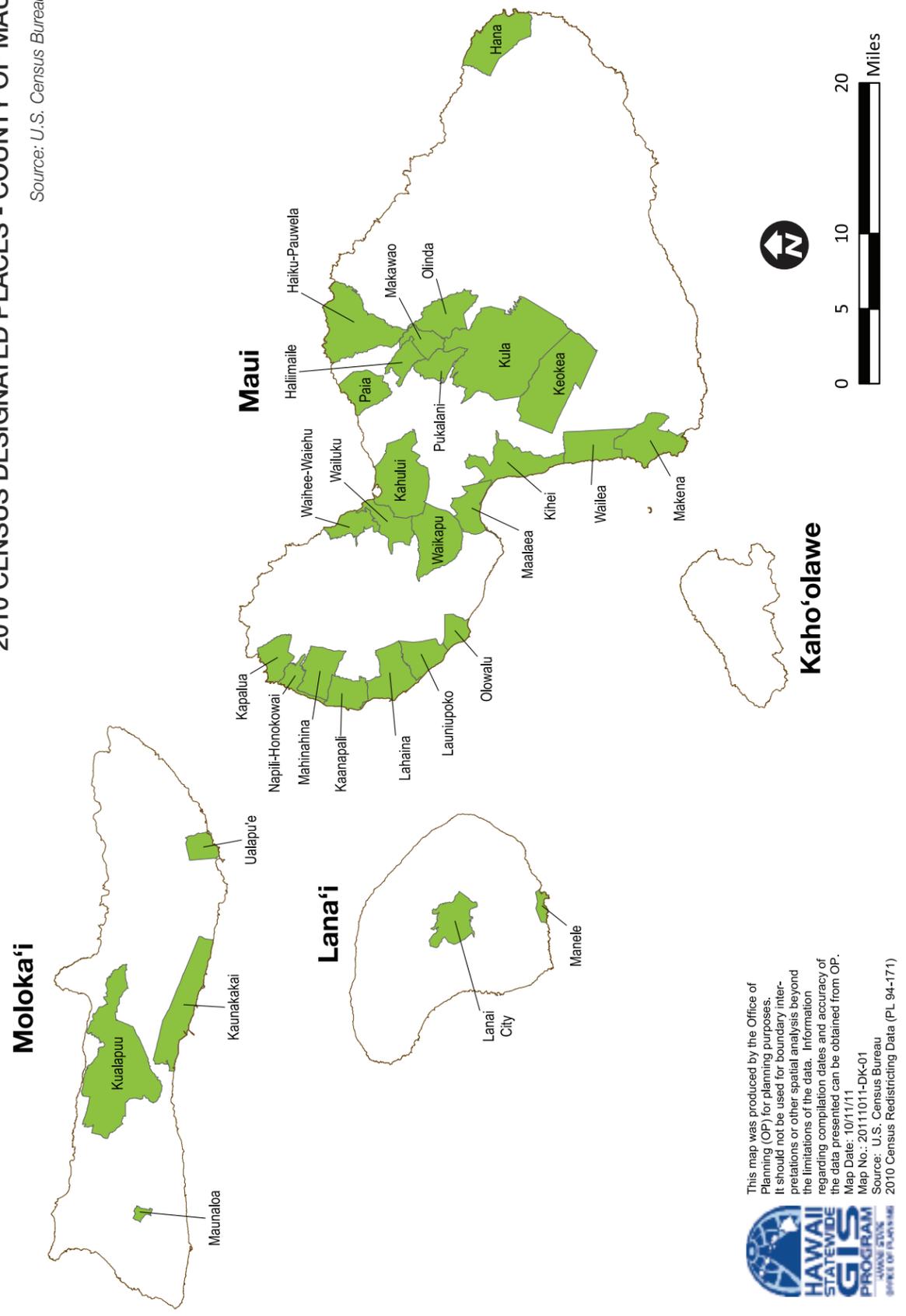


|                                     |           |                                |          |
|-------------------------------------|-----------|--------------------------------|----------|
| Population Maui County (2010)       | 154,924   | Hotel Inventory (Rooms) (2010) | 20,068   |
| Maui Island                         | 144,444   | Hotel Occupancy (2010)         | 68.1%    |
| Moloka'i                            | 7,345     |                                |          |
| Lana'i                              | 3,315     | Educational Enrollment (2010)  | 29,241   |
|                                     |           | Elementary                     | 11,529   |
|                                     |           | Intermediate                   | 4,911    |
|                                     |           | High School                    | 8,434    |
|                                     |           | UH-Maui College                | 4,367    |
| Race/Ethnicity, Maui County (2010)  |           | Housing Units (2010)           | 70,492   |
| White                               | 34%       | Households (2010)              | 53,886   |
| Asian                               | 29%       | Per Capita Income (2009)       | \$36,585 |
| Native Hawaiian/Pacific Islander    | 10%       | Median Household Income (2009) | \$63,659 |
| Two or more races                   | 24%       | Number of Businesses (2009)    | 5,675    |
| Other                               | 3%        | Number of Farms (2007)         | 1,156    |
| Total                               | 100%      |                                |          |
| Persons under 18 years old (2010)   | 22.9%     | Land Use: Total Acreage        | 750,900  |
| Persons 65 years and older (2010)   | 12.4%     | Agricultural                   | 402,374  |
| Total Population Change (2000-2010) | +20.9%    | Conservation                   | 311,601  |
|                                     |           | Urban                          | 28,619   |
|                                     |           | Rural                          | 8,326    |
| Civilian Labor Force (2010)         | 74,950    |                                |          |
| Employed                            | 68,700    |                                |          |
| Unemployed                          | 6,250     |                                |          |
| Total Visitors (2010)               | 2,134,902 |                                |          |
| Domestic                            | 1,840,330 |                                |          |
| International                       | 294,572   |                                |          |

Source: MEDB (various sources)

## 2010 CENSUS DESIGNATED PLACES - COUNTY OF MAUI

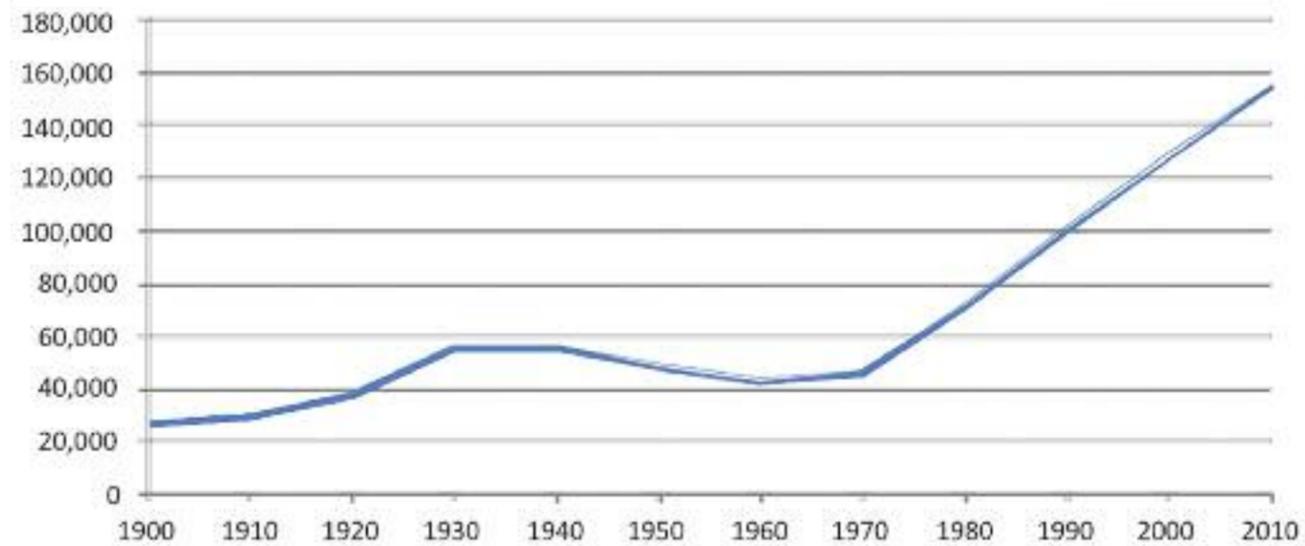
Source: U.S. Census Bureau



This map was produced by the Office of Planning (OP) for planning purposes. It should not be used for boundary interpretations or other spatial analysis beyond the limitations of the data. Information regarding compilation dates and accuracy of the data presented can be obtained from OP.  
 Map Date: 10/11/11  
 Map No.: 20111011-DK-01  
 Source: U.S. Census Bureau  
 2010 Census Redistricting Data (PL 94-171)

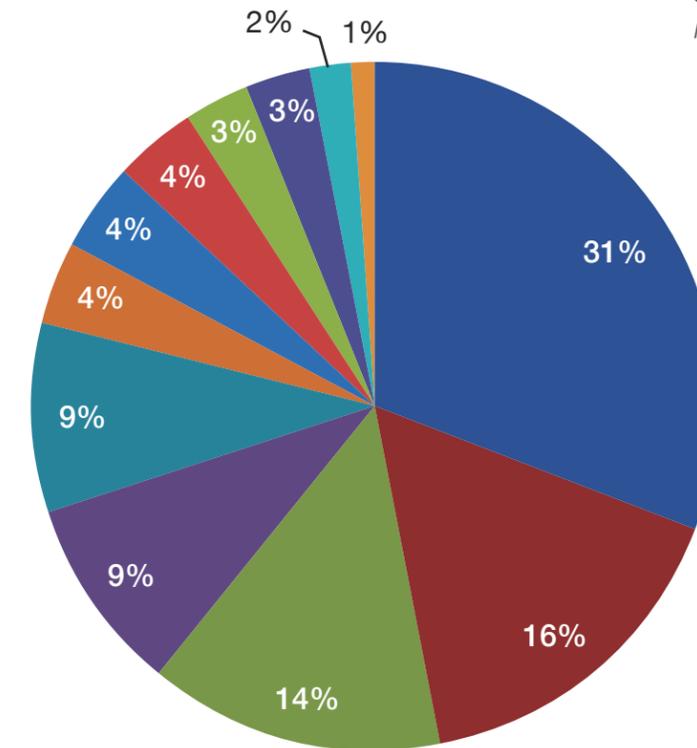


### MAUI COUNTY POPULATION: 1900 - 2010



Source: U.S. Census Bureau

### EMPLOYMENT BY SECTOR, MAUI COUNTY, 2010



Source: Hawai'i Department of Labor and Industrial Relations (DLIR)

### TECHNOLOGY SECTOR EMPLOYMENT BY COMMERCIAL MARKET SEGMENT, MAUI COUNTY, 2007

|  |       |                             |     |
|--|-------|-----------------------------|-----|
| All Technology Sectors (estimated)             | 1,886 | Agricultural Biotechnology  | 603 |
| Information and Communication Technology (ICT) | 993   | Ocean Sciences              | 401 |
| Defense/Aerospace                              | 864   | Energy                      | 337 |
| Engineering and Professional Services          | 705   | Biotechnology/Life Sciences | 204 |
| Environmental                                  | 656   | Digital Media               | 114 |
|  |       | Astronomy                   | 50  |

Note: Activities in commercial market segments listed above are overlapping and interrelated so that employees may work in two or more of the segments.

Source: Hawai'i Science and Technology Institute: Innovation and Technology in Hawai'i: An Economic and Workforce Profile, October 2008.

|                                  |     |                                  |    |
|----------------------------------|-----|----------------------------------|----|
| Leisure & Hospitality            | 31% | Financial Activities             | 4% |
| Retail & Wholesale Trade         | 16% | Other Services                   | 4% |
| Government                       | 14% | Construction & Natural Resources | 3% |
| Professional & Business Services | 9%  | Agriculture                      | 3% |
| Educational & Health Services    | 9%  | Manufacturing                    | 2% |
| Transportation & Utilities       | 4%  | Information                      | 1% |

# MAUI: THE MELTING POT OF THE PACIFIC



2011 County Council  
MAUI COUNTY

One of Maui's greatest assets is its population—a successfully blended community within the most integrated State in the U.S. Maui has long been an inviting gathering place, attracting a wide range of people from different cultures and ethnic backgrounds from the Pacific Rim and beyond. At the same time, cultural origins are proudly preserved and celebrated at festivals and community-wide events.

Maui's diverse population is a unique source of strength and resourcefulness that has contributed to shaping its economy, lifestyle, and culture. The traditions of each successive ethnic group joined with the host Hawaiian culture, through intermarriage, social proximity and intermingling, shared religious practice, business relationships, and through simple necessities such as food. Alan Wong, one of Hawaii's leading chefs, tells the story of spending his summers as a teenager working in the

pineapple fields. His fellow plantation workers, who brought their packed lunches with them from home, would trade and share their home cooking, "talking story" about their origins, and forging unique links that crossed national boundaries (see separate article on page 15).

Another expression of Maui's melting pot, in common with other Hawaiian islands, is the creole dialect known as "Pidgin", developed initially as a simplified means of communication during

the plantation era in the nineteenth century. Ethnic groups with no language in common created their own distinctive parlance using Hawaiian English as a base and incorporating words, phrases, and grammatical structure borrowed from the languages of immigrant groups. Pidgin has evolved today as a means of communication by local residents and symbolizes Maui's vibrant multiculturalism.

As an example of how diverse the population is, Maui's 2011 County Council represents various ethnic backgrounds, including Japanese, Korean, Portuguese, Hawaiian, Caucasian, and Filipino

Ever since Captain Cook sailed on a voyage of discovery to Hawai'i in 1778, successive waves of visitors and groups of immigrants have played a distinctive role in creating Maui's unique cultural mix. In the first few decades that followed the first Western contact, traders and adventurers from Europe and North America traveled to the Hawaiian kingdom, or stopped en route to China and Asia, introducing all manner of traded goods and taking on provisions. In the early 1800s, trade in sandalwood and koa wood for the Chinese market put Maui on the commercial map, and the arrival of American missionaries and whalers, mostly from New England, brought further changes.

By the mid-1800s, American businessmen and entrepreneurs followed in significant numbers, establishing the sugar industry on all of the islands, including Maui. Scions of two missionary families, Samuel Alexander and H. P. Baldwin, established the most successful and longest-lasting sugar plantation of all. Initially, about 80 percent of sugar workers in Hawai'i were Hawaiians, but due to depletion in numbers as a result of foreign diseases, these numbers declined significantly. Thus, foreign workers began to be brought in to work on the rapidly expanding plantations. The first major group to arrive in the 1850s consisted of field workers from China, mostly from Canton and southern China; some also arrived from the U.S. mainland where they had been working on the railroads. Chinese immigrants were mostly single men and signed contracts for fixed periods (typically, three to five years). They usually left the plantations after completing their contracts, and many started their own businesses. Intermarriage with Hawaiian women was common.

Portuguese sailors were early visitors to Hawai'i (in the 1790s) and by 1872, there were at least 400 Portuguese settlers in the islands. Hawaiian sugar planters followed a recommendation made by members of this community to recruit laborers from the Portuguese islands of Madeira and the Azores. They were brought in as families and thousands traveled to Maui from the 1870s through the early 1900s with the intention of staying permanently. They often moved into luna (supervisory) positions after starting as field workers.

The largest immigrant group to Maui and the rest of Hawai'i came from Japan between the mid-1880s through the 1920s. Like the Chinese workers, they were mostly single men and agricultural workers, although later on, Japanese men were recruited with their families. In all, over 180,000 Japanese were recruited to work on the sugar plantations; it is estimated that about half returned to Japan after fulfilling their contracts.

Another major ethnic group to settle in Maui County was from the Philippines. The end of the Spanish-American War of 1898, which resulted in annexation of the Philippines, signaled free travel for Filipinos into the U.S. and its territories. At around the same time, political issues were leading to restrictions being sought by the U.S. on further immigrations from China and Japan. Initially, it was single Filipino men who came to work in the fields, but later, families (and some single women) formed a significant part of the influx. More than 126,000 arrived in Hawai'i between 1906 and 1946, and their numbers were important to the growth of the pineapple industry during this period. A further wave of immigration from the Philippines occurred during the 1980s due to political instability and existing family ties in Hawai'i.

Smaller groups of workers arrived on Maui in the early 1900s from Korea and Puerto Rico. Other groups of field workers came to Hawai'i from such diverse places as Norway, Germany, Scotland, and Russia.

Data from the 2010 Population Census show that almost one-quarter (23.5%) of Maui's residents describe themselves as a combination of two or more races. Of the remaining 76.5%, 34% are Caucasian, 29% Asian, and 10% Hawaiian or Pacific Islander, a diverse range. Together, the proud native people of Hawai'i and the descendents of these early immigrant pioneers have created a vibrant and diverse society from the wellspring of their distinctive cultural and ethnic traditions. Individuals from the groups are represented in all sectors of Maui's economy, forming a dynamic workforce brimming with talent and new ideas. There is a saying on Maui – "Maui No Ka 'Oi" – translated as "Maui is the best". Maui is truly the best in terms of successful integration of cultures and heritage, and gathering the power and wisdom of its people for the benefit of all.

# AGRITOURISM: INTRODUCING VISITORS TO MAUI AGRICULTURE

Jill Engledow



A farmer who sells stalks of bananas to the local wholesaler may find he can make a lot more money by turning some of those bananas into banana bread to sell at a roadside stand. And if he charges tourists a few dollars for a tour of his banana patch, then retails dried bananas, banana smoothies, banana chips and even banana holders hand-carved by his next-door neighbor, the farmer may earn enough to make his formerly break-even farm a profitable operation.

That's the theory behind agritourism, a movement that satisfies city folks' yearning for a glimpse of country life and helps farmers who barely make a living from commodity crops tap additional farm-related income. Maui County's agritourism ventures range from the highly organized and commercial to small mom-and-pop operations. They follow a tradition that in Hawai'i goes back to Honolulu's famous Dole Pineapple Cannery Tour (closed in 1993) in which uniformed "Dole ladies" led visitors through the company's Iwilei cannery. The tradition is found around the world in places like Provence, France, where tourists follow the "lavender trail" of purple fields during the summer harvest season.

## MAKING AGRITOURISM WORK

It's not clear exactly how many agritourism ventures there are in Maui County, but the Hawai'i AgriTourism Association (HATA) has 12 members in the county, and HATA president Lani Medina

Weigert estimates there may be about 20 ventures total. A National Agricultural Statistics study published in January 2008 found that, of the 800 farms in Maui County, the number of farms with agritourism activity rose from 31 in the year 2000 to 43 in 2003, only to drop in 2006 to 28. The decline highlights the difficulty in making agritourism work. It's a big step to go from farming to welcoming visitors; in fact, the HATA website includes a two-page checklist for farmers wondering if they are ready for agritourism.

Weigert is an independent marketing and customer service consultant who is also co-owner & CEO for Ali'i Kula Lavender, one of the most successful agritourism businesses in Maui County. As president of HATA, she shares her own marketing expertise and her farm's success in order to teach other farmers how to set up a high-quality visitor experience with a low impact on the community.

