

Ko'olau Loa, or "Long Ko'olau" mentioned above; and on Maui, similarly, there are lands known as Hamakua Poko and Hamakua Loa.

AHUPUA'A

The *moku-o-loko*, or *'okana*, were subdivided into *ahupua'a*, the chief political subdivision, for the purpose of taxation, and each of these sections was subject to a lower chief who was known as the *ali'i 'ai ahupua'a* or "chief who eats the *ahupua'a*." The term *ahupua'a* arose out of the fact that the seaward boundary of each such district was marked by an altar (*ahu*) on which a sculptured wooden head of a pig (*pua'a*) was placed at the time of the collecting of harvest offerings for the rain god and tribute for his earthly representative, the *mo'i*, during the *Makahiki* festival. The title to an *ahupua'a* was not hereditary; these subdivisions were allocated and reallocated to loyal supporters by the chief of the *moku* at the time of his accession. Proprietorship of an *ahupua'a* gave the right to collect taxes from that area. Actually, from the point of view of the *maka'ainana* on the land, the system was one of share cropping rather than taxation, and this sharing between chief and tenant was comprehensive and reciprocal in benefits. It also assured subsistence shares in food, fish, firewood, house timbers, thatch, and the like, to the lesser landholder—the planter.

With the exception of the stone altars erected for tax purposes near the seaward ends of the *ahupua'a* boundaries, there were no artificial demarcations of the limits of the larger land divisions. Topographical and other natural features—ridges, outcropping rocks, a stream channel, sometimes a tree—would give the lines and angles of defined areas. There was no conventional emblem of title in Hawaii comparable to the erect stones marking angles of individual holdings in Tahiti. Only in the case of patches of cultivated land were boundaries artificial, and here it was not a matter of convention, but of accident. Irrigated patches were inevitably demarked by either ditches or streams, or the earth or stone embankments of terraces; and the strips (*mo'o*) of dry arable land planted in dry taro or sweet potato were generally bounded by little ridges (*iwi*) of stone thrown up out of the fields.

The typical *ahupua'a* ran like a wedge from sea to mountains. As Lyons (1875, p. 111) well puts it, the central idea of land division in the Hawaiian Islands was "radial," running from the seashore up into the mountains, thus including fishing rights, cultivable lands, upland timber and planting zones, and areas of valuable bird-catching privileges in the higher mountains. On Hawaii the great mountain of Mauna Loa (elevation 13,680 ft.) "is shared by three great lands, Kapapala and Kahuku from Kau, and Humu'ula from Hilo. Possibly Keauhou from Kona may yet be proved to have had a fourth share."² He writes also of the "sharp spur projecting into the east side of

² Mrs. Pukui says that Humu'ula was in the *'okana* of Waimea, not of Hilo.

Haleakala crater [island of Maui], a rock called the 'Pohaku oki aina,'—land-dividing rock, to which the large lands [of this area] came as a centre."

Each *ahupua'a* had definitely fixed (usually natural) boundaries and each had its specific name—as for example on the windward side of Oahu the three adjacent *ahupua'a* of Ka'a'awa, Kahana, and Punalu'u. The boundaries in this case are readily definable, as each *ahupua'a* consists mainly of a broad stream valley running down from the Ko'olau ridge to bay or seashore, marked off each from each by transverse ridges. Colloquially (rather than in legalistic terms) the strip of beach land, with its fishing rights, was known as an *ipu kai* (meat bowl) and the upland plot for cultivation was the *umeke 'ai* (*poi* container hung in a net). These terms referred to the smaller division next described.

'ILI

Probably the most permanent units of land were the sections of the *ahupua'a* termed '*ili* (strips) or '*ili 'aina*. These were portions of *ahupua'a* land allotted to the families which lived on them and cultivated them, in distinction to *ali'i* who were overseers or higher chiefs. It seems likely that the right to continue to use and to cultivate '*ili* stayed with the '*ohana* (extended families) dwelling thereon, regardless of any transfer of title to the *ahupua'a* in which they were located. The '*ili* was essentially a land division, whereas the *ahupua'a* was a tax unit. In October, when taxes were collected, the people put their gifts on an altar or heap (*ahu*) of stones at the boundary of the land division. (See Part Four and description of *Makahiki*.)

An '*ili* that was all in one piece was termed an '*ili pa'a* or complete '*ili*. Some '*ili* consisted of separate pieces, near the sea and in the uplands; such were called '*ili tele* or "jump strips." Some '*ili* permanently belonged to families; these were termed '*ili ku pono*, strips ('*ili*) standing (*ku*) in their own right (*pono*). The '*ili ku pono* were never subject to transfer at the time of reallocation of landed chiefdoms, as the '*ili o ka ahupua'a* ('*ili*-belonging-to-the-*ahupua'a*) might be. The '*ili ku pono*, of all divisions and varieties of land rights, seems to have carried the only form of title that was permanent. It is noteworthy, however, that every '*ili*, of whatever type, had its own individual title, transitory or otherwise, and was carefully marked as to boundary. At the time of the government survey made before the land grants (Great *Mahele*) of 1848, it was found that in every community there were individuals who were versed in the local lore of land boundaries, rights, and history.

