



Keeping the Spirit of Kaloko-Honokōhau Alive

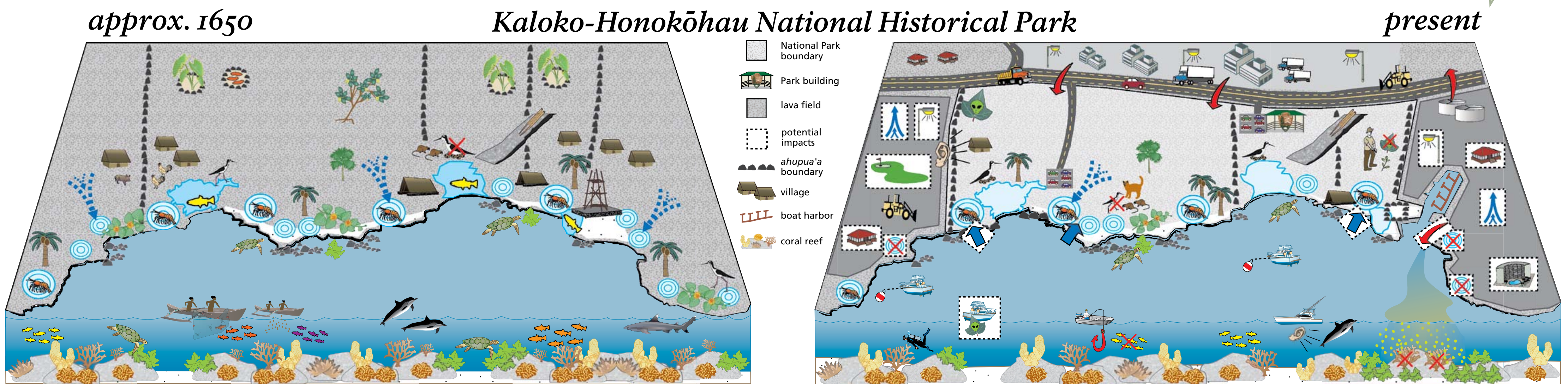
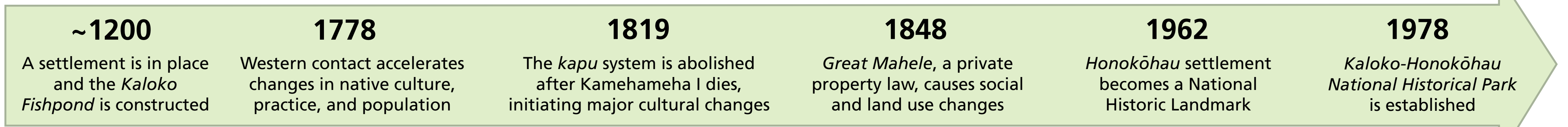


Kaloko kuapā, Kaloko Fishpond wall

Nā wai ola o Kane (life-giving waters of the god, Kane) provides the life essence in this dry district of West Hawai'i Island. Native Hawaiian conservation values protect the use of the land, sky, and sea by laying out specific guidelines for interactions between humans and nature. *Kaloko-Honokōhau National Historical Park* contains visible reminders, such as *heiau* (temples), *loko i'a* (fishponds), and *ki'i pohaku* (petroglyphs) that speak of the spirit of this place. Today, changes of population, resource use, and development alter the environment by compromising groundwater flow, marine life, and native species. The current challenge for this fragile national park is to keep the spirit alive by preserving these unique cultural and natural resources in the face of a rapidly developing landscape.



'Ilima, a native plant for medicinal use



Cultural and Natural Resources

- villages and sacred sites such as *heiau* (temples) were built along the coast
- a large stone slide was built for *hōlua*, sledding sport of the *ali'i* (chiefs)
- early Polynesians brought many plants and animals for their use
- a few harmful species, such as rats, arrived unseen with the Polynesians
- native plants were maintained for medicinal and ceremonial use
- taro and sweet potato were cultivated in planters on the lava fields
- groundwater recharged coastal pools and wetlands with fresh water
- 'ōpae 'ula (red shrimp), used for fish bait, lived in coastal brackish pools
- many resident and migratory birds used the coastal wetlands
- fish were trapped and raised in *loko* (ponds) for the *ali'i* (chiefs)
- feeding fish by canoe, then netting, maintained the *ko'a* (fishing grounds)
- abundant and diverse marine life communities existed along the reefs