Agritourism sites need everything from value-added products and liability insurance to clean restrooms and shady places for visitors to sit. Food items must be prepared in a state-certified kitchen. Someone on the farm has to have the personality and the willingness to engage with visitors. Weigert says farmers need to think about how to be good neighbors, both by avoiding annoyances like big tour buses on country roads and by giving

back to the community. One key to success for the lavender farm has been recruiting other community businesses to use the farm's lavender to make value-added products, ranging from scones to sunscreen, which are then sold in the farm shop.

85% of the food consumed in Hawai'i is flown or shipped here from other parts of the world

Permitting has been a big issue for would-be agritourism operations, and in recognizing its significance, policymakers are addressing it. Regulations set up to protect ag land for agricultural use can hamper farmers' efforts to add visitors and value-added product shops to the mix. There is a delicate balance, and at least part of the success realized by some agritourism operations is due to the efforts of local Farm Bureau officials who have been working on this issue over the years. Maui County Farm Bureau Executive Director Warren Watanabe advocates an agritourism ordinance requiring counties to regulate such activity. The goal of the ordinance would be to allow agritourism to support agriculture, not to replace it. "We don't want it to be like a Disneyland kind of thing," Watanabe says of agritourism. "We want to make sure there's some kind of farming going on. Ag-tourism activities must be an accessory use," with farming the focus.

## A KEY TO THE FUTURE FOR AG

Farming is hard work and has become very expensive, Weigert says. Support for agriculture is important not just for individual farm businesses but for the entire community. Maintaining a system of food production is essential on islands thousands of miles from potential sources; some 85 percent of the food consumed in Hawai'i is flown or shipped here from other parts of the world, leaving the islands vulnerable to any disruption of the supply. So farmers are forming alliances and doing whatever they can to stay in business. "Agtourism thrives as a regional cross-commodity network of entrepreneurs," says Watanabe of the benefits of HATA. "Working within an association improves cross-communication among those in agriculture, tourism and culinary endeavors who have a common interest in the development of agtourism."

There is increasing community support as well. Besides the farmers themselves working together and including other businesses in making value-added products, the growth in the "locavore" movement has helped. The Maui movement is part of a nationwide "farm-to-table" trend to seek food products grown close to home, particularly important in geographically isolated

Hawai'i. Invariably, members of Slow Food Maui, a group that supports locally grown food, show up to help with farm-related festivals and events. These agriculture-related gatherings are some of the most popular festivals held on the island each year, including the Maui County Agriculture Festival and the East Maui Taro Fest.

Farmers as well as "foodies" need such dedication to make agritourism, and agriculture in general, a success, says Weigert. Farmers want to start ag tours to help support their farms, but if they're only doing something for the money, it's hard to sustain. "Doing it to be a good steward, for the grandkids, for the environment—those kinds of things drive people to get up every morning and do what they do. If you're doing it for something greater than yourself, you're not going to give up."

## For more information:

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## MAUI AGRITOURISM ADVENTURES

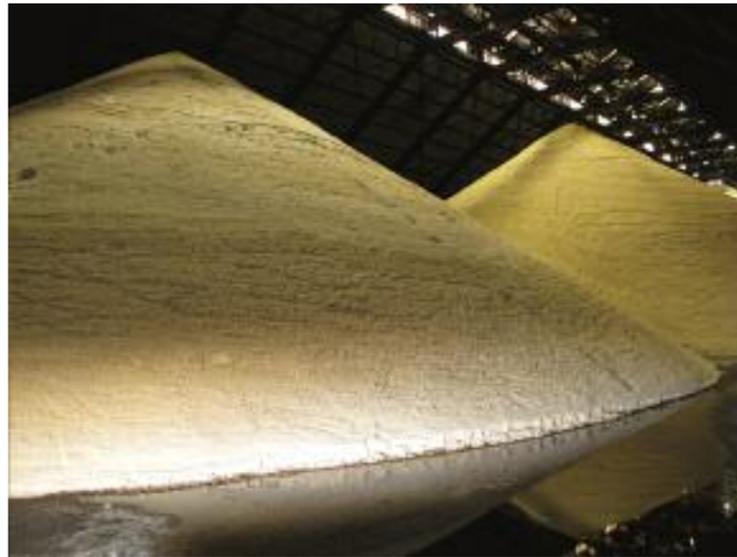
Several operations on Maui maintain daily hours and retail outlets, with employees to help with chores and visitors. These are a few of Maui's top agritourism attractions.

- Maui Tropical Plantation showcases a tram looping through a patchwork of crops, and the restaurant and shop offer farm-related products.
- Tedeschi Vineyards offers not only samples of its Ulupalakua-produced wine but tours of the winery.
- Surfing Goat Dairy lets visitors help herd the animals and watch milking, then taste award-winning goat cheeses.
- Ali'i Kula Lavendar allows visitors to self-guide or to take a guided tour.
- Maui Pineapple Tours shows visitors around the Hali'imaile plantation fields and sends them home with a fresh pineapple.

- O'o Farm welcomes visitors to its biodynamic gardens, where they pick the produce for an outdoor lunch.
- Ono Organic Farms offers tours of an organic jungle full of tropical fruit.
- Shim Farm is a one-man, working coffee, protea and botanical farm where visitors see what goes into the making of a bag of dark-roast coffee (a recent award winner).
- The Maui Grown Coffee Company Store set up shop in an old Pioneer Mill office, where it serves coffee, sells related products and hands out maps for a self-guided tour of the Ka'anapali Coffee Farms.

Maui County's ag tourism is not confined to Maui Island. On Moloka'i, visitors can take a "walkabout" at Kumu Farms or "crack a mac" at Purdy's Natural Macadamia Nuts. On Lana'i, Alberta de Jetley welcomes visitors for free at Bennie's Farm.

# SUGARCANE – MAUI’S ENERGY PROVIDER FOR OVER 100 YEARS



Maui is fortunate to be the home of Hawai'i's most productive and last surviving sugarcane plantation, Hawaiian Commercial & Sugar Company, or 'HC&S' as the locals know it. HC&S blankets the island's broad central valley with a patchwork of 36,000 acres of lush green fields, contoured to the shape of the island.

Its size is a key attribute: economies of scale are essential to HC&S's success, as is an abundance of sun and adequate water, combined with skilled labor and a commitment to continuous improvements in farming and factory technology. These are reasons why HC&S has been able to remain an important economic engine for Maui for 130 years.

## SUGARCANE PLANTS, POWER PLANTS

The fertile slopes of Maui's volcanic peaks, Haleakala and Kahalawai, have for generations been used to grow sugarcane plants, for its sucrose and for the plant's fibrous residue – bagasse – a renewable biomass fuel that powers HC&S's power plant and six percent of the island's electrical needs. Another renewable resource which has supported HC&S over

the years is surface water from these mountains: used first in HC&S's hydroelectric plants to generate power, then used to irrigate the crop.

## EFFICIENT AND ENVIRONMENTALLY SOUND

Today, H&CS is the world's largest drip-irrigated farm, thanks to its 1980s investment in an irrigation technique which remains the most effective way to irrigate a crop. HC&S's commitment to biological – versus chemical – control of insects and other agricultural pests means that no insecticides are used across the plantation. Further, HC&S's extensive crop variety testing and development program works to select plants naturally suited to Maui's climate, soil and environmental factors such as the strong winds and brackish ground water.

## INVESTMENT AND COMMITMENT

HC&S's longevity results from committed and skilled employees, many of whom are multi-generational HC&S families, supported by parent company Alexander & Baldwin's investments in its Maui agricultural operation. Tens of millions of dollars is invested annually to ensure HC&S is operating efficiently and in an environmentally sound manner.

## SUPPORT FOR ISLAND LIFE

Continuous investment and innovation has enabled HC&S to remain a major employer and taxpayer on the Valley Isle, with nearly 800 employees in three ag-related businesses, including Kahului Trucking & Storage and the East Maui Irrigation Company (EMI). The plantation's purchasing power and payroll total close to \$100 million annually and have a multiplier effect of 1.5 times, driving additional jobs, spending and economic activity on Maui and in Hawai'i. HC&S's purchasing power further lowers the cost of farm goods for the island's small farmers, helping the broader agricultural community on Maui. Maui cattle ranchers also rely on HC&S's cane tops, provided free of charge, as cheap feed for their livestock. EMI owns and operates an extensive water collection and transportation system which not only provides water to HC&S, but to the County of Maui, to meet the needs of Upcountry homes, farms and businesses.

## IAL

A&B's dedication to agriculture included voluntarily designating more than 27,000 acres as "IAL" – Important Agricultural Lands – ensuring that its legacy to agriculture is maintained on the island. It was the first private landowner to do so, under the law passed in 2008.

## SUGAR PRODUCTION

Measures of our success include the continuous cultivation of 36,000 acres with roughly half of the two-year crop harvested each season during an eight-month period. When running at full capacity, HC&S's factory at Pu'unene can grind and process 7,200 tons of sugarcane stalks each 24-hour period – more than 14 million pounds of biomass daily. In the most recent year, nearly 170,000 tons of raw and specialty sugar were produced; the average field produced just over 11 tons of crystalline sugar per acre.

## POWER

The fiber which remains after the juice has been squeezed from sugarcane stalks is called bagasse; it is used at HC&S's on-site power plant to generate electricity needed for the plantation's factory and field operations, using co-generation to produce steam. Excess power sold to the local electric utility – Maui

Electric Company. HC&S also operates two hydroelectric power plants, generating clean energy from a renewable resource. In total, HC&S generated 190,000 MWH of energy, and sold 68,000 MWH of firm power (not intermittent) to MECO in 2010.

## HC&S ENERGY FARM TRANSITION RESEARCH PROJECT

HC&S currently plays a significant role in Maui's renewable energy portfolio, and is uniquely positioned to play an even more significant role as the State of Hawai'i rallies around finding ways to improve renewable energy output.

## FEDERAL RESEARCH ASSISTANCE

Because HC&S is the perfect working laboratory for biomass and renewable energy research, in 2010, it attracted Federal energy grants from the U.S. Department of Energy through a grant to the University of Hawai'i CTAHR, and from the Office of Naval Research, through the USDA.

The two major areas of research are crop development and conversion technologies.

**Crops:** HC&S is evaluating other potential bioenergy crops such as 'energy canes,' perennial grasses such as bana grass, a variety of Napier grass, and energy sorghums. HC&S currently is field-testing 9,800 seedlings of energy cane; the oldest is now 3 months old.

**Soil and Water:** Maui has many soil types and micro-climates which enable these crops to be tested under a variety of environmental conditions. Recognizing that water is a precious resource, and a limiting factor in crop production, significant studies are under way to establish and understand water use efficiencies of the various bioenergy crops.

**Conversion Technologies:** The technology needed to turn the crop into energy is still unconfirmed but collaboration is underway with companies representing the major conversion pathways: fermentation and gasification. HC&S personnel have made site visits to U.S.-based biofuel companies with the most promising technologies, and to Brazil.

HC&S is also evaluating a feasibility study utilizing Maui County landfill gas as well as other biomass sources such as cane trash and wood chips.

## For more information:

[www.hcsugar.com](http://www.hcsugar.com)

# MAUI'S GROWING SEED CORN INDUSTRY

Luly Unemori



Monsanto Seed Corn Farm  
KIHEI, MAUI

In 1965, Dr. James Brewbaker of the University of Hawai'i invited fellow plant breeders from CornNuts Inc. and Illinois Foundation Seeds to view his research efforts with corn on the island of Moloka'i. Impressed by Brewbaker's work, they expanded their seed production. It was a harbinger of what would eventually become Maui County's number one agricultural sector, the seed crop industry.

By the early 1970s, more than 200 producers of seed corn had established themselves in Hawai'i. At that time the value of the industry was estimated at approximately \$500,000. But it wasn't until the mid 1990s that the industry began to expand exponentially, partly due to scientific advances in agricultural research that led to the successful commercialization of improved

biotech crops, and partly to rapidly growing worldwide demand for better crops that would enable farmers to produce more food per acre than ever before.

Over time, many of the seed producers consolidated into fewer but larger companies capable of devoting greater resources to agricultural research. Today, two of the five seed companies in

Hawai'i have research stations on the islands of Maui and Moloka'i: Monsanto Hawai'i and Dow AgroSciences. Together, they have invested millions of dollars in Maui County in the form of well paying jobs, capital improvement projects, and spending in the local economy.

For competitive reasons, the availability of Maui-specific data is limited. On a statewide level, however, and in spite of controversy surrounding genetically modified organisms (GMO), the industry's success and investment in the islands have been nothing short of stellar. According to figures from the National Agricultural Statistics Service, Hawai'i's seed crop industry was valued at more than \$222 million for the 2009/2010 farming season, a growth of nearly 500% since the 2000/2001 season. That figure accounts for more than one-third the value of the state's overall agriculture industry.

Hawai'i's seed industry has become the world's leading producer of seed corn, in spite of using less than five percent of the state's arable land.

As of 2009, the seed industry provided over 1,800 jobs statewide, representing a 73% increase since 2006 and more than 22% of all agricultural jobs in the islands. Of those jobs, roughly one-third are located in Maui County. The seed industry also provides proportionately more professional and technology (research and science) related jobs than other Hawai'i comparatives, and relatively higher wage scales. As a percentage of earnings, their benefits packages exceed the national average for all workers by more than 27%. Little wonder that companies like Monsanto Hawaii have earned multiple awards for being one of the best employers in the islands.

In the community, Maui's seed companies are among the largest private supporters of science, agriculture and technology education, providing local scholarships, paid internships, direct-to-school grants, countless volunteer hours and significant in-kind support for educational endeavors like the Maui Schools' Science & Engineering Fair, Maui County Farm Bureau's Agriculture in the Classroom program, agricultural displays at the annual Maui County Fair, and the Moloka'i Country Ag Fair.

Economically, the seed industry is a particularly good fit for the County. Seed crops are a high-value business that creates jobs with livable wages, expands professional career opportunities for residents with college degrees, promotes diversification of Maui

County's economy, and makes productive use of precious agricultural land while at the same time preserving the islands' attractive rural nature. Although Maui lacks the U.S. Mainland's vast tracts of farmland, the islands' year-round growing climate and well established regulatory and legal systems are attractive features for the industry. The industry is also a significant net exporter for Hawai'i, making it a valuable asset for an island state that imports a large percentage of its goods. As a result, Hawai'i's seed industry has become the world's leading producer of seed corn, in spite of using less than five percent of the state's arable land. The benefits of the seed industry, however, extend far beyond Maui County's shorelines.

Maui's seed industry is part of a global research and development process in which plant breeding is used to produce both improved conventional and biotech parent seed lines. It's not unusual for this development process to take years of effort, with different stages of the process carried out in various locations, depending upon climate and other factors. In general, Maui's seed industry plays a role closer to the end of the development cycle, with new seed varieties typically becoming available to farmers within two to three years. Hawai'i has been so successful in its research that most of the corn grown worldwide today has spent at least a portion of its development time in the islands.

The seed companies also have sister facilities in numerous locations internationally including Australia, Canada, Chile, China, Indonesia, Japan, Malaysia, New Zealand, Peru, the Philippines, Singapore, Thailand and Viet Nam. These facilities include administrative and sales offices, manufacturing plants, seed production facilities and research centers. Hawai'i's seed companies regularly contribute to the efforts of their fellow researchers and breeders, helping to develop new plant innovations that will address the needs of farmers in their specific regions – one of the many ways in which Maui County contributes to the well being of the world.

#### For more information:

Hawaii Crop Improvement Association  
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# MAUI'S CULINARY EXPERIENCE: EATING WITH ALOHA

Nancy Kanyuk



What people eat, why and how they eat, it goes to the heart of any society. This is particularly true in Maui where a rich multicultural tradition and unique history have resulted in a culture that celebrates food, family and ethnic diversity.

The island's agricultural past was shaped by the ancient land system known as ahupua'a, an early model of sustainability that carved the island into pie-shaped wedges running "from the mountains to the sea" and containing all the resources a human community needed.

Within a hundred years of initial western contact, much of the island was planted in sugar cane. Immigrants brought in to work the crop including Chinese, Japanese, Korean, Portuguese, Filipinos, and Puerto Ricans completed the transformation, creating one of the world's most culturally diverse populations (see separate article on page 8). Today this rich cultural blend is evident in backyard picnics (where the variety of dishes reflect this diversity) to the kitchens of fine dining establishments.

## MAUI CULINARY ACADEMY

The island's most important training ground for all things culinary is the Maui Culinary Academy (MCA) at the University of Hawai'i Maui College. Students at the Academy are taught to be proud of their diverse backgrounds. They are also taught to value the experience of their elders, one of the most important tenets of Asian and Pacific island cultures. This even applies if these "elders" are classmates one grade higher. The approach allows newer students to benefit from the experiences of their older counterparts. Faculty members, unlike those in other academic programs, are mentors and coaches rather than simply teachers.

When students enter the larger culinary community, mentors are often professional chefs. This is literally "trial by fire" when

students test their newly developed skills in some of Maui's many award-winning restaurants to get a feel for the rigors of the industry. "It's a win-win situation, says Chris Speere, MCA's program coordinator at the college, "because the employer also gets to see the value of a potential employee in the kitchen."

Not only do students train in these kitchens but there is also movement in the other direction. Industry leaders helped develop, design and implement the academy's curriculum to make it fit the workplace and also serve as guest faculty and even help raise funds for the program.

Students work side by side with professional chefs at prestigious community events, from award banquets to food and wine festivals. In fact, says Speere, "These learning experiences are as valuable as anything that takes place in a classroom".

In addition to a curriculum on a par with leading culinary schools on the mainland, MCA has also designed and created a state-of-the-art \$17.2 million facility (Pa'ina) that is a model of sustainability. First on the island to eliminate plastic bags and Styrofoam, MCA also captures used vegetable oil for biodiesel, provides green waste to pig farmers as feed and grows hydroponic herbs on-site. It also markets value-added products, like jams and jellies made with excess fruit—like pineapples and raspberries, byproducts of Maui's agricultural sector.

MCA graduates have found work from the East Coast to the West Coast, and thanks to the program's close relationship with local industry, they typically find employment in the kitchens of Maui's restaurants.

## A NEW CUISINE

One of the program's best-known graduates is James McDonald, executive chef at two of Maui's finest establishments. He and other chefs on the island are at the forefront of a new cuisine aptly named Hawai'i Regional Cuisine. Spearheaded more than twenty years ago by a group of twelve chefs across the state (including three from Maui, Mark Ellman, Beverly Gannon and Peter Merriman) it was in response to what old-school, upscale dining in Hawai'i used to be where diners were offered frozen, shipped-in, picked-before-it's-ripe food typically prepared by European chefs who did not appreciate the cuisines and ingredients of the Pacific Rim.

These chefs dared to be different. They challenged earlier practices such as shipping frozen mahimahi from places like Ecuador and Fiji, and instead now celebrate the freshness of fish caught sustainably in our rich island waters. In addition, they have married fresh local products to Hawai'i's diverse ethnic flavors, drawn from all parts of the Pacific Rim.