According to Alexander (1891, pp. 106-107), on Oahu there were '*ili* that were independent of any *ahupua'a*. This was the case of '*ili* in an area now encompassed by the downtown part of Honolulu, the capital city. Honolulu meant "sheltered bay," and the sheltered arable land near by. It was not a major district, but originally a small locality known until the time of Kamehameha's conquest as Kou, after the chiefly proprietor of that name.

Oahu is notable for a variety of *'ili lele* (often referred to merely as *lele*, jumps). Alexander cites, for example, a beach plot in Kaka'ako, taro plots near the spring (Punahou), and a forest patch on the steep slope above Manoa Valley all as one *'ili lele*. Another example is the *'ili* of Kewalo, which had taro land in Pauoa Valley (between Manoa and Nu'uaniu), part of the *kula* slope of Pu'uwaena (Punchbowl Hill) and the plain below it, and a coastal strip adjoining Waikiki. A glance at a map is sufficient to show the disparate nature of these holdings. Among many other instances, the fact is cited that in the *ahupua'a* of Kalihii and also in a major land division, the *'apana o 'Ewa*, there were *'ili* which included as many as eight to ten *lele*.

Lyons (1875, p. 119) makes mention of several *'ili ku pono* on the island of Hawaii that were dedicated to the war god Ka'ili, and others which were places of refuge. These were not only tax-free but exempt from even the slight tribute of work usually required of other *'ili ku pono* proprietors by their superior chief. Ka'ahumanu, favorite wife of Kamehameha the Great, possessed *'ili* of this sort also, in Waikiki.

Mo'o

Long strips of arable land within an *'ili* were called *mo'o* (strips) or *mo'o 'aina*. We judge it to be primarily associated with wet-taro planting in valley bottoms where strips of *lo'i* extend along the streams and ditches, although dry-taro and sweet-potato plantings were also termed *mo'o*. *Mo'o 'ai*, however, specifically refers to a strip where taro was planted; and a long row of *lo'i* is spoken of as *mo'o kuapapa lo'i*. It was the practice of planters to give individual names to their *mo'o 'aina*.

OTHER TERMS WITH REFERENCE TO LAND USAGE

The following terms are descriptive rather than divisional.

Pauku 'aina were parcels of land where wet taro was grown, but smaller in area than *mo'o*. The word *pauku* means a "piece cut off."

Lo'i was the term for a single irrigated taro flat.

Kuauna were the banks of the taro flats, upon which banana and sugar cane were planted. The term is derived from the fact that the banks were made solid when built by beating with the butt ends of coconut leaf stems (*ku'au*). *Kuaio*, *ika* and *kaika* were synonymous with *kuauna*.

According to Malo (1903, p. 271) "on the *kula* lands the farms of the *ali'i* were called *koele*, *hakuone*, or *kuakua*, those of the people, *mahina 'ai*."

Kihapai was the piece of land (other than *lo'i*) cultivated by a tenant—that is, his plantation. The *kihapai* comprised the plots within the *'ili* that a family of planters cultivated for their own use, as distinguished from the *koele* and *haku one* cultivated for the *ali'i* and the *konohiki*, respectively, and which are

It was to the competent planters, formerly merely tenants, that title in fee simple was given during the *Mahele* to the lands they were then cultivating for their own use; thus the titles and land involved were termed *kuleana*—the planter's property or competence. Because of its fairly recent adoption as a definitive legal term, *kuleana* is generally regarded as not having applied to land in ancient use.

The *kuleana* plot to which title was granted in fee simple was never an 'ili or *koele* over which *ali'i* had, and retained, rights of proprietorship; but a *kuleana* once granted was entirely independent of the *ahupua'a* or 'ili *kupono* within which it might be situated. It is probable that, in the old nomenclature, *kuleana* would be found in most instances to correspond with single or combined *pauku* (parcels of land smaller than *mo'o*) in wet-taro regions and to *kihapai* (plots reserved to the tenant) in dry-taro regions. However, a difference would exist in that the *kuleana* title included not only the planted land but house sites, and also adjoining ground that belonged with the plantation by reason of surrounding it, or being used for growing paper mulberry, or other purposes. The *kuleana* were defined, surveyed, and measured during the *Mahele* by configuration (Lyons, 1875, p. 136), not by map survey.

OTHER LAND AREAS

It will be useful at this point to discuss the terms used for various other areas or regions which comprised the Hawaiian planter's environment. These will be geographical rather than having to do strictly with habitation or cultivation as such, although each term inevitably had relevance to both the latter.