Cultural and Natural Resources

- historic and sacred sites remain culturally significant and relevant today
- invasive plants are removed and native plants are restored by park staff
- endangered ae'o (Hawaiian stilt) and other birds nest in park wetlands
- fed by groundwater, brackish pools still support unique and rare species

Threats and Human Impacts

- dense development and heavy traffic cause light, air, and noise pollution
- future urban developments will threaten groundwater resources
- wells extract groundwater, leading to salt water intrusion into coastal pools
- excess nutrient runoff stimulates algae blooms, which can kill coral
- overfishing, increased boat traffic, and underwater noise affect marine life
- invasive marine species transported by boats can damage native reef species

Threats and Human Impacts

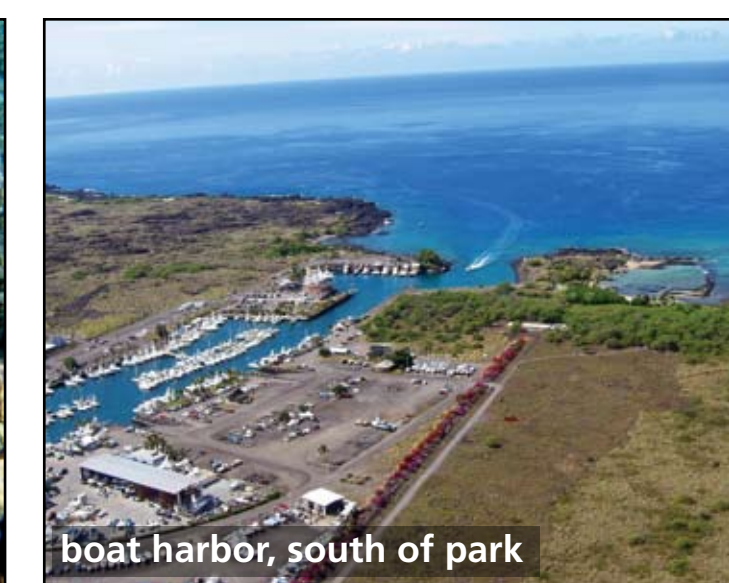
- introduced cats, rats, and mongoose threaten native bird populations