They are also partnering with farmers to guarantee markets for the produce they need which not only serves as a boost to the economy but also provides the community access to fresh fruit and vegetables. These days the watchwords are "indigenous ingredients", a celebration of *'aina a me moana*, the land and ocean of Hawai'i. Chefs are changing their menu selections based on seasonal products, buying from local farmers and some are taking it even further, growing produce for their own kitchens.

These attitudes are not just found in Maui's premier restaurants. They are also reflected in smaller dining establishments. In fact, chefs across the island have embraced the cuisine, which brings the old concept of ahupua'a—with its emphasis on local sources and sustainability—into the 21st Century.

## NEW TRENDS IN FARMING

The linchpins of this cuisine are Maui's farmers. Not only are they growing traditional crops like sweet potatoes and taro, they are also planting newer crops—asparagus, cabbage, arugula and other lettuces, strawberries, heirloom tomatoes, lavender, herbs as well as distinctive products such as Maui onions and Maui Gold pineapples. They are doing so on lands ranging anywhere from less than an acre to much larger farms.

Some of Maui's newest agricultural ventures include coffee and cacao beans. While coffee in Hawai'i has a tradition that extends back to the 1800s, there is a push to make it as ubiquitous as Hawai'i's world famous Kona coffee. And while the growing of cacao is still relatively new there is great potential, according to many in the agricultural community. In addition, Maui's floral industry, including lei flowers, protea and many others, is producing almost a tenth of the island's agricultural sales, and growing steadily.

These days ranching, which was an integral part of Maui's history with its paniolo or cowboy past, has a distinctly modern feel. Cattle are grass-fed, free of antibiotics and herded using kinder, gentler techniques. Goats have fast become another important island grazer, producing excellent cheese and other value-added products.

Today Maui is embracing 21st century concepts like conservation and sustainability. But it is also rooted in respect for the 'aina (land) as well as a rich multicultural history. It is the best of both worlds, a place where you can celebrate a rich history while facing the future.

# UNIVERSITY OF HAWAI'I MAUI COLLEGE: EDUCATION WITH A GLOBAL REACH



Imagine attending a world-class university on one of the world's most unique and isolated archipelagos, where surf sessions are epic and it is summer year-round. You can do so at Maui's only public institution of higher learning, the University of Hawai'i Maui College (UHMC).

The main campus is located on 78 acres, overlooking Kahului Harbor on the beautiful north shore of Maui. UHMC is an accredited, degree-granting campus of the University of Hawai'i System, offering 32 career and technical education degrees and certificates, as well as four-year Bachelor's degrees in Applied Business and Information Technology, Engineering Technology and Sustainable Science Management.

UHMC has established itself in the region as a leader in Information Technology, Allied Health, Hospitality, Hawaiian Culture, and in its newest program, Sustainable Science Management.

The college is one of the fastest growing in the UH system with more than 4,000 students. It was recently identified among the top 20 fastest growing colleges in the U.S. with enrollments between 2,500 and 4,999. It has established itself in the region as a leader in Information Technology, Allied Health, Hospitality, Hawaiian Culture, and in its newest program, Sustainable Science Management.

## HISTORY

Over the years, the curriculum has changed to meet the needs of residents and the employment needs of its island community. Originally established in 1931 as the Maui Vocational School, it was upgraded to Maui Technical School in 1958, and joined the University of Hawai'i System as Maui Community College in 1965. In 2003, the University of Hawai'i Board of Regents approved it to offer its first four-year degree. And in 2010, it officially became the University of Hawai'i Maui College.

In addition to its main campus, UHMC serves the areas of Lahaina, Hana, and the islands of Lana'i and Moloka'i. Because of its responsibility for educational outreach to these remote areas, UHMC became a leader in developing distance learning programs for non-traditional students in rural communities. In 1983, the College established the first higher education cable television channel delivering instruction via a closed circuit television. By 1988, the Skybridge model was developed and adopted by the University System creating the Hawai'i Interactive Television System (HITS), which now connects the entire island chain.

The college's advancements in technology paved the way for its first Bachelor's degree program in Applied Business and Information Technology (ABIT). The ABIT program combines the best in entrepreneurial education with information technology and liberal arts. The distance learning technology also allows students to obtain Bachelor's and Master's degrees offered at other UH campuses, including UH-Manoa, UH-Hilo and UH-West O'ahu.

## PROGRAMS

The college strives to find ways to better the lives of its local community members. Through the College's Allied Health programs, students can gain certificates and degrees in Nursing, Dental Hygiene, and Dental Assisting. These programs offer foundational medical training and strong community-based clinical training. Facilities include multimedia classrooms, a simulation laboratory, and computer and TV origination classrooms.



Photovoltaic Instruction  
UHMC

The Maui Oral Health Center (MOHC), serves as a classroom and clinical site for the UH Maui College Dental Assisting Program and aims to provide affordable and accessible oral/dental health care to the underserved, low-income, and uninsured families of Maui.

Hawai'i is one of the premier travel destinations of the world and millions of visitors travel to the Islands each year. To meet the demand for one of Hawai'i's fastest growing industries, UHMC developed the Hospitality and Tourism Program (HOST), which trains individuals for employment in small and large hotels and at other sites in the visitor industry. The College's former dormitories, Hale Haumana, are being transformed into a learning lab, which will provide future hospitality managers with hands-on training of running an actual hotel. To develop this unique project,



the college is partnering with premiere resorts, local businesses, and Hawaiian agencies. The hotel will be sustainably built and will include edible gardens.

UHMC's best known program may be the Maui Culinary Academy (MCA), in which students learn and model the best practices of the food service industry (see separate article on page 15). Students operate a full-service restaurant, the Leis Family Class Act, and six casual food outlets. MCA is also a research and training center for the development, sales, and marketing of innovative ideas and food products for farmers and entrepreneurs, and has its own brand of several unique products.

One of the most unique programs in the Liberal Arts area is the Hawaiian Studies program, which allows students to enhance their degree by taking courses in Hawaiian culture, language, history, and philosophy. UHMC recently opened the Institute of Hawaiian Music, which is dedicated to the perpetuation and preservation of Hawaiian music through establishing mentor relationships with successful musicians. Grammy Award Winning musician George Kahumoku Jr., considered one of Maui's artistic treasures, leads the Institute.

The new Bachelors of Applied Science degree in Sustainable Science Management represents UHMC's dedication to developing a new generation of leaders in sustainability. The program integrates topics in energy, ecology, business and management, water and wastewater, agriculture, wastewater management, economics, policy and social science.

#### NON-CREDIT PROGRAMS

The college also offers sustainability-focused training through the Sustainable Living Institute of Maui (SLIM), a non-credit program devoted to such areas as renewable energy, sustainable agriculture, green building, and other areas that integrate a holistic approach to planning and building sustainable communities.

Non-credit courses in other areas are popular on Maui, and the Office of Continuing Education and Training (OCET) provides life-long learners training in workforce and economic development, computer technology, personal enrichment, and trades apprenticeship training. The Maui Language Institute (MLI) program offers courses to match all levels of English proficiency, and is designed as a combination of English language study and

The new Bachelors of Applied Science degree in Sustainable Science Management represents UHMC's dedication to developing a new generation of leaders in sustainability. The program integrates topics in energy, ecology, business and management, water and wastewater, agriculture, wastewater management, economics, policy and social science.



Engineering student  
UHMC

the cultural discovery of Maui. Students travel from Japan, South Korea, China, South America and other world locales to study and enjoy all that Maui has to offer.

#### SPECIAL CAMPUS EVENTS AND CONFERENCES

UHMC has also become a destination for international conferences. In 2005, it hosted the World Hula Conference. In 2006, UHMC hosted the IX Islands of the World Conference of the International Small Islands Studies Association. And, in 2010, it hosted the Postsecondary International Network (PIN) Conference, an alliance of postsecondary institutions dedicated to furthering international education and understanding.

#### HOUSING

UHMC offers student housing that makes it possible for students from Lana'i, Moloka'i, and outlying areas of Maui, as well as Mainland and international students, to attend classes on the Kahului campus. Kulanaa'o, a privately owned and managed apartment complex, is conveniently located within walking distance to the UHMC campus.

#### UHMC'S GLOBAL REACH

Located far from the hustle and bustle of city life, UHMC brings the world to Maui and educates Maui about the world. The dedicated faculty and staff work together to find new and innovative ways to educate and inspire the students of Maui Nui. We hope that you will take the time to visit our beautiful campus and let us show you what UH Maui College has to offer.

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# BUILDING TOMORROW'S WORKFORCE THROUGH STEM EDUCATION



The Maui Economic Development Board (MEDB) has been growing jobs, helping startup companies and diversifying Maui County's economy since 1982. As advances in science and technology during the last decade led to a growing demand for more scientists and engineers across the nation, MEDB was one of the first to recognize the direct correlation between successfully filling 21st century jobs and the ability of our teachers to prepare children in science, technology, engineering, and math (STEM) career fields.

In 1999, MEDB created the Women in Technology (WIT) Project to work in partnership with educators and businesses to strengthen the STEM education-to-workforce pipeline, while initiating programs to motivate under-utilized resources such as women and minorities toward technology-related fields.

Currently, the WIT project offers a wide range of K-12 programs that have been successful in engaging students in STEM through hands-on and project based learning, job shadowing, mentoring and internships. Wherever relevant, cultural elements that help students respect and honor Hawai'i's deep-rooted native traditions and environmental values are woven into the program.

Participants are learning to use GIS/GPS, CAD, Web Design, animation, simulation, robotics and other advanced industry tools to solve real world problems.

Providing STEM professional development workshops to more than 2,500 teachers has been a key underpinning of the program. WIT now reaches 20,000 students annually, stretching across each island.

In 2008, WIT expanded its flagship STEM service learning initiative from Maui to O'ahu with great success. Since then, it has developed a number of best practice models that have been adapted by forward-thinking communities in other states.

The following standout programs are part of MEDB's latest initiatives that have been transforming students from passive learners into active global problem solvers.

## STEMWORKS™: HELPING STUDENTS BECOME BETTER THINKERS

Unlike any other class in Hawai'i's middle and high school curriculum, STEMworks is a multi-faceted, hands-on program where students get to use the most current, high-end technologies in actual community service learning projects. The process teaches them to:

- Acquire and analyze information
- Tackle locally-based issues and provide solutions
- Apply the latest computer design and geospatial technologies

While working on a specific project, students have the opportunity to acquire the latest tech skills, from animation and CAD to engineering design and GPS/GIS. They get to work with local industry partners, gaining the satisfaction of knowing their efforts are contributing toward improving life on their respective islands.

Once a STEMworks team identifies an existing problem/opportunity, each is tasked with creating a project design to customize and test their solution. During the process, they learn how to develop an industry partner relationship, provide an actual deliverable, and maintain an ongoing solution for the future.

## GEOTECH HAWAII: USING COOL TOOLS TO SOLVE PROBLEMS

Recognizing the need to incorporate innovation in the way STEM is delivered, WIT recently launched its GeoTech program, a statewide initiative to integrate the use of geospatial technology into local K-12 schools. The program encourages hands-on learning and real-world application of the latest Geographic Information Systems (GIS), Global Positioning Systems (GPS), and Remote Sensing technologies.

Using geospatial tools with real-life information helps students build and contextualize content knowledge in multiple disciplines. Even elementary students and youngsters in after-school clubs have used GIS and GPS to explore their world, map local assets, and document community conditions and needs. They have worked to solve problems, boosting their skills and content knowledge, even helping them feel better about school.

WIT provides professional development opportunities for teachers, special events for students, ongoing online support for teachers and students, and standards-based curriculum development. Armed with the latest geospatial information and related classroom techniques, educators can then develop their own curriculum to give students a head start towards 21st century STEM careers, as well as valuable exposure to leading industry practices.

## ISLAND ENERGY INQUIRY: TEACHING TEACHERS ABOUT SUSTAINABILITY

Since it began two years ago, WIT's popular Island Energy Inquiry (IEI) program, has trained over 150 educators in its energy science curriculum and expanded from Maui across the state. It is the first energy education program designed for Hawai'i teachers that combines scientific inquiry and engineering design processes with cutting-edge materials and technologies in the classroom. Teachers are using this new knowledge and hands-on activities to help middle and high school students learn about and someday solve the state's energy issues.

Providing STEM professional development workshops to more than 2,500 teachers has been a key underpinning of the program. Women In Technology now reaches 20,000 students annually, stretching across each island.

The 2011 workshop series focused on photovoltaic electricity, wind energy, solar thermal energy and energy efficiency. In addition, the program incorporated presentations from local engineers and other energy industry representatives on various energy topics. Participating teachers also received hands-on kits to take back to the classroom, including miniature photovoltaic modules, a four-foot wind turbine, and energy auditing equipment.

To augment the IED curriculum and make it more tech relevant to teens, a companion Clean Energy Hawai'i STEM iPad app was created this year by NSC Partners LLC, a Maui-based software developer. The iTunes app features Hawai'i-based clean energy content and can be adapted to support innovative energy science education in any community throughout the world.

MEDB is extremely proud of the progress it has made in developing a multi-faceted STEM initiative that will move the entire state forward in building and retaining a talented, innovative and adaptable workforce. A member of the next generation sums it up nicely: *"The STEM program equipped me with tools I can't buy in a store, but tools I can use in life."*

### For more information:

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# MORE THAN SKIN DEEP: THE ENVIRONMENT IS THE ECONOMY

Jill Engledow



In Hawai'i, people often say that the environment is the economy. The state's leading industry, tourism, exists because of the warmth and environmental beauty of the Islands, lush with greenery and flowers, surrounded by a clear blue ocean, caressed by the clean air of trade winds.

But, as anywhere in the world, the value of a healthy environment is much more basic than just beauty. Take water, the most fundamental of elements. Hawai'i's fresh water is collected by mountain forests that pull moisture from the clouds, so protecting the forests is vital to ensuring water supplies. While some have blamed ranching for the negative impact on the environment of livestock, it is now the ranchers who are leaders in reversing these impacts and protecting the lands under their control. For these ranchers, protecting the environment around them is essential to running a successful business.

## NATIVE FOREST DECLINE

In the late 1800s, when ranching was big business in Hawai'i, landowners realized that formerly abundant water supplies were

dwindling as Hawaiian forests died. A native Hawaiian forest is an intricate, multilayered complex that shelters plants and animals, supplies fresh water to the lands below and protects the ocean and reefs from runoff and sediment. Like a great sponge, the forest absorbs water that soaks into the ground to replenish the aquifer.

This system was nearly destroyed as newly-introduced cattle, goats and sheep roamed out of control and ravaged forests. By the middle of the nineteenth century, these animals had seriously damaged the water supply as upland forests turned to grassland. This allowed rainfall to run off, rather than soak in.

Most people thought in those days that the decline of native forests was inevitable, and the only way to maintain the forest was to replace native trees with fast-growing introduced species such as

eucalyptus and pine. Early foresters in Hawai'i did not realize that these imports could not replace the complex rain-catching layers of a Hawaiian forest.

## SAVING THE WATERSHED

The late twentieth century brought greater understanding about the importance of the unique natural ecosystems of Hawai'i. Eager to save the native forest that provided water for its downhill properties as well as most of the population of East Maui, Haleakala Ranch created the Waikamoi Preserve in 1984, placing 5,230 acres under the protective care of The Nature Conservancy. A 14-year study completed in 2009 on the effect of fencing and feral animal removal in Waikamoi showed a 300 percent increase of native plant coverage, while invasive grasses were reduced by half. Botanists who conducted the study were stunned by the dramatic results. The lands managed by the original partnership now provide some 60 billion gallons of water a year, all produced from an amazing forest filled with trees, ferns, mosses, and the sounds of rare native birds that find a home only in this water-rich wonderland.

The idea of protecting remaining forests spread. In 1991, Haleakala Ranch and the Nature Conservancy joined with other private and public landowners to create the East Maui Watershed Partnership, protecting more than 100,000 acres. This forest preservation tool has become a nationwide model of cooperation, a way for landowners to manage by ecosystem, rather than by boundary. Within 20 years, there were nine watershed partnerships in the state, involving 45 private land owners and 24 public agencies and covering close to a million acres.

Cooperation is the key to such efforts, and Maui has a strong track record of working cooperatively to face common threats. When dangerously invasive plants threatened to overwhelm native forests in the early 1990s, partners including local ranchers and other landowners, Haleakala National Park, the County of Maui, the State of Hawai'i, federal wildlife agencies and volunteer groups all pitched in to fight these threats. The organization that grew out of this effort, Maui Invasive Species Committee, recently received nearly \$1 million from the County's Office of Economic Development to fund the ongoing effort to control invasive plants and animals.

## MANAGING RANCHES FOR THE ENVIRONMENT

Maui ranchers are now active participants in the Grazing Lands Conservation Initiative, a nationwide consortium of individuals and organizations working together to maintain and improve the management and health of grazing lands. In Hawai'i, ranchers steward about a fifth of the land mass, with some 750,000 acres in pasture land. Hawai'i ranchers struggle to remain profitable in an isolated location where costs for items such as seed and fertilizer are high and drought often limits the amount of pasture forage available. The initiative is helping these ranchers in their efforts to manage pasture lands sustainably so that, for example,

when rain does come, there is sufficient organic matter in the soil to ensure that the rain soaks in rather than running off. While efficiently collecting and filtering water and even sequestering carbon, well-managed pastures serve an additional public benefit.

A native Hawaiian forest is an intricate, multilayered complex that shelters plants and animals, supplies fresh water to the lands below and protects the ocean and reefs from runoff and sediment.

Haleakala Ranch manager Greg Friel tells the story of a fire that started in the South Maui community of Wailea and jumped the highway into a vacant lot that had been untended for 50 years. Fed by decades' worth of fuel load, the fire was soon roaring toward the housing development on one side of the lot. Friel arrived to unlock a gate so firefighters could reach the fire from a Haleakala Ranch pasture that had recently been grazed. Don't worry about our land, he told the firefighters; concentrate on the homes. Sure enough, as the fire crossed the boundary into the ranch land, it dwindled from roaring flames 10 to 15 feet tall to glowing embers.

Fire protection is just one of the benefits well-managed pasture lands contribute to the environment and the community. Alex Franco is director of the Maui Cattle Co., a consortium of ranchers who are working to raise cattle from start to finish on the island, rather than shipping calves to the mainland as has become the custom. Franco is well aware of the scenic value of Upcountry Maui's rolling green pastures, but he knows such pastoral beauty requires care: "What we need is managed open space, not just open space." For, while ranching may not be the big business it once was, the vast landholdings for which Maui ranchers are responsible make up a major component of the beauty that draws visitors to the islands.

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# LANA'I: THE PEACEFUL ISLE

Sarah Ruppenthal



With no traffic lights, one gas station and 30 miles of paved road, it should come as no surprise that Lana'i is often referred to as "The Private Island." If you travel there, you'll find that this is indeed an appropriate moniker, as solitude will be the first to greet you upon arrival.

It's easy to find tranquility on this diminutive, pear-shaped island. You won't find any shopping malls or fast food restaurants here. But don't be fooled by its appearance: it may be small, but there is no shortage of activity on Lana'i.

The sixth largest of the main Hawaiian Islands, Lana'i has a land area of 140 square miles, the bulk of which is an oasis of sublime beauty. And with a population hovering around 3,200 full-time residents, the island evokes small town charm and an omnipresent sense of family, or 'ohana. It is also a tightly knit community richly endowed with Hawaiian culture and tradition.

However, what really sets this island apart from the rest is a striking juxtaposition of opulence and wilderness. Once blanketed with fertile pineapple fields and winding roads lined with towering Cook Island pines, Lana'i long ago earned the title of "The Pineapple Isle." The once-prosperous pineapple industry was cultivated in 1922 by James D. Dole, and at its peak, supplied nearly 70 percent of the world's pineapples. Lana'i's rich pineapple industry came to end nearly two decades ago, as well as the iconic Dole plantation era; however, economic conditions on the sparsely populated island have not soured. Castle &

Cooke Hawai'i (which owns nearly 98 percent of the island) bought out Dole in 1961 and infused Lana'i with investment capital. Breathing new life into the local economy, the company has provided employment to half of the island's residents and ushered in a lucrative new industry: tourism.

Like many of its neighbor islands, Lana'i has taken advantage of Hawai'i's booming travel market, and it has phased in tourism as its economic mainstay. Today, the island is a quiet haven of exclusive resorts, world-class golf courses and pristine beaches. It also offers an undiluted, authentic Hawaiian experience.

Visitors are drawn to the appealing dichotomy of luxury and seclusion: a vast expanse of rugged, undeveloped land is offset by two palatial resorts—The Four Seasons Resort Lana'i at Manele Bay and the Four Seasons Resort Lana'i, The Lodge at Koele. Owned by Castle & Cooke Hawai'i and managed by Four Seasons Hotels and Resorts, the 102-room Lodge at Koele and the 236-room Manele Bay are home to two world-class golf courses, the Experience at Koele and the Challenge at Manele, respectively.

These award-winning resort courses rank among the best in the world, and draw golf enthusiasts from around the globe. The accolades don't end there. The Manele Bay resort was named one of the World's Best Places to Stay by Conde Nast Traveler in 2010, and one of the 500 world's best hotels by Travel & Leisure magazine. According to Four Seasons Lana'i Public Relations Manager Michelle Edwards, the Manele Bay resort is ideal for an intimate getaway, but it is also a popular destination for incentives groups and conferences, thanks in part to the 12,000-square-foot Lana'i Conference Center. With a monthly occupancy rate hovering around 70 percent, both Four Seasons resorts ensure a steady flow of tourism dollars.



In addition, Four Seasons Resorts Lana'i General Manager Tom Roelens says both resorts combined employ 664 local residents—a substantial segment of the island's eligible workforce. "Tourism is an integral part of Lana'i's thriving economy and is the primary source of employment," said Roelens. "As ambassadors of aloha, we all play an active role in the tourism industry to everyone that visits our beautiful island—from the local fisherman to the school teacher to the resort chefs."

For those who prefer more modest accommodations, there is the 11-room country inn, the historic Hotel Lana'i and Lana'i City Grille. Located in the heart of Lana'i City, the inn is a stone's throw from Dole Park Town Square, an enclave of charming shops and restaurant, most of which are independent and locally owned.

In the heart of Lana'i City, you will find the headquarters of Castle & Cooke Resorts, as well as the Lana'i Culture & Heritage Center, which exhibits historic images and artifacts "of traditional, cultural, historical and artistic value to the people and Island of Lana'i." The residential and commercial hub is also home to the island's only nationally affiliated rental car agency, where travelers can rent a four-wheel drive vehicle to go "off-road" and explore areas such as the Koloiki Ridge Trail, Kaunolu Reserve, Lana'i Pine Archery and the "Garden of the Gods," an awe-inspiring rock garden that lives up to its name.

With the intent to support life and industry on the island, Castle & Cooke Hawai'i developed the 1.2-megawatt La Ola solar farm, Hawai'i's largest solar photovoltaic farm. La Ola now generates up to 30% of power to meet Lana'i's peak time electric needs.

While it may appear to be the premiere destination for world travelers who crave a "private island" experience, there is another force at work behind the scenes on Lana'i.

Lana'i's foray into sustainability may not end there. Last year, Hawaiian Electric Company (HECO) entered into an agreement with Castle & Cooke Hawai'i to purchase 200 megawatts from a proposed wind farm slated for construction on Lana'i's remote northwest corner. If it moves forward, the project will be two-fold: the construction of the wind farm and the construction of an 70-mile-long undersea cable linking Lana'i into an upgraded electric grid and operations system on O'ahu. Project developers say there are plans to eventually connect the cable system to Maui Island. If it is approved, the ambitious project is not only expected to create employment opportunities, but also place Lana'i on the proverbial map in the world of renewable energy.

Until then, tourism will continue to be the top economic driver for Lana'i. And that comes as no surprise, as the intimacy of this small, private island is certain to capture the hearts of visitors for generations to come.

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# ON THE LEADERBOARD: MAUI GOLF

Luly Unemori



Experience at Ko'ele  
LANA'I

Among the world's great golf destinations, few could match Maui's scorecard. Approximately 20 golf courses – public, private, municipal and resort layouts – reside on the three inhabited isles that make up the County of Maui: Maui, Lana'i and Moloka'i.

Each year, thousands of golfers tee it up on these fairways, ranging from local residents and visitors from the U.S. Mainland, to sophisticated travelers from countries around the world including Canada, Korea, Japan, China and Australia.

Maui's popularity as a golf destination is largely due to the golf industry's commitment to providing an experience of exceptional quality. Virtually every major "best of" golf travel list includes one or more of Maui's courses. Honors include some of the industry's most prestigious awards from the likes of Golf Digest, Golf Magazine, Conde Nast Traveler, Zagat Guidebook and Golfweek. The islands' courses have been lauded for everything from the overall quality of their guests' experiences to the caliber of their course design, pro shops, teaching staff, women-friendly policies, customer value, ecological practices and historic preservation efforts.

Many of the world's best professionals, from current PGA and LPGA stars to the greatest heroes of the sport, have competed on Maui, in televised tournaments broadcast to millions of national and international viewers. In the early years, it was ABC's popular match-play series "Shell's Wonderful World of Golf," and what was then known as the Canada Cup (precursor to the World Cup). Later came the LPGA Women's Kemper Open, Asahi-Kyosen Golf Tournament, Ka'anapali Classic, Lincoln-Mercury Kapalua International and LPGA Skins Game, showcasing players from the PGA, LPGA, JPGA or Champions Tours. Maui County continues to host such thrilling events as the Ka'anapali Champions Skins Game and the Hyundai Tournament of Champions.

The most renowned courses are those located in Maui's major resort areas: Ka'anapali, Kapalua, Lana'i, Makena and Wailea.

Although they are closely affiliated with the upscale or luxury accommodations of their respective resorts, these courses also welcome local residents and visitors staying at other hotels or condominiums.

Ka'anapali was Maui's first master-planned resort, an activity-rich seaside community along a golden, three-mile stretch of beach that was once a favorite playground of Hawaiian royalty. Bright and energetic, Ka'anapali Resort offers an endless array of recreational opportunities, including two 18-hole golf courses, the Ka'anapali Kai and the Royal Ka'anapali. The latter opened in 1962 and in its venerable history, has hosted a number of professional tournaments including its most recent, the Ka'anapali Champions Skins Game, starring such luminaries as Jack Nicklaus, Tom Watson, Ben Crenshaw, Fuzzy Zoeller and Fred Couples.

Kapalua, on Maui's northwestern coastline, is akin to a 22,000-acre gentleman's estate, with gracious accommodations, upscale amenities, numerous activities and breathtaking island scenery dotted by stately Cook pines. The luxury resort offers 36 holes of golf at its Bay and Plantation courses, as well as two clubhouses and the 23-acre Kapalua Golf Academy, the only comprehensive learning facility of its kind in Hawai'i. Each January, Kapalua hosts the PGA Tour's prestigious Hyundai Tournament of Champions, showcasing the best Tour players of the year and sponsored by Hyundai Motor America, a subsidiary of Hyundai Motor Co. of Korea.

Makena lies furthest south of the four major golf resorts on the island of Maui. Peaceful and secluded, the resort encompasses one 18-hole course designed by master architect Robert Trent Jones Jr., accompanied by an upscale beachfront hotel and six-court tennis club. The par-72 Makena Golf Course plays on the "wild and woolly" side, its manicured fairways flowing over and along the natural foothills of Mount Haleakala, past natural gullies and stream beds, and amongst acres of kiawe trees. Like many of Maui's golf courses, it offers sweeping views of the ocean and the island's natural splendors.

Wailea offers the most golf of any resort destination in the State of Hawai'i. Its three 18-hole courses – the Wailea Gold, Wailea Emerald and Wailea Old Blue – have collectively earned more than 90 awards and accolades, and are renown for their superb course conditions and ocean vistas from virtually every hole. Each summer, Wailea Golf Club's 12-acre training facility is transformed into the Celestial Cinema, the main venue of the star-studded Maui Film Festival. Wailea is also home to Hawai'i's only David Leadbetter Golf Academy, and is the former site of the Champions Skins Game, LPGA Skins Game and Asahi Kyosen Golf Tournament.

The island of Lana'i boasts two spectacular par-72 resort courses, the Experience at Koele designed by Greg Norman and Ted Robinson, and the Challenge at Manele, created by Jack Nicklaus. The Experience is Lana'i's mountain course, built high on the island's rolling hills and featuring dramatic views and elevation changes. In contrast, the Challenge is located at sea level, on hundreds of acres of lava fields with a dry, desert-like terrain. The courses are affiliated with the island's two world-class resort hotels, both managed by Four Seasons Hotels and Resorts.

Beyond the resort areas, Maui County is also home to two private clubs, an oceanside municipal course in Waiehu, and an excellent selection of public tracks, including popular courses at Maui Lani, Waikapu, Pukalani and Kihei. The Ironwood Hills and Cavendish courses provide recreational golf on the islands of Moloka'i and Lana'i, respectively.

Aside from offering recreational opportunities, Maui's golf industry plays a significant role in the local economy. They serve as high-value amenities for Maui's hotels and resorts. They enhance real estate sales for adjoining residential communities. Their marketing efforts add millions of dollars to the state's economy – more than \$20 million annually from the two televised golf tournaments alone. Their clubhouses provide space for restaurants and retail shops, and their outdoor areas are popular sites for numerous special events including private group functions and unforgettable weddings.

The golf courses additionally provide job opportunities for employees with specialized skills in sports, landscaping, operations, business administration, retail and sales and marketing, among others. They function as drainage areas for surrounding residential communities, make productive use of Maui's limited land area, and help preserve the islands' open space in an aesthetically pleasing manner. Not least, they are substantial supporters of the greater community, through numerous charitable endeavors that have contributed millions of dollars for nonprofits and community organizations throughout Maui County.

With so many eagles and birdies on its scorecard, little wonder that Maui County commands a perennial spot on the world's leaderboard of great golf.

# MOLOKA'I: THE FRIENDLY ISLE

Sarah Ruppenthal



L-R: Kupuna Pilipo Solatorio, Halawa Valley  
MOLOKA'I

A trip to the Island of Moloka'i could very well convince you that time travel is possible. A stark contrast to the modern accoutrements of neighboring Maui and O'ahu, Moloka'i is secluded and unspoiled, ostensibly impervious to 21st century trappings. And it intends to stay this way.

Thirty-eight miles long, ten miles wide and encompassing a land area of 261 square miles, Moloka'i, known as the "The Friendly Isle," is the fifth largest of Hawai'i's six inhabited islands. Moloka'i's amicable nickname is apropos, as visitors are made to feel welcome here, and the community itself is tightly knit. According to recent census data, 7,404 residents call the island home, and roughly 40 percent of the population is of Native Hawaiian ancestry.

What sets Moloka'i apart from the rest of the Hawaiian Islands, however, is its rustic tranquility and exceptional natural beauty. Little seems to have changed over the decades. Accessible only by boat, ferry or small plane, the island has been left virtually untouched by time. The Friendly Isle boasts pristine beaches, towering sea cliffs, serene coastlines, rugged landscapes and Hawai'i's largest reef system.

Moloka'i's largest town, Kaunakakai, offers a snapshot of 19th century Hawai'i, with several original structures and storefronts

that have stood the test of time. Kaunakakai's business district is a mere three blocks long, and is located just a few miles from the island's single airport. It is the retail nucleus of the island, with ample meter-free parking, a pair of gas stations, one art gallery and a handful of charming "mom and pop" establishments that sell homegrown goods and tend to close early—even on the weekends. It's no surprise that visitors to this remote island find themselves transported to another time and place.

To say that Moloka'i is a quiet place is an understatement. Yet, in the absence of shopping malls, fast food restaurants and traffic lights, this sleepy island will awaken the senses with its distinctive charm and character.

But behind this pastoral exterior lies a burgeoning local economy, one that has persevered despite a series of formidable setbacks—a testament to the spirit and resilience of the people who live there. The people of Moloka'i have a well-deserved reputation for entrepreneurship, and a significant and successful

subsistence culture underpins the economy. In recent years, Moloka'i has made significant gains in diversifying its economy, particularly through the growth of entrepreneurial enterprises.

Over the last decade, principal economic variables on Moloka'i have included tourism, cattle ranching and diversified agriculture. Of these, diversified agriculture has taken center stage as the island's primary economic driver, according to Moloka'i Chamber of Commerce President Robert Stephenson. With the closure of Moloka'i Ranch (which owned roughly a third of the island and operated its sole resort at the time, the Sheraton Moloka'i Lodge) in 2008, nearly 15 percent of the local workforce lost their jobs. To make matters worse, Stephenson cites a number of additional obstacles: economies of scale, the need to import nearly all of the inputs, fluctuating costs of outbound freight and the dependence on the biweekly arrival of freight shipments in Kaunakakai Harbor. All of this, says Stephenson, yielded a set of unique challenges for Moloka'i.

In spite of this, the community has—and will continue to—overcome these economic hurdles, evidenced by an influx of specialty and organic farming operations on the island. "Agriculture is really the centerpiece of Moloka'i's private sector," says Stephenson, "and it will only continue to grow."

To many, this does not come as a surprise. The idyllic, agrarian way of life—fishing, farming and ranching—has existed for generations on Moloka'i. Today, it is the island's economic mainstay.

Stephenson estimates there are ten community-based, organic farming operations that produce a range of export crops representing the best of Hawai'i's natural bounty: certified organic papaya, mangoes, coffee beans, purple sweet potatoes and macadamia nuts. These farms are owned and operated by local residents, many of whom learned to cultivate crops from previous generations of subsistence farmers.

In addition, Moloka'i has emerged as a major player in the growing seed corn industry, with three seed corn operations: Dow AgroSciences, Mycogen Seeds and Monsanto Hawai'i. According to Monsanto Hawai'i, the seed industry, valued at more than \$200 million, is currently the state's largest agricultural commodity, surpassing both sugar cane and pineapple. It is also an industry with a promising future, as the rising global population will drive the demand for agricultural goods.

Moloka'i has developed a national reputation for producing high-quality seed corn and the industry is now the largest provider of private jobs on the island, generating as many as 200 full-time and seasonal positions for local residents. The industry also draws "seed enthusiasts" from around the globe, which has yielded a niche travel market for the tiny island. Additionally, these seed companies play a pivotal role within the community,

supporting several nonprofit groups and events through employee volunteerism, in-kind contributions and grant funding for education, environmental stewardship, healthcare and human services.

Another significant industry is one that is commonplace throughout Hawai'i: tourism. Moloka'i caters to a particular type of traveler, however, one who desires an "atypical," authentic experience, which is exactly what the island will deliver.

To many, this does not come as a surprise. The idyllic, agrarian way of life—fishing, farming and ranching—has existed for generations on Moloka'i. Today, it is the island's economic mainstay.

The island may be diminutive in size, but there is no shortage of cultural, archeological, natural and recreational wonders. From a guided mule ride into Kalaupapa National Historical Park to an eco-tour showcasing endangered native plants and birds within the Kamakou Preserve, it is little wonder that Moloka'i has become one of Hawai'i's most treasured destinations.

With only one resort, Hotel Moloka'i, prospects for overnight accommodations may seem scarce, but with a bevy of campgrounds, bungalows, condominiums and bed-and-breakfasts scattered across the island, Stephenson reports there are approximately 300 rooms available at any given time.

The people of Moloka'i are working for a future that will sustain both the *'aina* (land) and its population. They are dedicated to constructing an economic infrastructure that balances traditional cultural and social values, provides sustainable employment and economic growth, and preserves the openness which makes Moloka'i truly "The Friendly Isle". Judging from the looks of things, as Stephenson says, "Moloka'i is on the right track."

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# THE APOSTLE OF LEPERS & SERVANT OF GOD

Vincent Ryan Linares



Left: Father Damien Right: Bishop House  
KALAUPAPA, MOLOKA'I

Today, Father Damien, The Leper Priest of Moloka'i is well known throughout the world and especially since his canonization to sainthood in October 2009. St. Damien's personal history, and his great influence on 19th century Hawaiian history itself, since first contact in 1786, can be evaluated in many ways.

The most significant measure of his historical value to the State of Hawai'i is the respect garnered him. Today his bronze statues stand in two prominent places in the United States: One stands in the U.S Capital along with King Kamehameha - - one of two state statues allowed in the U.S. Capital, and another stands prominently in front of the Hawai'i State Capital building in Honolulu.

An additional testament to St. Damien's contributions to the State and to mankind, one that will surely bring continuing economic

benefits to the State of Hawai'i, is the establishment of a Federal National Park at Kalaupapa, Moloka'i, long time home to the leper settlement established in the 19th century that gained international attention—much of it highly critical at first, during Damien's life there.

Before his sainthood, and well before the Federal government's establishment of a park, increasing numbers of pilgrims made their way to Moloka'i to visit Kalaupapa—not an easy journey, now or then, since the Settlement is a very isolated peninsula,

surrounded by rough seas on three sides and steep cliffs at its back. Kalaupapa has always been a very difficult place to reach which was the intention of its original planners—total isolation of the lepers.

Today, in spite of access issues, the number of visitors to the Settlement continues to grow, with the expectation that once the

To many, Kalaupapa is, and will continue to be, a holy shrine, a place once horrible but where now, given St. Damien's work and that of other countless people, the largesse of the human spirit, in spite of hardships, impediments, & criticism, is celebrated.

park itself is finished and appropriate access issues are solved, the Kalaupapa Settlement and St. Damien's life there will witness growing numbers of visitors, each visitor making an economic-social contribution to both Moloka'i and the State.

Little known to many is that given the advancement of worldwide communications in his day, the telegraph, specifically, and its extensive use by newspapers, Father Damien's work became famous worldwide, much like Mother Theresa's work in India in her lifetime. He was especially famous in England, due to newspaper coverage of his work. Subsequently, his pioneering, hands-on work with thousands of lepers who had been dumped for years in an underfunded and mismanaged settlement was a cause of great embarrassment to the Kingdom of Hawai'i, as well as to the established organized religions in the Islands—including his own Catholic Church.