unique red shrimp in brackish pools



honu, green sea turtle



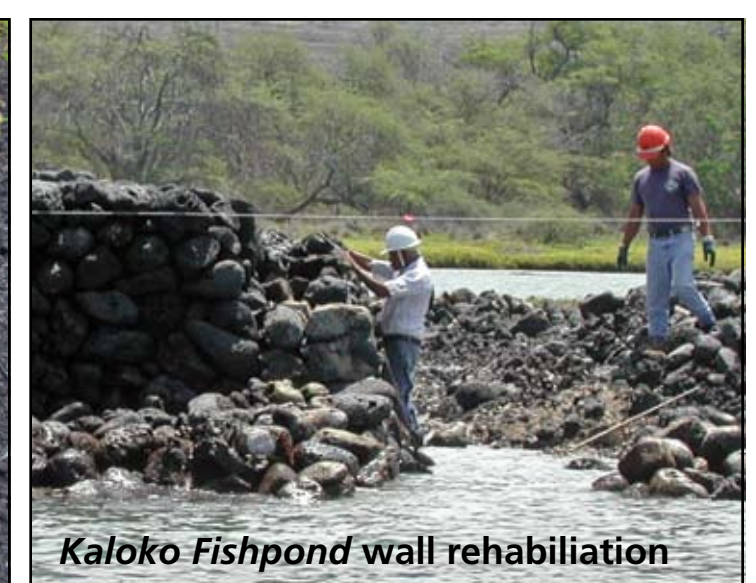
boat harbor, south of park



new development, north of park



loulu, a native palm replanted



Kaloko Fishpond wall rehabilitation

Cultural and Natural Resources

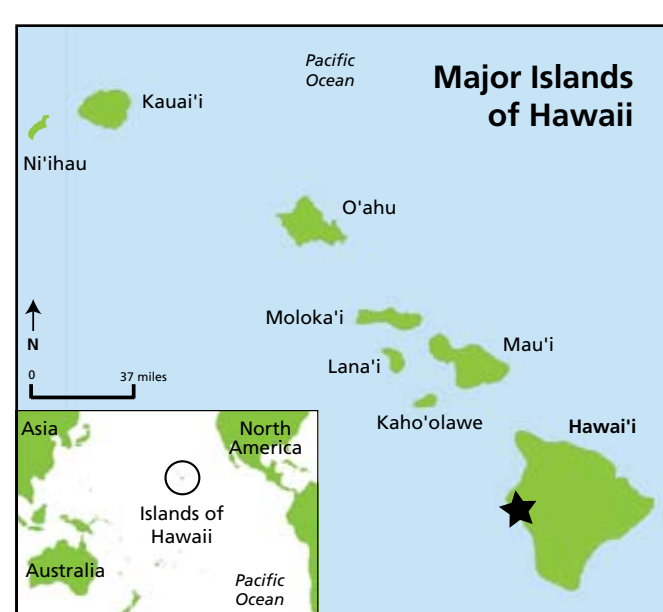
- pools and wetlands fed by groundwater
- unique and culturally significant native plants
- migratory and resident wetland birds
- coast with high coral cover and fish diversity

Threats and Human Impacts

- proposed developments threaten groundwater
- invasive plants outcompeting native plants
- introduced mammals reducing bird populations
- unregulated fishing reducing fish populations

Management Initiatives

- limit groundwater withdrawal and pollutant inputs
- remove invasives and restore native plants
- reduce populations of small introduced mammals
- collaborate with state on marine resource management

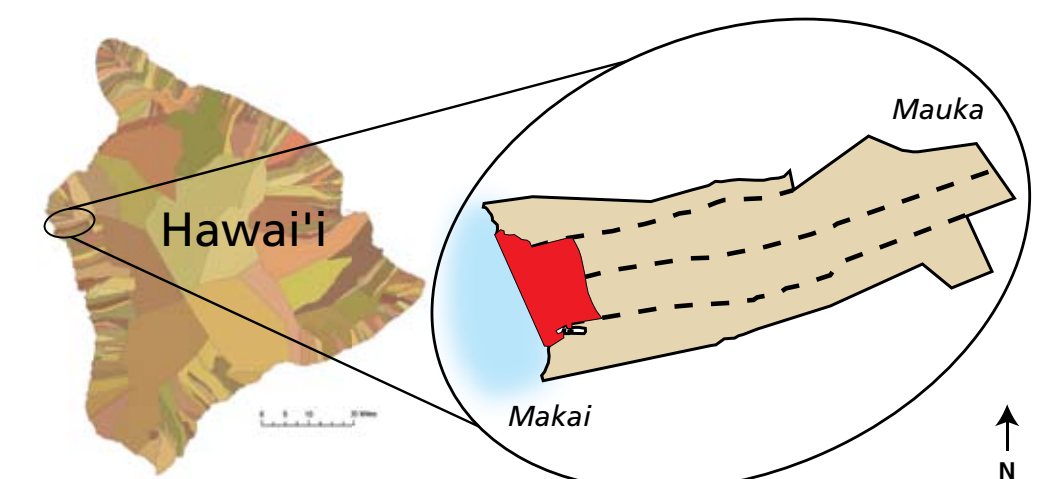


Kaloko-Honokōhau National Historical Park (star) on the island of Hawai'i.

KALOKO-HONOKŌHAU NATIONAL HISTORICAL PARK www.nps.gov/kaho

PACIFIC ISLAND NETWORK INVENTORY & MONITORING PROGRAM
National Park Service
<http://science.nature.nps.gov/im/units/pacn/>

INTEGRATION & APPLICATION NETWORK (IAN)
University of Maryland Center for Environmental Science
www.ian.umces.edu



Ahupua'a land division map (left) with Hualalai watershed (circled) and park (red).