Gaining fame he neither wanted nor accepted, Father Damien was to spend many of his early years in Kalaupapa in constant conflict with the governmental and religious agencies responsible for assisting the Settlement, causing them great loss of face and criticism due to ever increasing negative publicity about the Settlement.

Furthermore, relationships with the Kingdom and his own Church were made no easier, given his personality, his passion for his work, his mercurial temperament, and his uncompromising advocacy for his stricken people. Like most zealots, he was

impatient with those who impeded for any reason improvements to the lives of the patients in Kalaupapa. During his life there seems to have been no middle ground about supporting him, for he was either well liked, and or highly criticized. With his death, the controversy surrounding his life, his mission, his accomplishments, and his mercurial personality did not abate.

Of great historical importance, and in strong defense of Father Damien's life and of his contributions to Hawai'i and to the eradication of leprosy, was a letter written by noted author Robert Louis Stevenson in 1890. Soon after his death, and in face of the international praise for his life's work, Father Damien was brutally criticized in a local religious Honolulu newspaper by a highly influential Protestant minister, Revered Hyde—a man who through his published words fueled the negative rumors about Father Damien's behavior during his life.

It is important to know that the social-political rivalry between established religions in Hawai'i was quite rigorous in the late 19th century, with Father Damien often times an issue of great contention between the powerful Protestant community and the emerging Catholic Church. Stevenson's letter, published internationally, was a full-blown skewering of Rev. Hyde, along with a brilliant defense of Father Damien. Such publicity, coming from such a recognized international literary giant, was highly instrumental in securing Father Damien's place in history both in Hawai'i and worldwide. Rev. Hyde's harsh comments about Damien and Robert Lewis Stevenson's defense of Damien's humanitarian contributions can be found in the book [Father Damien, an Open Letter to the Reverend Dr. Hyde of Honolulu](#).

Throughout the late 19th century, and well into the early 21st, Father Damien's life and accomplishments in Hawai'i became increasingly recognized. Because of his fame, his human remains, much to the unhappiness of many Hawaiian residents, were returned to his native Belgium at the request of the Belgian government. Today, his now-saintly remains lie buried in a beautiful marble crypt in St Joseph's Church in Leuven, Belgium, where he began his priestly life as a young seminarian.

On October 11, 2009, Joseph De Veuster—Father Damien—was canonized in Rome by Pope Benedict XVI at Saint Peter's Basilica.

# MAUI TIMESHARE NO KA 'OI

Howard Nusbaum



There is a saying on Maui that typifies the generally feeling about Hawai'i's second largest island: Maui no ka 'oi, Maui is the best. Certainly when it comes to the state's renowned visitor industry, Maui takes a back seat to no one and has developed a widely recognized international brand distinctly its own.

More significantly, Maui consistently produces some of the highest room rates and occupancies in the state, and routinely captures awards from the most respected travel outlets in the world including Conde Nast Traveler, Travel + Leisure, TripAdvisor, Travelocity, Successful Meetings, and Meetings and Conventions. Once the exclusive destination of Hollywood's elite, the world has come to know Maui and has been flocking to its sun-drenched shores in droves.

One of the biggest reasons for Maui's success in attracting travelers worldwide is the dynamic timeshare segment of the island's visitor industry, a segment that has grown dramatically in recent years and includes some of the biggest hospitality brands in the world. In fact, Maui has the most timeshare units of all the islands, representing 33.7 percent of the total state supply. In 2009, Maui's timeshare sector generated \$40.2 million in total tax revenues, nearly half of the industry's \$85.7 million in revenues statewide, according to the latest data in [An Analysis of the State of the Hawai'i Timeshare Industry: 2010 Edition](#) by Hospitality Advisors LLC and its 2011 supplemental report.

Timeshare visitors stay for nearly a week, travel in larger groups and spend more money. Combined with their destination loyalty, these attributes make timeshare owners a particularly desirable visitor.

Moreover, Maui's overall timeshare sector is again on track to outpace the island's overall visitor industry by two key measures: the value of investment in new construction and annual occupancy rates (trends also mirrored statewide). The success of Maui's timeshare sector is even more impressive when considered against the bigger picture of tourism in many major markets still struggling to recover from the worldwide economic downturn in 2008-2009.

Approximately \$18.3 million was spent on capital investment for timeshare projects on Maui in 2009 and 2010. Statewide, capital expenditures for timeshare projects totaled nearly \$203 million, most of that for new construction. That compares with the fact that presently there are no hotel-only construction projects in Hawai'i, and the percentage of hotel rooms that make up the state's available lodging rooms has declined from 70% to 57%

of total inventory over the past decade. The shift reflects in large part the booming popularity of timeshare ownership on Maui and throughout the state.

Timeshare visitors stay for nearly a week, travel in larger groups and spend more money. Combined with their destination loyalty, these attributes make timeshare owners a particularly desirable visitor.

The value of new construction is not the only measure of the strength of Maui's timeshare sector. Room occupancy rates, a key indicator, particularly during tough economic times, shows that visitors are voting with their vacation dollars to go the timeshare route. The most recent data available shows that Maui's timeshare properties enjoy a 91.6 percent occupancy rate, the highest of all the islands. In comparison, Hawai'i's traditional hotel rooms posted a 66.5 percent occupancy rate during the same reporting period. The consistent and resilient occupancy rates of Maui's timeshare properties, as well as those statewide, have helped to stabilize Hawai'i's visitor industry and the broader economy. Timeshare visitors can be counted on to arrive year after year and spend money on local businesses, regardless of the state of the economy. That has meant jobs for nearly 1,500 Maui residents and nearly \$64 million in annual wages in 2009.

The economics and appeal of timeshare properties go far beyond the county of Maui and its residents. Timeshare ownership is also getting a lot of attention from individual travelers, as well as major visitor industry companies and destinations, because the upside is so compelling. An individual generally purchases a real estate interest in a timeshare project, which usually equates to a week's stay at that property. It is a commitment to a travel lifestyle as well as a commitment to the State of Hawai'i. Depending on the particular project, individuals can exchange their ownership at one timeshare property for other destinations, or can sometimes bank the time for a longer vacation.

The boon for an individual is that he or she puts money into a known quantity, a high-value travel experience, usually with more available space and room amenities than a traditional hotel room. That often means the traveler brings along more family members on vacation. The benefit for timeshare developers is that timeshare purchasers, have, in essence, paid in advance for the room nights, and enjoy strong brand and destination loyalty. That

last point is particularly important for destinations, as the individual travelers have chosen to invest in a particular market, thus strengthening their ties to a specific locale.

Demographically, timeshare owners are more mature and have higher income and education levels than the traditional hotel traveler. According to research conducted for the ARDA International Foundation, the mean age of a timeshare owner is 52.2, median income is \$78,400 and 61 percent hold college and/or professional degrees. Overall, reports show that timeshare visitors stay for nearly a week, travel in larger groups and spend more money. Combined with their destination loyalty, these attributes make timeshare owners a particularly desirable visitor.

Interestingly, it is not only the offshore traveler who is attracted to timeshare opportunities in the Hawaiian Islands. Over 6,000 Hawai'i residents have also purchased timeshare ownership in local properties. The impact of timeshare ownership not only on Maui, but throughout Hawai'i, is felt in a number of ways and the indicators show the importance of this sector to the state's overall economy. For example, Hawai'i's timeshare industry contributes \$85.7 million a year in state taxes and employs about 4,500 people, almost all of whom work in full-time jobs. Those employees earn a total of nearly \$294 million a year in salaries and wages. In addition, Hawai'i timeshare units earned \$118 million annually in total rental revenue, based on 558,209 total nights rented. The average price per night per unit during the study period was \$205.

The impressive numbers add up to one thing – as the visitor industry is critical to Maui's economic success, the timeshare sector is now a critical element in strengthening and developing Maui's visitor industry by providing new and growing revenue and jobs for residents. The figures also reflect the larger fact that Maui remains one of the world's premier visitor destinations with its combination of breathtaking scenery, unbeatable weather, and a culturally diverse and welcoming people.

Native Hawaiians have a saying that captures the warmth and aloha spirit of their culture – "E Komo Mai!" it literally translates to "please come in!" But in the larger context, it can also mean, "you are always welcome in this home." that is the innate appeal of Maui, and of Maui's vibrant timeshare industry.

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# REAL ESTATE ON MODERN MAUI

Joseph W. Bean



Everywhere you go on Maui, you hear tantalizing Valley Isle real estate stories. Visitors find themselves caught up in the magic and daydreaming their own Maui fantasies

Some are thinking of living on Hawai'i's second largest island, others are thinking of fractional ownership of a place that they can feel at home in for several weeks or months each year. Still others are making plans to invest in Maui real estate now or to retire to the paradise of Maui later. Many find it impossible to wait until they reach retirement age to own a home from which they can drive to Haleakala volcano, "Heavenly" Hana, historic Lahaina, the world-class beaches of Maui's west side and north shore, or to the glorious expanses of sun and sand that stretch along south Maui from Ma'alaea through Kihei to Wailea and Makena. Even if you haven't yet heard any Maui real estate stories, you will have dreams of your own as soon as you see the island.

## PLANTATION PAST

Not so long ago, Maui was a plantation island growing pineapples and sugar cane, and almost the entire population of the island lived in plantation camps—company towns with small houses for families and barracks-like group homes for single men.

When you fly into Maui now, Alexander & Baldwin's 37,000 acres of Hawaiian Commercial & Sugar Company cane fields provide the lush green welcome mat under your plane. A&B—the biggest sugar company on Maui, then and now—set the stage for modern Maui real estate starting in 1949. The company began construction of a town near Kahului Harbor for plantation workers who wanted a piece of the new "American Dream" of home

ownership. According to the Maui News of July 13, 2009, to buy a home in "Dream City," or Kahului, a worker had to pay a \$600 down payment and \$50 per month. Maui News reported, "Many of the original owners remain in their homes today. Homes now sell for over \$300,000, more than 30 times the original investment made by the proud early participants in a new way of life. Kahului is truly an American success story." In fact, many homes in Dream City originally sold for \$6,000 or less, making the 2009 value 50 times more than the investment. Meantime, many of the plantation houses—moved or at their original sites, modernized or kept simple—are still part of the island's real estate stock.

## LAUNCHING MODERN MAUI

In 1996, as Maui was taking a huge leap into the high technology of the late twentieth century, Major General Edward V. Richardson, then Director of Hawai'i State Civil Defense and now a Vice President of the Board of the Pacific Aviation Museum, shared his Maui real estate story. The crowd, including Senator Daniel Inouye, was gathered to celebrate the opening of Pacific Disaster Center in Kihei. "Some of you may know that I was born and raised here on this island," Richardson said. "I am a Maui boy. Before the Second World War, Kihei was nothing but miles and miles of barren beaches, thick with kiawe trees with their dangerous thorns, and one unpaved sand road. There was no running water—wells provided the only source of water—and there was no electricity. My grandfather bought 2 1/2 acres of land on the beach here for five dollars an acre, or \$12.50. I often think of how a rich I would be today, if he had only spent just a little bit more, maybe \$100 and bought 20 acres of beach property."

Maui real estate wealth was not the only point of the Civil Defense Director's story. He was also talking about Maui as a beneficiary of military technology that was becoming available for civilian uses. Indeed, Maui hosts many thriving high-technology organizations today; some are military, some are federal contractors, and many have been developed by private sector entrepreneurship. They are important to career opportunities, and therefore, to the housing options on Maui.

Far from the sleepy, rural island dominated by plantations, Maui today has both bustling business districts and some undeveloped acreage. Three significant districts of luxury resorts and residences have developed. Two are on the west side, north of historic Lahaina, which was once a mecca for the whaling industry. Those are the master-planned communities of Ka'anapali and Kapalua, where the PGA starts the golf year each January. The third is on the west-facing south shore, and includes the resort and community of Wailea, as well as the more remote hideaway of Makena.

Workforce towns have developed throughout Maui, too, and much of the island's north coast and upcountry area are still primarily rural and agricultural, little changed since the plantations gave way to individual, private land ownership. In the far eastern district of Maui—comprising Keanae, Hana, Kipahulu, and Kaupo—the communities are largely agrarian, and still very Hawaiian, but many people have also chosen to build homes for themselves and their families in this area.

Hawaiians have always said, "Maui no ka 'oi," meaning Maui is the best. In the twenty-first century, absolutely anyone looking for a home, a lot, an apartment or even a good long-term investment will find a place that is "no ka 'oi," too. In Wailuku, the seat of Maui government, the old days live on with a modern touch. Upcountry, among the farms and villages, a buyer might choose to be either nestled in a forest or perched on a rise with bicoastal, million-dollar views. From the simplicity of Kahului—still Dream City for some—to the elegance of Wailea and the west Maui resort towns, there is truly something for everyone on the island that was the capital of the Hawaiian Kingdom, until the center of government shifted to O'ahu.

Even though no one is going to find a home on Maui for \$6,000 as plantation workers did in 1949, or beachfront lots for \$5 an acre as Major General Richardson's grandfather did, there are still great opportunities at all levels on the island. In fact, from 2001 through 2010, average sale prices for condominiums on Maui rose 12.4% annually. During the same 10 years, average sale prices for homes and vacant land rose at annual rates of 6.4% and 5.7%, respectively.

Opportunities for homeownership and profitable real estate investment are as plentiful on Maui as the world-class and world-famous beaches. Far more important, Maui is a place where real estate dreams come true every day.

## For more information:

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www.RAMaui.com

# MAUI COUNTY: LEADER IN RENEWABLE ENERGY



In July 2011, the County utility, Maui Electric Co. (MECO), announced plans to integrate even more renewable energy into a more efficient grid. The County of Maui is fully committed to the goals of the Hawai'i Clean Energy Initiative (HCEI), a State partnership with the U.S. Department of Energy, which seeks to obtain 70% of energy needs from renewable sources, including 40% of electricity supply from renewable source generation by 2030.

Maui is blessed with abundant natural resources – surrounded by the ocean, enjoying long hours of sunshine, consistent winds, fertile arable land, and geothermal potential. Its geographic location (known as the “Crossroads of the Pacific”) and its excellent infrastructure give renewable energy businesses considering Maui ample justification to choose the County as a demonstration site and test bed for new and emerging technologies.

## WIND ENERGY

Maui County is already a hotbed of activity. In 2006, First Wind, an independent wind energy company, established the Kaheawa 30mW (megawatt) facility in one of the windiest locations in the State, above Ma'alaea in the West Maui Mountains. Kaheawa supplies about 9% of Maui island's energy needs and the second phase of the project, supplying 21mW, is pending. Sempra Energy's Auwahi Wind project at Ulupalakua Ranch will also add a further 21mW to Maui's electricity grid once fully operational in early 2013. The State of Hawai'i and the utility Hawai'i Electric Co. (HECO) have announced plans for an interisland electricity grid, linking 200mW wind farms on Lana'i and Moloka'i with O'ahu, via

an undersea cable connection. The project, with a projected cost of \$3 billion and a completion date of 2020, is currently in the early planning stages.

## PHOTOVOLTAIC (PV)

Solar PV technology is another mature source of renewable energy, and several projects and businesses are already operational in Maui County. On Lana'i, Castle & Cooke's 1.2mW La Ola solar facility that opened in 2009 has 7,400 PV panels that are capable of supplying 10% of Lana'i's total energy needs and 30% of peak demand. On Maui, there are well over a thousand solar rooftop installations under the Net Energy Metering program, supplying about 7% of the grid total. Concentrating Solar Power (CSP) systems and other solar power generating technology and storage systems are currently being developed on Maui for both customer-sited residential and commercial applications.

## BIOMASS

Power generation from biomass – energy stored in biological material – has a well-established history on Maui. Hawaiian

Commercial & Sugar Co. (HC&S), a subsidiary of Alexander & Baldwin (A&B) and the last remaining sugar plantation in the state, is contracted by Maui Electric Co. (MECO), the island's electricity utility, to produce up to 16mW of Maui's energy needs. HC&S generates this power primarily from bagasse, the fibrous material remaining after sugar cane has been squeezed and processed. Converting waste to energy is another form of harnessing biomass. Methane piping and vents are already installed in (closed) phases of the Central Maui landfill and a planned 1.5mW facility is expected to be operational in 2013.

## BIOFUELS

Production of locally-grown feedstock to produce transportation fuels or oil for electricity generation not only avoids importation of fossil fuels but mitigates the risks of potential supply disruption. Maui Pacific Biodiesel, a pioneering renewable energy company founded on Maui, was one of the first businesses in the country to set up a biodiesel refinery, establishing a production operation in 1996 at the Central Maui landfill to recycle used cooking oil from local sources. The company now manages multiple plants on O'ahu, the Big Island, and the mainland U.S. In 2010, HC&S announced federal funding for crop research initiatives and biofuel energy conversion technologies at its Maui plantation. Other potential biofuel projects include algae and crops ranging from jatropha to sorghum and soy beans, using Maui's extensive fertile arable land.

## GEOTHERMAL

Testing for sources of geothermal energy is underway on the slopes of Haleakala, Maui's dormant volcano. The energy developer Ormat already produces 30mW of continuous “firm” geothermal power on the Big Island, a capacity it hopes to match on Maui by 2015 if test wells prove successful (past experience suggests that only 1 in 5 test wells prove viable).

## WAVE AND TIDAL ENERGY

Power generation from ocean resources is also in the development stage on Maui. Oceanlinx, an Australian company, is planning to generate 500kW from floating platforms anchored offshore. This technology is being tested for converting energy produced into electricity or for providing desalinated industrial or potable water from sea water.

## ENERGY STORAGE

Renewable energy storage has the potential to regulate and “smooth” intermittent sources such as wind and solar PV, providing valuable grid stability. The First Wind and Sempra wind projects on Maui both involve significant battery storage capacity and utility-scale battery technology is at the cutting edge of renewable energy development. Another form of electricity storage technology is pumped hydro, which involves pumping water to a reservoir at a

higher altitude when sufficient renewable energy is available. During periods of intermittent supply, the water uphill is released, driving turbines to produce electricity. Between all storage technologies, the County is aiming to establish a system that can supply stored power for up to one week.

Maui is a leader both in the state of Hawai'i as well as the nation for the rate of renewable energy production. As much as 15% of Maui's energy needs are derived from a combination of wind, solar, and biomass sources, and at times this impressive amount rises to as much as 30%.

## ELECTRIC VEHICLES (EVs)

Maui County is actively preparing for an influx of EVs, both by updating regulations to encourage installation of EV charging stations, and by encouraging partnerships with companies that are developing infrastructure statewide. A State contract with the private company AeroVironment, announced in 2011, will fund the deployment of up to 320 charging stations throughout Hawai'i, including Maui. Once deployment is completed, Maui will be part of the nation's first statewide public charging networks supporting electric vehicle drivers.

## SMART GRID

On the demand side, two “smart grid” projects on Maui were announced in 2011. The “smart grid” is a system of integrated technologies that enable two-way communication between the electric utility and customers' meters to allow for reduced energy use, more efficient supply, and improved integration of variable renewable energy resources. One, at the Kihei substation, involves an investment of approximately \$38m. from the Japan-based New Energy and Industrial Technology Development Organization (NEDO). The other is a \$14m. demonstration project at the Wailea substation, funded by the U.S. Department of Energy.

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# SCIENCE AT THE SUMMIT

Jill Engledow



Pan-STARRS PS1 Telescope  
HALEAKALA OBSERVATORY  
Photo: Rob Ratkowski

When business and community leaders in the 1980s began looking for a “third leg” to balance Maui’s economic engines of agriculture and tourism, they decided to focus on a unique Maui asset: the scientific value of the summit of Haleakala. That decision has paid off with a growing high-tech industry involved largely in activities related to the astronomical facilities at the top.

According to a 2008 report issued by the Hawai‘i Science & Technology Institute, “among private-sector technology workers on Maui in 2007, the largest concentration was in the information and communications technology and defense/aerospace markets, which employ 993 and 864 people respectively. Many of these activities are overlapping and interrelated.” Between 2002 and 2007, Maui’s technology sector employment grew 3.7 percent annually, faster than the statewide average of 2.5 percent. In 2007, the private tech sector contributed an estimated \$106.4 million to Maui’s economy.

## BOARD PROMOTES TECHNOLOGY

Much of this high-tech growth stems from the efforts of the Maui Economic Development Board (MEDB), a not-for-profit established in 1982 to focus on promoting economic growth, with an emphasis on high technology. Though the not-for-profit organization works in many areas to strengthen existing industry and diversify to new opportunities, it has been key in leveraging the value of Haleakala’s summit.

Each year, MEDB organizes the AMOS Conference, which brings some 600 participants from around the world to discuss the latest advancements in space technologies. Its efforts were key in bringing to the island the Maui High Performance Computing Department of Defense Supercomputing Resource Center. Among other tasks, the supercomputer supports the summit-based Space Surveillance System for imaging and tracking of space objects.

## CLEAR SKIES DRAW SCIENTISTS

The University of Hawai‘i’s Haleakala High Altitude Observatory Site is one of the 5 best sites in the world for astronomy and space surveillance research. High above the dust clouds and water vapors found in the lower atmosphere and far from great land masses, the air is clean and calm. Light pollution is minimal. The island’s location also allows scientists to view southern skies that would not be visible from the continental United States. The weather on Haleakala tends to be better than on other high mountains, and temperatures are moderate for the 10,000-foot altitude. The paved road to the top is rarely closed by bad weather.

The other great astronomical site in the Islands is on Hawai‘i Island, atop Mauna Kea. Working at Haleakala can be easier on researchers, because there’s more oxygen in the air than at the 14,000-foot elevation of Mauna Kea, and well-oxygenated brains focus better on the job at hand. Still, even on Haleakala, the air is thin, and the new Advanced Technology Research Center at the 2,800-foot level provides a high-oxygen home for scientists to fine-tune their instrumentation before taking it to the rarefied atmosphere at the summit.

The potential of Haleakala as an observatory site was recognized early. In the early 1950s, Grote Reber built a rotating antenna at Haleakala, the first high-altitude telescope in Hawai‘i. The results were disappointing, leading Reber to recommend that radio astronomy observations not be located on high mountain peaks.

The University of Hawai‘i’s Haleakala High Altitude Observatory Site is one of the 5 best sites in the world for astronomy and space surveillance research.



Visiting student  
FAULKES TELESCOPE



L-R: J.D. and Jeopardy! television show "Clue Crew"  
FAULKES TELESCOPE NORTH

In 1955, the University of Hawai'i Department of Physics sent a graduate student to do studies on the brightness of the sky near the sun. These tests showed that Haleakala was an outstanding site, but there were no funds to build an observatory. Help came from Dr. C. E. Kenneth Mees, retired vice president for research at the Eastman Kodak Company and the developer of the color film Kodachrome, who donated Kodak stock worth \$15,000. The university was able to build a small cinder-block building with a

sliding roof to house a tracking camera and a small wood-frame building to house the observers.

In 1961, Governor William Quinn issued an Executive Order setting aside land at Pu'u Kolekole to be under the control of the University of Hawai'i. This was the beginning of the "Haleakala High Altitude Observatory Site," also known as the Haleakala Observatory. That same year, the National Science Foundation funded construction of a solar observatory, which would contain

a coronagraph telescope for studying the sun's corona. The new facility, dedicated in 1964, was named for C. E. Kenneth Mees, who had continued to support astronomy on Haleakala and in general until his death in 1960.

#### ASTRONOMY AT A WORLD-CLASS SITE

Since those pioneer years, Pu'u Kolekole has seen much growth, and scientists from around the world have come to take advantage of its fantastic astronomical views as new facilities have been built. Ongoing experiments sometimes run for years. From here, the Maui Space Surveillance Site run by the Air Force uses the largest telescope in the Department of Defense to track objects in space. The Advanced Electrical-Optical Surveillance (AEOS) system keeps track of some 10,000 known objects in orbit around the Earth, ranging from weather and communications satellites to "space junk." The LURE Observatory's lasers monitor Earth resources and climate parameters, ocean levels and temperatures, and plate tectonics, as well as helping to improve the Global Positioning System which makes so much modern consumer technology possible. The MAGNUM (Multicolor Active Galactic NUClei Monitoring) Telescope Project works to better understand star formation and other astronomical phenomena. Plans are underway for construction of the Advanced Technology Solar Telescope, which would be the world's largest instrument for studying the sun.

The Advanced Electrical-Optical Surveillance (AEOS) system keeps track of some 10,000 known objects in orbit around the Earth, ranging from weather & communications satellites to "space junk."

An experiment at the summit in January 2011 showed the potential value of high altitude telescopes when the astronomers at the Pan-STARRS PS1 telescope decided to search for potential "killer asteroids." In one night, the Maui scope found 30 objects, but snowstorms in the eastern states prevented other observatories from confirming the observations, so in the end, only 19 of the 30 were pinned down. Pan-STARRS stands for

Panoramic Survey Telescope and Rapid Response System. PS1 is the prototype for an array for telescopes intended for Mauna Kea. Installed at Haleakala in 2010, it has the world's largest digital camera—1,400,000,000 pixels.

Asteroids as small as 40 meters are a threat to Earth—anything smaller will burn up in the atmosphere. NASA has set a goal of discovering near-Earth asteroids down to 140 meters. With the help of the world's best telescopes set in the world's best viewing sites, it's a goal that could some day give earthlings an opportunity to intercept an approaching asteroid before it has time to send humanity the way of the dinosaurs.

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Telescope Mirror Assembly  
(artists rendering)  
AEOS SYSTEM

# MAUI RESEARCH & TECHNOLOGY PARK: A HIGH TECH OASIS



What was once a kiawe-dotted pasture in Kihei has grown into the Maui Research & Technology Park. The concept for the Park and the original entitlement dates back to the early 1980s with local private and public sector leaders intent on economic diversification and job creation, especially in the technology, research and development sectors.

The object was to provide an alternative economic driver besides traditional plantation agriculture (sugar and pineapple) and the visitor industry, which was rapidly growing to dominate the economy. Both of these sectors are notoriously cyclical, whereas the hi-tech sector was correctly perceived as one offering well-paid employment opportunities and some continuity in the event of economic downturns.

The Park occupies about 400 acres in Kihei adjoining the main highway connecting South Maui and the rest of the island. The Park's first building opened in the early 90's, and currently, the Park has approximately 180,000 square feet of lab, office and

data center space. The Research & Technology Park and all current buildings and associated infrastructure represent an estimated \$60 million investment. It is estimated that as much as \$150 million flows through park businesses and projects each year. More than 20 companies and entities are located in the Park in sectors such as optics, directed energy, data fusion, space surveillance/situational awareness, software development and disaster preparedness.

Working in the Research and Technology Park's favor are several advantages for companies considering it as a business site. Those include fast-track permitting, status as a U.S. foreign trade

zone, and robust telecommunications infrastructure, and the lowest commercial and industrial property taxes in Hawai'i. The Park's location in Maui County places it in a Hawai'i Enterprise Zone, which allows for exemptions from Hawai'i income and general excise taxes for specific industries.

## AMONG THE MAIN EMPLOYERS IN THE PARK ARE:

- The Maui High Performance Computing Center (MHPCC), an Air Force Research Laboratory (AFRL) Center established in 1993, currently managed by the University of Hawai'i.
- Akimeka LLC, an award-winning Native Hawaiian health service information technology consulting company. Akimeka is a recognized leader in the Department of Defense health services and logistics sector. In 2008, Hawai'i Business Magazine named Akimeka as one of the State's "Best Places to Work".
- Pacific Disaster Center (PDC), a public-private applied science, information and technology center, working to reduce disaster risks and impacts to peoples' lives and property.
- Maui Economic Development Board (MEDB), a not-for-profit corporation established in 1982 with a focus on diversifying Maui's economy. MEDB partners with the private, public and nonprofit sectors at the local and national levels and its programs assist growth industries, educate and train residents for new career pathways, and build consensus.
- Ardent Management Consulting, a business involved in competitively awarded software development work related to U.S. Department of Homeland Security Geospatial Mapping Initiatives. This work provides Homeland Security leadership with geospatial situational awareness regarding natural and man-made disasters.
- Boeing LTS (Laser Technical Services), which supports the Maui Space Surveillance Site and the Maui High Performance Computing Center for AFRL.
- Oceanit, one of Hawai'i's largest and most diversified science and engineering companies whose client base ranges from Federal agencies to the National Science Foundation and NASA, from the State of Hawai'i and the City & County of Honolulu to private homeowners.
- Pacific Defense Solutions, LLC (PDS), a company experienced in developing technology for Space Situational Awareness. PDS supports programs such as the Spaces Based Space Surveillance program and the Maui Space Surveillance Site.

- The Joint Information Technology Center (JITC), a research and development hub that supports Department of Defense. JITC contributes to meeting readiness requirements by developing sustained business and enterprise solutions and modernizing IT systems.
- The Maui Small Business Development Center, a program of the University of Hawai'i at Hilo and funded in part through the U.S. Small Business Administration, offers business counseling services and training and housing a business research library.
- Goodfellow Bros., Inc, a family-owned general contracting business with more than 80 years experience in infrastructure and environmental projects, and sister-company, Pacific Rim Land, Inc., one of developer partners for the Park.

The Research and Technology Park's developers, Maui R&T Partners, LLC (a partnership of Pacific Rim Land Inc. and Woodbridge Capital Partners LLC), are currently planning expansion and reconfiguration of the Park. They have already selected internationally renowned urban design firm Calthorpe Associates to lead the update of the park's master plan.

Firm founder Peter Calthorpe's vision departs from that of the original 20-year-old plan for the park as a stand-alone complex, and he foresees a mixed-use community integrated with surrounding developments. Calthorpe has suggested reconfiguring land uses allowed within the Park to include residential projects, school sites, parks and a community commercial center with retail shops, restaurants and services for workers and residents. Calthorpe's design also would establish a pedestrian-oriented community around areas designated for "knowledge industries" stemming from innovation, science and technology.

Steve Perkins, project coordinator for Pacific Rim Land, the management arm of Maui R&T Partners, said the R&T Park has in many ways served its original purpose to diversify the island's economy and create opportunities for local students to get jobs. "We'd like to see it grow further," Perkins said. "That's the whole point of economic diversification." Perkins said while the R&T Park has had its challenges during the last 25 years, he's optimistic for its success.

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# MAUI'S AMOS CONFERENCE – A PREMIER INTERNATIONAL EVENT FOR SPACE SCIENCE



“I certainly think this is the premiere space surveillance and technology conference that we have in any place in the world.” –Lt. Gen. John T. Shelton, commander of the Space and Missile Systems Center, Air Force Space Command, and AMOS 2010 keynote speaker.

For 12 years, the Maui Economic Development Board, Inc. (MEDB) has hosted an extraordinary event, the Advanced Maui Optical and Space Surveillance Technologies (AMOS) conference. AMOS is considered to be the largest conference in the world for optical sciences and situational space awareness, and the international audience includes participants from across Europe as well as Asia, Australia, and the Americas.

The conference began in 1999 as a gathering for users of the Advanced Electro-Optical System (AEOS), a 3.67 meter (12 foot) telescope owned by the Department of Defense situated at the Maui Space Surveillance Complex observatory on top of Haleakala, Maui's 10,000-foot-high dormant volcano. AEOS remains the largest optical telescope designed for tracking satellites.

The AMOS conference has proved so successful as a forum in its field that attendance has risen steadily from 180 in the first year to more than 600 participants in 2010. AMOS attracts key stakeholders from a cross-section of experts in the military, space

industry and academia. “Participants tell us they're able to accomplish more in a week's time during the AMOS conference than they might have done in a month back home,” says Sandy Ryan, the AMOS program director.

Ryan explains that one key issue conference participants have been wrestling with is space debris. With modern society dependent on satellites for telecommunications, it is important that orbital space debris not damage invaluable infrastructure in space. Scientists also present technical papers during the conference on topics such as space search and tracking procedures, conjunction analysis (the study of whether objects are likely to collide) the benefits of a geosynchronous orbit, collision risk assessment and collision avoidance.

There is a lot of avoiding to be done, because there are tens of thousands of man-made objects orbiting the Earth. “With the collection of debris resulting from satellite collisions, and objects like astronauts' gloves and tools moving at speeds of up to 17,000 miles an hour in orbit, the need for optical sensors and

constant analysis of satellite health is essential,” says Wes Freiwald, AMOS Conference Chair and CEO of Pacific Defense Solutions, a Maui-based company that develops technology for Space Situational Awareness. “Bringing the scientific community involved in this work together in one place, right here on Maui, is a unique achievement and we are honored to be hosts.”

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Donald Bedard, a PhD. Candidate at the Royal Military College of Canada, says the conference gives him a chance to network, share ideas and receive advice from other space surveillance experts. Jamie Landers, technology program manager with Analytical Graphics Inc., observes that the conference is an ideal way to make contacts with people in research and government positions that can often lead to new contracts. “This is one of the best conferences that we go to every year as far as connection directly with the community.”

The 2010 conference, held at the Wailea Beach Marriott Resort & Spa, included more than 300 students from several Maui schools. It was the first time students were included in the event, and the 2011 conference will repeat the learning experience. The students soaked in the opportunity to hear former astronaut Robert L. Curbeam Jr. talk about one of his International Space Station missions, and they viewed exhibits put together by conference participants.

“Basically, the whole idea was to get them inspired about science, technology, engineering and math,” said Bryan DeBates, the Space Foundation's director of education. Kalama Intermediate School student Noa Harrison said he was inspired by Curbeam's presentation. “It was 17 minutes of film from his space shuttle trip,” Harrison said. “Seeing Earth from space and seeing him walk in space was awesome.”

Another educational aspect of the conference is a Teacher Day, when 25 STEM (Science, Technology, Education, and Math) educators from Maui County are offered an opportunity for

professional development. In 2011, the theme for teachers is Exploring Our Solar System, which includes astrobiology in understanding the planet's fragile environment, underwater exploration, and GPS technology.

Ryan observes that the AMOS conference has contributed to serving as a nexus for networking and scientific exchange. On a personal level, Ryan, who has been with the conference since its inception, says she has found many rewards in meeting the participants who attend from all over the world. “So many of them have become good friends over the years,” Ryan explains.



MEDB, the conference presenter and organizer, is a nonprofit corporation established in 1982 to focus on diversifying Maui's economy. MEDB's mission involves taking innovative actions that strengthen existing industry as well as diversifying through new opportunities.

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# SEEKING THE SUN FROM HALEAKALA

Jill Engledow



Artist renderings  
ATST

In ancient days, when the demigod Maui lassoed the sun from high atop Mount Haleakala, his goal was to improve life for humanity. The days moved far too fast as the sun whizzed across the sky. Without sunlight, fruit would not ripen. There was never enough time to complete the day's tasks. And Hina, the mother of Maui, grew frustrated because it was so hard to dry her kapa cloth, made by soaking the bark of the wauke tree and then pounding it soft and thin. No sooner had Hina laid out her kapa to dry than she had to bring it in again, as the sun made its rapid descent and darkness closed in.

Maui climbed up to the peak of the mountain and lassoed the sun. One by one, he broke off the sun's rays, until the sun begged for life and promised to go more slowly. From that time on, the days were long and bright, and Maui, Hina and all the people had plenty of time to dry their kapa, cook their meals and carry out the tasks necessary to live a good life.

## A CLOSER LOOK AT THE SUN

The newest sun-related project to come to the top of Haleakala (House of the Sun) also has the goal of improving life for humanity.

In these modern times the Advanced Technology Solar Telescope will do so by increasing scientific understanding of the sun. Scientists involved in the \$298 million project say this telescope will be the biggest jump in our ability to study the sun since Galileo, who first discovered changing spots on the sun 400 years ago.

The telescope will be managed by the National Solar Observatory and is funded by the National Science Foundation via a cooperative agreement with the Association of Universities for Research in Astronomy, Inc. It involves a collaboration of scientists and engineers at more than 20 U.S. and international organizations, including the University of Hawai'i. It is expected that the project will pump millions of dollars into the Maui economy, providing hundreds of construction jobs and about three dozen full-time positions. If the permitting process is completed on schedule, construction could be complete in 2018.

The world's largest optical solar telescope will help scientists understand, explain and even predict solar activities that affect the Earth: why sunspots occur when they do, why they wax and wane in an 11-year cycle, why enormous jets of hot solar gas shoot from the surface of the sun, potentially destroying satellites,

disrupting power grids and endangering airline crews and astronauts. "Civilizations have come and gone probably in response to how the sun has changed," as the climate fluctuated in response to solar variability, says Dr. Jeffrey Kuhn of the University of Hawai'i Institute for Astronomy.

The telescope will produce high-resolution pictures and track very quick changes on the sun's surface, seeing and measuring fluctuations in the magnetic field, which is the key to understanding solar variability.

## HALEAKALA: THE WORLD'S BEST SITE

The National Solar Observatory chose Haleakala for this project from 72 possible locations. Two years of data collection showed this mountaintop to have the darkest, clearest daytime skies, at a location already beloved by astronomers for its calm air, reasonably good weather and a dry and dust-free atmosphere. These natural attributes will help scientists see crisp detail with a 4 m large telescope capable of observing objects on the sun that are 30 km across. New adaptive optics technology will greatly increase the clarity of images.

The project also will be able to take advantage of existing infrastructure, such as the Institute for Astronomy's Advanced Technology Research Center (ATRC) in Pukalani. Scientists will design, fabricate, integrate and test equipment related to the solar telescope in this facility, which includes gigabit ethernet and high-speed Internet connection, a "clean room" where they can take optical elements apart without dust contamination, and an assortment of electronic assembly rooms. The facility is uniquely suited to astronomers' needs--for example, optical benches are set on concrete slabs isolated from the building's foundation, so that vibrations in the rest of the building do not affect the work done on the benches.

While scientists eagerly look forward to the telescope's construction, it has been a contentious issue for some. Native Hawaiians have insisted at a series of hearings that the project would have adverse impacts on Hawaiian culture and traditions. Because Haleakala is in the high elevations traditionally called

wao akua (the realm of the gods), some consider the mountain sacred. One objection from *Kilakila O Haleakala*, a group formed to oppose the telescope, concerns "digging into [volcano goddess] Pele," because construction will require a deep excavation. Another concern is that the conservation area is becoming urbanized with more and more astronomical facilities. And some Haleakala buffs object to the 143-foot-tall telescope structure being raised in an important view plane at the summit.

The telescope's developers have made a number of attempts to mitigate any negative impacts construction of the telescope might have, setting up a Native Hawaiian Advisory Group to offer counsel. Unlike some others, who say no amount of mitigation will suffice, members of this group believe that the benefits of the telescope are worth working out a compromise.

Over the past few years, Native Hawaiians have been allowed to enter the observatory area, normally closed to the public, to pursue cultural practices at two traditional ahu (altars). The National Science Foundation (NSF) has committed to make available \$20 million over 10 years for an education program at the University of Hawai'i Maui College that will cultivate and reinforce the intersection between Hawaiian culture and knowledge with science, technology, engineering and math, thus tapping into ancient cultural knowledge and opening the world of science to more Hawaiian students. (The college recently began offering a four-year Engineering Technology B.A. degree which stresses the effective use of integrated electro-optical hardware and could eventually provide workers for the telescope.) And the NSF is already advertising for workers to conduct monitoring of endangered species that live at the summit and could be affected by the construction and the presence of the telescope facility.

The Hawai'i State Board of Land and Natural Resources approved a conservation district use permit for the telescope in December 2010. The project hopes to start construction in 2012.

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# MADE IN MAUI PRODUCTS LOCAL PEOPLE, LOCAL PRIDE & LOCAL ECONOMIC BENEFITS

Pamela Tumpap



Living in a small island community in the Pacific, one thing is eminently clear: “We are all in this together.” It is that spirit of “Aloha” and working in concert that permeates Maui’s manufacturing culture, creating diverse and high-quality value-added products for residents and visitors to enjoy.

Known for being “No Kai ‘Oī” (The Best!), Maui has a long history of innovation, entrepreneurship, and collaboration. The people here leverage available assets and new opportunities to create cherished products that are purchased time and time again.

Maui’s manufacturing industry is aided by a robust visitor industry that brings in \$3 billion dollars annually and delivers new and returning guests who want unique, authentic, Maui-made goods to enjoy and send as valued gifts. They certainly find just that in the “Made In Maui” label, a seal of local people, local pride.

Developed and trademarked by the Maui Chamber of Commerce and its related trade association, the Made In Maui label is an assurance to consumers that a product is of local Maui origin, with at least 51% of its value added on island. It represents diverse goods that feature the beauty and bounty of Maui, and our island manufacturers take tremendous pride in their creations.

They also recognize their role as ambassadors for the island and its people through their offerings, as you will see from the companies highlighted below.

## ALI’I KULA LAVENDER FARM

After running a garden business, Ali’i Chang was looking for a new crop for his land in Kula. He was given a lavender plant as a gift and discovered that lavender grew prolifically on his land in upcountry Maui.

As the story goes, Ali’i did not have the water to support a typical farm operation, so he chose the versatile lavender plant that needed very little water. It blossomed to create a scenic blue-violet mountainside landscape. He began to share the farm through tours, but did not have a lot of marketing money to promote them; however, he treasured Kapuna (elders) and brought them upcountry to relax, enjoy the farm, and experience his passion. They so appreciated their visit that they would tell their families about the experience and encourage others to come. Soon enough, the farm operation blossomed. He did not have money and equipment for manufacturing, so he partnered

with many smaller producers throughout Maui and across the state to manufacture merchandise with the estate’s lavender, including for aromatherapy, culinary, spa and bath products, and more.

In 2007, the company won the State of Hawai’i Home Based Business Champion of the Year from the Small Business Administration for empowering other businesses by establishing partnerships with many small and home-based firms to create new products from its 45 varieties of lavender, resulting in expanded revenues in manufacturing, tourism, and specialty retail. Today, the successful lavender farm receives approximately 30,000 people annually. Those guests can purchase lavender items at the farm gift shop, online, or in other Hawai’i retail stores.

## MAUI JELLY FACTORY

A family-owned business, Maui Jelly Factory, is located in Wailuku, the County government seat and the heart of Maui’s tropical fruit belt. The company prides itself on using only the finest ingredients and processes to ensure the highest quality and freshness of every product they offer, which includes tropical fruit jams and jellies, exotic condiments and relishes, and world-class candies. Customer satisfaction is paramount and they stand by all of their merchandise with a 100% guarantee.

Recognized as a leader in their industry, Maui Jelly Factory not only makes their own products, but also creates items offered under private label for various hotels, restaurants and other businesses throughout Maui. They produce 45 products under their label and 38 for others.

Known for delicious flavors and “goodness”, each product is a delight and contributes to making each meal even more special. Maui Jelly Factory’s products are available in stores throughout Hawai’i and on their website.

## TEDESCHI VINEYARDS

Maui’s sole commercial winery, Tedeschi Vineyards, has been growing grapes on the slopes of Haleakala and explain that the secret to their success lies in the rich volcanic soil of the region. This, along with patience and slow ripening, produces grapes that feature distinctive regional characteristics. In addition to being a successful winery, they are also a thriving member of Maui’s agricultural community and a company that believes in sustainability. The Tedeschi winery began in 1974 with the collaboration of Californian Emil Tedeschi, when Ulupalakua Ranch began growing grapes to remain true to the area’s agricultural heritage. While waiting for the grapes to mature, they decided to develop a sparkling wine made from Maui’s plentiful

pineapples. Only a small amount of this wine was produced, but the public’s positive response confirmed this wine should live on.

Three years later, Tedeschi Vineyards released a Maui Blanc pineapple wine from local fruit and continued to do so over the years through a successful partnership with Maui Pineapple Company. When Maui Pineapple Company closed and sold its production assets to Hali’imaile Pineapple Company in 2009, the winery helped save Maui’s fresh pineapple industry and still uses Maui Gold pineapples in their ever-popular wines today. In 1984, after years of labor and development, the first grape product, Maui Brut Sparkling, was released. Their line of wines has been greatly expanded to offer a varied selection, including sparkling, pineapple, grape, and a coveted raspberry dessert wine.

Tedeschi Vineyards also support the community by featuring the works of celebrated Maui artists on their wine labels and donating the raspberry byproducts to culinary students at University of Hawai’i Maui College for their use in producing a gourmet raspberry jam.

Renowned for their wines and picturesque location, the winery hosts more than 180,000 visitors a year and even had their prized Maui Brut served at the inauguration of President Ronald Reagan in 1981.

These companies showcase what is possible when working together and exemplify the excellence, originality, high-standards and community commitment found throughout Maui’s manufacturing industry.

Just as circles ripple farther out when a pebble is dropped in a pond, so does the work of Maui’s many producers. Their labor of love generates far reaching economic benefits for the entire community, from strengthening businesses and creating more jobs to increasing wealth and supporting other industries.

You can make a difference to the people and island of Maui, by remembering to Buy Maui First and supporting local manufacturers. When you do, everyone benefits.

# MAUI'S SMALL TOWNS: A CELEBRATION OF LOCAL IDENTITY

Sarah Ruppenthal



Baldwin Avenue  
MAKAWAO

When Denver, Colo. resident Michael Green makes his annual trip to Maui, his first stop is the Pa'ia Fishmarket on the island's North Shore. "My stomach starts growling on the plane... about midway across the Pacific Ocean," he jokes. But it's not just the tantalizing aroma of Cajun-spiced mahi mahi fish tacos or cold beer that lures him to the restaurant located within the tiny enclave of Pa'ia Town—it's something more than that. "It's the ambience of Pa'ia," Green explains. "There's something about the town that makes me feel like I'm exactly where I'm supposed to be."

For many, Maui's small towns—which include Pa'ia, Hana, Makawao, Wailuku and Lahaina—evoke an all-too familiar feeling of nostalgia. Visitors are smitten with the unique charm of the island's "Main Streets," while local residents cherish the enduring character and culture embedded within these close-knit communities. Take a trip to Pa'ia, Hana, Makawao, Wailuku or Lahaina, and you'll find a town that clings to tradition, breathes

history and stays true to its identity—while maintaining a competitive edge in an ever-evolving economic landscape.

These five destinations may differ geographically and otherwise, but they all have one thing in common: unmistakable small-town charm. And while they may be small, these towns have become larger than life, thanks in part to their rich histories and an intrinsically appealing "blink-and-you'll-miss-it" rural ambience.

These are the coveted attributes that attract legions of visitors—and their dollars—from around the globe.

Quaint and historic, these towns offer a rare opportunity to experience what it's really like to live on Maui, a diversion from the glitzier atmosphere of Hawai'i's tourist-filled hotels and resorts. There are no cookie-cutter shopping malls here; instead, you will find a colorful mix of shops that draw a steady flow of day-trippers and bargain hunters eager to find the perfect gift or souvenir—and it's likely they will.

"The local Main Street Program has encouraged the tourism industry to perpetuate an appreciation of our small towns as great treasures...on any given day, one can discover and enjoy the heritage and environmental attractions along with exclusive shopping and dining experiences that differentiate each community from another."

Pa'ia, Hana, Makawao, Wailuku and Lahaina all feature a consortium of retail shops, boutiques and restaurants ("big box" stores are conspicuously absent), as well as an eclectic assortment of art galleries, Internet cafes, yoga studios and tattoo parlors. These small towns also boast a variety of community events steeped in culture and rooted in tradition, such as the Makawao 4th of July Rodeo and Parade, International Festival of Canoes in Lahaina Town, East Maui Taro Festival in Hana, The Maui County Fair in Wailuku and the Aloha Classic Professional Windsurfing contest in Pa'ia. And that's just the tip of the iceberg, as they say. On any given day, there are an untold number of unique sites, attractions and events to experience in each of these small towns.

Yet, perhaps what is most remarkable is that these increasingly popular tourist destinations have managed to retain their unique character and "sense of place" over the years.

When it comes to progress and planning for the future, Maui County, like so many other places, is in a state of flux. However, there is a committed effort to preserve the island's historic towns, their unique features and—most importantly—fundamental natures.



Front Street shops  
LAHAINA

This is the guiding principle of the Wailuku Main Street Association/Tri-Isle Main Street Resource Center, a nonprofit organization tasked with promoting and maintaining the civic, social, economic, environmental and cultural welfare of small towns across Maui County. According to the group, "The local Main Street Program has encouraged the tourism industry to perpetuate an appreciation of our small towns as great treasures... on any given day, one can discover and enjoy the heritage and environmental attractions along with exclusive shopping and dining experiences that differentiate each community from another."

Pa'ia Merchants Association President Dean Wong echoes this sentiment. "Mark Twain once said, 'Human nature cannot be studied in cities except at a disadvantage—a village is the place.' Pa'ia is still very much a village town that brings out the best in human nature, here people work, live and function as a community." Wong recognizes that in an ever-changing and modernizing economic time where everything seems generic. "Our surfing, sugarcane, fishing village stays determined to be its own reflection of Maui. Our boutiques, cafés and restaurants are not like other places, because they reflect our town's values and our love for Hawai'i."

#### For more information:

Jocelyn Abreu Perreira  
Executive Director  
Tri-Isle Main Street Program  
(808) 244-3888  
[www.mauitowns.org](http://www.mauitowns.org)

# MAUI IS A PLACE FOR ARTISTS

Paul Janes-Brown



Maui is a beauty magnet so it follows that artists, who create and reflect beauty, would be attracted to Maui. However, the number of artists here is impressive. For a place with an estimated population of 145,000 (US Census 2010), there are more than 2,000 artists and designers living on Maui.

## OPEN STUDIOS

While Lahaina is the commercial center of art on Maui, in every town on the island and in places where there are no towns visitors will find artists working in every medium. In 2012, for the second year, every weekend in February, artists throughout Maui will open their studios to the public for visits. This project is the only such event like it in the state and Carolyn Quan, who organized and manages it, modeled it after successful similar events in California.

“After recognizing that Hawai‘i has no such event to promote and support its abundance of talented artists, we began putting plans in place to produce one here, where so many gifted and talented artists reside, visit, create and find inspirations for their art,” said Quan.

The events are organized geographically so visitors will easily be able to visit as many of the studios as they like. In order to plan and organize one’s visits, a full schedule, including maps and information about and examples of work by every artist is at [www.MauiOpenStudios.com](http://www.MauiOpenStudios.com).

Artists are encouraged to put on demonstrations, discuss and sell their work, create unique exhibition spaces and serve refreshments. Over \$100,000 worth of artwork was sold during last year’s inaugural event and there were 6,000 individual studio visits.

In virtually every town there is an amazing abundance of commercial galleries. Maui also has two visual art gems housed in the Maui Arts & Cultural Center’s Schaefer International Gallery in Kahului and the Hui No’eau Visual Arts Center in Makawao.

## SCHAEFER PORTRAIT CHALLENGE

Every three years, in January, since 2003, the Maui Arts & Cultural Center hosts one of the most important and lucrative art competitions in the U.S. The Schaefer Portrait Challenge, with its \$15,000 first prize and \$5,000 Marian Freeman People’s Choice Award, is unique in the entire country.

The project began in 2000 when Australian Ron Lowe, a old friend of George Allan, one of Maui’s most prolific and accomplished impressionist painters, sent a videotape and a book about the Archibald Prize, an annual portrait competition hosted by the Art Gallery of New South Wales, Australia since 1921.

Allan, taken by what he saw, thought if there were such a competition in Hawai‘i, it would give artists, “a kick in the pants,” inspiring them to stretch themselves because “A tree is tree, but to capture a person, it’s a whole other thing.”

Allan and his wife, Janet, set out to find the resources to make the idea a reality. Gage Schubert, a long-time visitor and friend from California, was so impressed and excited, he immediately said he and his late wife Lettie wanted to help make a portrait show a reality here.

Carolyn Schaefer Gray, a long-standing Maui philanthropist and arts supporter, had warm memories of her late husband Bud’s experience having his portrait painted. He actually developed a deeper awareness and appreciation of himself, the artist and the painting as a result of having his portrait done. She had a similar experience when her portrait was painted a few years later.

“Everything was right about it. There weren’t a whole lot of artists that I was aware of in our Hawaiian islands doing this kind of thing, so I thought this was a great way to challenge our artists to move to another level,” Schaefer Gray said. “It has a lot to do with what we have looked to encourage, and that’s education. Continuing to help people delve into themselves and find what’s really there; to stretch, to explore.

The Schaefer Portrait Challenge took place in 2003 and every three years since. This statewide juried exhibition features artists whose work best captures the extraordinary people of Hawai‘i as portrait subjects in any medium; self-portraits are also accepted.

## SCHAEFER INTERNATIONAL GALLERY

The Maui Arts & Cultural Center’s Schaefer International Gallery, designed by John M. Hara FAIA, at 4,000 sq. ft. with 25-foot ceilings, is one of largest museum quality galleries in the state. With solid wood floors, climate control, state of the art lighting

and a movable inner wall system, virtually any artist’s exhibition needs can be accommodated.

The Gallery produces six major shows annually and hosts the largest juried show of Maui artists, Art Maui. When the show opens in March it will be the 34th annual Art Maui. Each year, 500 to 600 works are submitted by about 350 to 375 artists for jury selection. Of these, 85 to 150 are accepted.

In 1967, Hawai‘i was the first state in the nation to adopt a percent for art. This law states that one percent of the construction budget of schools and state buildings be set aside either for the purchase or commissioning of works of art. Each year the State Commission on Culture and the Arts selects several works from Art Maui to add to the State’s great art collection.

## THE HUI NO’EAU VISUAL ARTS CENTER

The Hui No’eau is housed in the family home of one of Maui’s most prominent families, the Baldwins. Designed in 1917 by C.W. Dickey, the Mediterranean style mansion houses two galleries as well as meeting areas and administrative offices. On the 25 acre site, one can find the ruins of a sugar mill, as well as studios for jewelry, woodworking, ceramics, printmaking and art education classrooms for children, teens and adults.

The Hui, as it is known, holds several exhibits annually, including its juried members’ exhibit as well as its coveted solo show. Its annual Art Affair at the end of February is one of the most popular benefits on the island.

Maui has been called no ka ‘oi (the best) not only by Mauians, but also by those who have come here from elsewhere. Painter Pamela Neswald, a Malibu transplant, said it best: “The Beautiful Isle calls artists from around the world to gather here and create. It heals, nurtures, cradles, incubates, fertilizes, energizes the artist in humans. It seems the beauty surrounding us in-tunes us with appreciation for the beautiful in our own work, in the work of others and in humanity and the natural world. You would think us glutted, but we become like food connoisseurs, only more sensitive to the piercing beauty and joy of living. I myself feel like a plant, luxuriating in and turning toward the sun.”

# MAUI LOVES AND SUPPORTS THE PERFORMING ARTS

Paul Janes-Brown



The performing arts on Maui are represented by four organizations: the Maui Arts & Cultural Center (MACC), Maui OnStage(MOS), the Maui Academy of Performing Arts (MAPA) and the newest producing organization, ProArts.

In addition to these not-for-profit groups, there is a large and thriving commercial sector as well, with long running shows such as Warren & Annabelle's, 'Ulalena, Kupaeha, several well-known luau performances, and the latest entry, Cirque Polynesia.

In the 2010-2011 season, Maui's stages were alive with performances of every kind. These not-for-profit groups hosted 173,000 people, in a wide range of productions from the cutting edge dance of Azure Blue to Hal Holbrook in Mark Twain Tonight. The total economic impact from the audiences for these groups was approximately \$6.7 million. That does not take into account the operating budgets of the organizations themselves, which include the jobs created and sustained by them, as well as the goods and services they purchase throughout the year.

## MAUI ONSTAGE

The Maui Arts & Cultural Center is the 900-pound gorilla in the mix and there is a separate article devoted entirely to the MACC.

The oldest among these groups is Maui OnStage. They hold the distinction of being among the oldest continuously producing community theater groups in the entire U.S. Founded in 1930, the organization performed at many venues over the years, but when its building, at the old Maui Fair Grounds was destroyed by fire in 1984, the theater found a permanent home in the historic Iao Theater under a long-term lease from the County of Maui.

## IAO THEATER

Opening its doors in 1928, the Iao is the oldest theater in the state. Listed on both the State and National Register of Historic Places, its storied past includes live performances by Bob Hope, Frank Sinatra, Mickey Rooney and Donald O'Connor as well as the Hawai'i premiere of "From Here to Eternity" in 1953. However, the real history of the theater began in 1984, with that first community theater production of Gilbert & Sullivan's "H.M.S. Pinafore." Since then, for nearly 30 years, MOS has produced a

full season of Broadway revivals and some challenging dramas. The theater is also available for other groups as an affordable, community gathering place. Events as diverse as political candidate debates to live comedy and variety shows have found a welcoming venue at the historic Iao Theater.

Under the inspired leadership of Alexis and Steven Dascoulias, MOS has produced several successful seasons, both from an artistic as well as financial perspective. Their dream is to have the Iao Theater receive a complete, historically faithful rehabilitation in the near future.

## MAUI ACADEMY OF PERFORMING ARTS

MAPA is a performing arts training center primarily focused around after school and vacation programs in dance and drama for children and teens. They have been major theatrical producers as well. Their production of "Jesus Christ Superstar" with international Hawaiian recording artist Keali'i Reichel as Jesus, is the stuff of legends and their co-production of the Yeston/Kopit "Phantom" gives them the award for the best locally produced, Broadway-quality show in Maui history. Their production of "Wit," the thought-provoking play about a literature professor afflicted with bone cancer, is still the best non-musical ever done on the Valley Isle. All of these productions were under the able direction of David Johnston, MAPA's Executive Artistic Director.

## STEPPINGSTONE PLAYHOUSE

In 2005, through an unprecedented cooperative agreement with the former owners of Queen Ka'ahumanu Mall, General Growth Company, MAPA renovated a former brewpub into a 160-seat theater and mounted a season. Since then they have produced summer youth productions and difficult works such as "Under Milk Wood" and "Grapes of Wrath."

Founded in 1974 as Maui Youth Theater, the organization became MAPA in 1990, "...to reflect the growth and expanded direction of the organization." MAPA has developed several dancers who have gone on to careers in dance. Recently, MAPA alum, Hiroki Ichinose appeared as a contestant on the very popular reality show "So You Think You Can Dance." Several members of the excellent ballet training program have gone on to work with major companies on the mainland.

It's remarkable to have one person from a place with this population of 145,000 go and work with major national companies, but to have several is unbelievable. It is a tribute to the quality of the staff MAPA attracts and to the dedication of the dancers, who, in the words of the late great Martha Graham, "have a need to dance."

## PROARTS

The newest kid on the block is ProArts. Founded in 2006 by Jonathan Lehman and Doug Kendrick, ProArts produced an artistically successful dinner theater production of "Dames at Sea." With their appetites whetted, the two decided to launch a more ambitious effort in 2008 and mounted a well-received production of the Broadway hit, "Urinetown, the Musical."

In 2009, they put on a full season of productions, including marvelous "fractured fairy tales" of "Sleeping Beauty" and "Cinderella." Like their cartoon counterparts, these one-hour plays have something in them for both children and adults.

## PROARTS PLAYHOUSE

Having a desire to have their own space to manage, Lehman and Kendrick found a space in Kihei and with a minimal amount of renovation, opened ProArts Playhouse in Azeka Makai Shopping Center in 2010. This 99 seat "black-box" theater is reminiscent of the Off-Off Broadway theaters in New York. Recently, after its great production of "The Fantasticks," an audience member was heard to say, "It's just as good as the Sullivan Street Playhouse production."

In the 2011 season, after the company produced an acclaimed "Driving Miss Daisy," Kendrick left to pursue other interests and Lehman continues to mount great work. ProArts is the only Maui company that pays everyone a stipend including all of the actors. They have carved a niche for themselves in South Maui and demand continues to grow for this outstanding producing organization.

Maui offers a wide variety of performing arts from voluntary amateur productions by MOS to professional quality shows by ProArts. The term "amateur" is sometimes misunderstood -- it has nothing to do with quality, although it has taken on that connotation in some quarters. Rather, it means those who do it for love rather than money. On any given night, one may have a choice between a big revival of a Broadway hit, such as MOS's recent, wildly successful production of "Chicago," to ProArts' equally successful production of "Greater Tuna." People on Maui know good performances and they love and support them.

## For more information:

Alexis Dascoulias  
(808) 844-8760

Jonathan Lehman  
(808) 463-6550

# MAUI: THE ISLAND IS FULL OF MUSIC

Paul Janes-Brown



Hawai'i is synonymous with music. Maui County is home to some of the world's best exponents of that art form. Whether it be traditional or modern Hawaiian music, jazz and blues, orchestra and opera, you can find it all at a variety of venues including the Maui Arts and Cultural Center (MACC), resorts, clubs, hotels, churches, and restaurants on Maui.

Maui has a host of multi-Grammy and Na Hoku Hano Hano Award winning slack key artists. Most prominently among them is George Kahumoku, Jr. and Maui born Jeff Peterson. Kahumoku has hosted the Slack Key masters show since 2003. This remarkable showcase of the best slack key artists in the world has been the incubator for three Grammy Award winning albums.

When it comes to the steel guitar, Living Treasure of Hawaiian Music, Henry Allen has been creating the sound most associated with our islands for 58 years. Since the '70s the Hilo native has

called Maui his home. For the last three years he has presented The Hawaiian Steel Guitar Festival, a celebration and educational workshop that attracts the world's best steel guitarists and students who want to learn from the best.

Falsetto is a treasured vocal technique and Maui is home to two of Hawai'i's leading falsetto artists, award winners Uncle Richard Ho'opi'i and kumu hula Uluwehi Guerrero. His annual festival on Thanksgiving weekend on the grounds of the historic Bailey House in Wailuku is one of the most authentic celebrations on the island.

Maui is host to many other musical genres as well and attracts a host of famous musicians who call this island home. They include Rock and Roll Hall of Famers such as Willie Nelson, Alice Cooper, Mick Fleetwood and Pat Simmons of the Doobie Brothers. Also former Doobie Brother Michael McDonald and Carlos Santana have vacation homes here. Until his death in 2001, George Harrison of the Beatles lived on his estate in Hana with his wife, Olivia, who still resides there.

These musicians regularly "sit-in" with other local musicians in clubs throughout the island. Maui has several world class recording studios where top musicians can produce their next platinum selling recordings. This infrastructure and mentoring helps emerging groups such as The Throwdowns, Moth XP, Kanikoa, and the Vince Esquire Band make names for themselves here and on the mainland. The new Institute for Hawaiian Music at UH Maui College offers young talent the opportunity to hone their skills and become professionals in the Hawaiian music genre.

Here is just a sampling of the diverse opportunities for music buffs on Maui:

## KI HO'ALU SLACK KEY FESTIVAL

Hawaiian Slack Key Guitar (ki ho'alu) is truly one of the greatest acoustic guitar traditions in the world. Ki ho'alu means literally "loosen the key." Each tuning produces a lingering sound behind the melody and has characteristic resonance and fingering. The slack key tradition was given an important boost during the reign of King David Kalakaua, who was responsible for the Hawaiian cultural resurgence of the 1880s and 1890s. He supported the preservation of ancient music, while encouraging the addition of imported instruments like the 'ukulele and guitar. Many Hawaiian songs and slack key guitar pieces reflect themes like stories of the past and present and people's lives. But it is the tropical surroundings of Hawai'i, with its oceans, volcanoes and mountains, waterfalls, forest, plants and animals, that provide the deepest source of inspiration for Hawaiian music. The festival takes place at the Maui Arts & Cultural Center (MACC) every June.

## THE MAUI POPS

The Maui Pops Orchestra performs popular favorites from composers such as Richard Rogers to Beethoven and Mozart. In their 2011 season, the Maui Pops produced Donizetti's The Elixir of Love with the Pocket Opera of San Francisco and the Olinda Chorale to much acclaim.

## MAUI CLASSICAL MUSIC FESTIVAL

For thirty years, usually in the spring, pianist Catherine Collier and violist Yizhak Schotten have been producing the Maui Classical

Music Festival, a week-long celebration of great chamber music, emphasizing trios, quartets and quintets. Collier and Schotten started the series at the behest of one of Maui's most philanthropic and prominent families, Mr. and Mrs. Colin Cameron.

The festival travels to all parts of the island during its week-long residency, including remote Hana which is the highlight of the tour for the visiting artists.

## EBB & FLOW ARTS

Since 1999, Maui has been one of the most vibrant places in the world for new music thanks to Robert Pollock and his brainchild Ebb & Flow Arts. They have presented 67 concerts, 244 works by 114 composers, 34 world premieres, 67 Hawai'i premieres and 298 school workshops. Pollock has built a large (most of the concerts are full), highly sophisticated audience through exposure to the relationship between the classics, modern and contemporary composers.

These groundbreaking, only-on-Maui experiences are made possible by the Maui County Office of Economic Development, the State Foundation on Culture and the Arts and the National Endowment for the Arts.

## MAUI CHORAL ARTS ASSOCIATION & MAUI SUMMER MASTERWORKS

Music on Maui is not just instrumental; the Maui Choral Arts Association, led by Celia Canty, performs throughout the year and there is a Summer Choral Masterworks festival. Now, in its second year, this festival focuses on the great classical choral repertoire such as the Mozart Requiem and Bach's Magnificat. The director of the festival, Bob Wills, has plans to bring choirs from throughout the world to Maui to create a world-class choral festival.

Event listings for these and many more musical experiences can be found in the Maui News, Maui Time Weekly, Maui Weekly and MauiTVNews.com. No matter what form or cultural tradition the music may come from, it's available here on Maui—this gem in the middle of the Pacific where all cultures are respected and celebrated.

## For more information:

[www.slackkeyfestival.com](http://www.slackkeyfestival.com)  
[www.macc.org](http://www.macc.org)

# MAUI'S UNIQUE ISLAND EXPERIENCE

Nancy Kanyuk



Conde Nast Traveler has described Maui as “Best Island in the World” seventeen times. Towering 30-foot waves carved by fearless beach boys, snorkeling in azure waters teeming with fish, turtles and other marine life and the opportunity to see humpback whales heave themselves almost completely out of water make it one of the premier tourist destinations in the world.

But there is another dimension to Maui: It is a place that offers business visitors 21st century amenities, a wide range of convention facilities and access to shopping, world-class cuisine, accommodations and transportation. These are worthy of anything a big city has to offer but in a rural setting. It is a study in contrasts. Chickens pecking by the side of the road coexist with state-of-the-art wind and solar energy technologies. And hotels, from modest to luxurious, offer conference planners a unique island experience.

Maui's more leisurely pace also makes it an excellent convention destination. As Terry Vencl, executive director of the Maui Visitors Bureau describes it, “When people come to our islands they're

leaving the rat race behind even if they're coming to work. You can see it on a plane; people breathe out, let their shoulders relax. And once they've unwound they become more receptive because of the environment they're in.”

Conference capabilities range from small groups into the thousands. At some of the larger facilities, ballroom space is as large 20,000 square feet with seating for as many as six hundred. Smaller hotels offer more modest accommodations of a thousand square feet or more. These hotels are scattered across Maui County, on the islands of Maui, Moloka'i, and Lana'i, and size has determined their character as well as what is available in terms of conference capabilities. Maui offers the largest number

of accommodations as well as the largest facilities, Lana'i has two luxury hotels offering conference space and Moloka'i caters to smaller groups.

It's no surprise that the biggest share of Maui's convention business is incentive-based. Corporations reward their higher performing employees with the opportunity to learn in an idyllic setting thus creating a workforce more receptive to their message—a win-win situation for both company and employee.

Many corporations return, sending employees to the island every three to five years. Employers and employees speak of the spirit of aloha shown by the people—one of the hallmarks of the Maui experience—as well as the many opportunities to enjoy sun, sand and surf.

Ocean activities like paddle boarding, surfing, windsurfing, kayaking, snorkeling and diving are some of the best in the world. But Maui also offers glimpses of an island steeped in an ancient culture and history that still manages to coexist within the context of a modern technological society.

Leisure activities can be packaged with visits to businesses like windmill farms and biodiesel facilities, 21st century technologies that emphasize sustainability. In keeping with the trend of social and corporate responsibility there are a wide variety of volunteer opportunities. They range from working side-by-side with professional archeologists as they uncover one of the island's most sacred places, to restoring traditional fishponds on Maui or Moloka'i or removing invasive vegetation in protected nature preserves containing some of the most endangered birds in the world.

Hiking and viewing opportunities abound from atop Maui's highest point, Haleakala, the world's largest dormant volcano, to shoreline where a traditional land settlement is being restored. There is the Road to Hana, resplendent with waterfalls and featuring six hundred curves, 54 one-lane bridges and world-class beaches.

For the history buff, nothing can compare to Iao Valley. Burial place to some of Maui's highest ali'i (chiefs) it also saw the island's fiercest battle for control of the island. It came to be known as Kepaniwai—or damming of the waters—for the bodies of Hawaiian warriors that blocked the stream. On the island of Moloka'i, a leper colony established in 1866 at Kalaupapa, serves as a haunting reminder of 19th century prejudices and medical practice.

History takes on a more beautiful face with hula. Prior to contact with the West, it was much more than entertainment. It was sacred, a genealogy and prayer as much as it was a celebration. Today, hula as a sacred dance has been revived by Native Hawaiians who are proud to share it with others.

Another ancient Hawaiian concept and practice, known as ahupua'a, has a decidedly modern look. A traditional land division stretching from mountain to sea as an integrated ecosystem, it incorporated all the elements needed to support its population, from fish to crops. This all changed with the arrival of foreigners who planted much of the island in sugar cane.

Today, chefs and farmers are working together to create their own version of an integrated culinary ecosystem. Known as the “farm-to-table movement”, it promotes buying locally and using homegrown fruit, vegetables and meat produced nearby.

This new generation of farmers is growing world-class crops like Maui Gold pineapples and Maui onions as well as lavender, lettuce, cabbage, strawberries and even coffee and cacao. And they are showing the rest of the world the fruits of their labor by offering farm tours to showcase their products.

Much of the impetus for the farm to table movement came from a hui (group) of young chefs more than twenty years ago. Tired of using picked-green or frozen ingredients they came up with the idea of using fresh produce. They combined it with a fusion of the cuisines of the island: Chinese, Japanese, Portuguese, Filipino, Korean, and Puerto Rican, among others. The result: Hawai'i Regional Cuisine, a celebration of fresh, local, sustainable and multicultural, and these days, available throughout the islands.

Traditional and modern, rural and urban, Maui Nui offers convention planners and business travelers the best of both worlds, 21st century amenities amidst the charm of a place proud of its rural past.

## CONVENTION SERVICE COMPANIES

Maui Visitors Bureau  
(808) 244-3530 and [www.gohawaii.com/maui](http://www.gohawaii.com/maui)

Aloha Holidays (808) 943-0999  
Kathy Clarke Hawai'i (808) 885-8060

Chrysalis Events Hawai'i (877) 989-4727  
MC & A Inc. (877) 589-5500

Desilva Management Company (808) 357-1825  
The Wright Company, LLC (808) 572-1160

Island Partners (808) 270-2405  
Weil & Associates (808) 955-1400

# HALEAKALA NATIONAL PARK OFFERS BENEFITS OF MANY KINDS

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It pays to have a national park in your backyard. Local park officials say figures from a report on economic benefits to local communities from national park visitation and payroll showed that in 2008, the 1.2 million visitors to Haleakala National Park spent \$78 million in Maui County on activities associated with their park visit—car rental, gas, food, etc.—and that 1,569 jobs were supported by park-related visitor spending, resulting in \$48 million in economic activity through spending by those wage earners.

In general, research shows national parks use just 1/13 of 1% of the federal budget. For every one dollar invested, national parks generate at least four dollars of economic value for the American people, according to the National Parks Conservation Association.

But ask most Maui residents about the value of their national park, and you will get a non-economic answer. For Native Hawaiians, the summit of Haleakala is in wao akua, the realm of the gods, and the mountain is a sacred site. For environmentalists, the endangered plants and animals at the

summit and in the pristine Kipahulu Valley are unique and irreplaceable. For lovers of the outdoors, the stunning scenery and opportunities for hiking and camping are unmatched. And clearly, visitors are willing to spend money to visit Haleakala precisely because they, like the locals, value the beauty and the often-spiritual experience they find in the park.

## A HISTORY OF ATTRACTING ATTENTION

The potential of Maui's spectacular 10,023-foot volcanic summit as a tourist attraction was recognized long before it became a

national park. In the late 1800s and early 1900s, only the hardiest made it to the summit. Even after the automobile became available, there was no road to the top, requiring visitors to ride horseback over a rough trail. Once at the summit, their choice was to camp in flea-ridden caves or admire the scenery briefly and turn around to make their way back down to civilization. In 1894, a rough stone cabin was erected on the Crater rim with community donations, and for several decades the Maui Chamber of Commerce and other Haleakala boosters struggled to maintain the building. The chamber was certain that the summit and its Crater were ripe for tourism, if only they could find a way to get people up there. The chamber also lobbied for national park status, which eventually came to pass in 1916. Haleakala was at first part of the Hawai'i National Park, whose headquarters was at Kilauea on Hawai'i Island.

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Everything changed in 1936, when the road to the summit was completed. Now visitors could drive to the summit in relatively little time and linger to enjoy the view. Around that same time, Depression-era Civilian Conservation Corps workers were completing wilderness cabins within the Crater and trails to reach them.

The Kipahulu area, on the eastern slopes of the mountain, was added in pieces, beginning in the 1960s, extending the park's reach to the shoreline and protecting valuable native forests as well as a famous string of pools in Oheo Gulch.

In 1961, the park separated from Hawai'i Volcanoes National Park, becoming Haleakala National Park. Today it is beloved, from the dramatic water-carved "Crater" at its peak to the lush greenery at its Kipahulu shore. For visitors, it is one of the top sites to see; in the past five years, 58 percent of Maui visitors went to Haleakala National Park. Visitor counts do fluctuate in reaction to the greater economic picture, but even in 2009 there were still over 1 million visitors. Unlike some parks on the U.S. mainland that see dramatic highs and lows in visitor counts because of winter closure, Haleakala park visitation is consistent year-round.

## VISITORS BRING DOLLARS

Of those who visit the summit, about 70 percent come for sunrise, half of whom arrive on a tour bus. Nearly 30 percent of all visitors participate in a commercial tour or an activity such as horse riding or stargazing. Thirty-three businesses are permitted to offer commercial activities or tours, and 12 of these generate 80 percent to 100 percent of their total revenue within the park.

The park itself earns about \$2.5 million from entry fees, a bargain at \$10 per car. About 73 percent of that comes back to the park, with the remainder paying for administrative overhead and supporting other national parks that don't charge fees (such as the Pearl Harbor Memorial). The park has 91 employees, whose spending circulates almost \$7 million through the community.

Clearly, the economic contribution of Haleakala National Park to Maui County is significant, but the park's popularity is not without cost. While visitors to Kipahulu bring greatly needed revenue to the remote communities on that part of the island, their cars also clog the narrow highway, and some local residents complain that having a national park there is like having an 800-pound gorilla for a neighbor. At the summit, parking lots overflow at sunrise, and daily horseback tours break down trail edges and track in the seeds of invasive species.

Park employees and volunteer groups such as the Friends of Haleakala National Park and the Sierra Club work to mitigate these problems. When part of the highway to the summit needed repair, park officials made sure that the road's historic contours were maintained, rather than automatically being upgraded to federal highway standards. And trail experts recently did an assessment so it will be possible to track how much damage horse tours are doing in order to charge appropriate permit fees to the tour companies. Protecting the park from being "loved to death" is a big job, but one that its admirers believe is worth the effort.

## For more information:

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