KO KAHA KAI

The land area with which the Polynesian migrant first became familiar was of necessity that along shore, wherever his voyaging canoe made its landfall. This area he termed *ko kaha kai* (place [land] by the sea). This might comprise a broad sandy beach and the flats above it, or the more rugged shore of cove or harbor with its rocky terrain—in fact many and varied descriptions might fit, according to locale.

Kaha was a special term applied to areas facing the shore but not favorable for planting. Kekaha in Kona, Hawaii, was one so named, and Kekaha on Kauai another. The *ko kaha kai* was not without its own verdure of a sort, however. In fact the terrain just above the sandy stretches (*pu'eone*) was often called 'ilima, because of the low-growing, gray-foliaged, golden-flowering 'ilima bushes found in abundance there. *Pohuehue*, the beach morning-glory, also had its natural habitation there, along with 'auhuhu, whose leaves yielded a juice used to stupefy fish for ready catching in the inlets and sea pools. In fact most of the varied low growth of the *ko kaha kai* found use in the planter's or fisher's economy.

Native Planters
Handy, Nandy, Pukui
Bishop Museum Press

KULA LANDS

Next above were the plains or sloping lands (*kula*), those to seaward being termed *ko kula kai* and those toward the mountains *ko kula uka* (*uka*, inland or upland). Here were the great stretches of waving *pili* grass, which was used to make the thick rain-repellent thatch for dwellings (*hale*). Before cultivation took over the area, the carpeting grass was interspersed with vines (such as the *koali*, morning-glory) and many shrubs, all of which found practical uses by the immigrant folk. There were also a few stunted trees. On the *ko kula uka*, the upland slopes, were found the native ginger and other flowering plants, medicinal herbs, and thick-growing clumps of shrubs. Here too the great variety of trees attained to greater height, and their wood became the source of valuable materials for many necessities of life.

This word *kula*, used by Hawaiians for sloping land between mountain and sea, really meant plain or sloping land without trees. (In Tonga and Samoa *tura* means bald.) There is a large land area in the southerly *kula* slopes of East Maui that is named Honua-'ula (Red-earth). Typically, on all the islands the *kula* lands are covered with red soil, both on leeward and windward coasts. This is the soil in which sugar cane and pineapples flourish today. It is soil in which sweet potatoes grow well. (In contrast, dark soil, rich in humus washed down from the forests, is what wet taro requires.) Some *kula* lands, such as those of southern and eastern Hawaii and the southern slopes of Haleakala on Maui, were covered with lava or soil evolved from the dust of recent volcanic eruptions.

The red soil is oldest geologically, having evolved from decomposed basalt oxidized by sun, rain, and air. Next in age is the humus of valley bottoms. Most recent is decomposed lava, such as is typical of Kona, Ka'u, Hilo, and Puna on Hawaii, and of some areas on the southern slope of Haleakala on East Maui.

KAHAWAI

In terms of use, from the Hawaiian planter's point of view it was the area beyond or intersecting the *kula* lands that was of prime importance in dictating his habitation and his favored type of subsistence. This was the *kahawai*, "the place [having] fresh water"—in other words, the valley stretching down from the forested uplands, carved out and made rich in humus by its flowing stream. Here he could find (or make) level plots for taro terraces, diverting stream water by means of *'auwai* (ditches) into the *lo'i*, or descending series of *lo'i*, until from below the whole of the visible valley afforded a scene of lush green cultivation amidst fresh water glinting in the sun. The planter might have his main dwelling here, or he might dwell below and maintain here only a shelter to use during periods of intensive cultivation in the *kahawai*. Here also was a source of many of his living needs and luxuries,

from medicinal herbs to flowers for decorative garlands, and with a wide range in between.

Two other descriptive terms applied to land areas, one belonging to the *kahawai* and one not. The first was *pahe'e*, meaning a wet, soft, or slippery area; and the other was *apa'a*, meaning arid or dry. From its derivative (*pa'a*) meaning firmly bound, the latter became a term of affection for land long lived upon.

WAO

Wao means the wild—a place distant and not often penetrated by man. The *wao la'au* is the inland forested region, often a veritable jungle, which surmounts the upland *kula* slopes on every major island of the chain, reaching up to very high elevations especially on Kauai, Maui, and Hawaii. The Hawaiians recognized and named many divisions or aspects of the *wao*: first, the *wao kanaka*, the reaches most accessible, and most valuable, to man (*kanaka*); and above that, denser and at higher elevations, the *wao akua*, forest of the gods, remote, awesome, seldom penetrated, source of supernatural influences, both evil and beneficent. The *wao kele*, or *wao ma'u kele*, was the rain forest. Here grew giant trees and tree ferns (*'ama'u*) under almost perpetual cloud and rain.

The *wao kanaka* and the *wao la'au* provided man with the hard wood of the *koa* for spears, utensils, and logs for boat hulls; pandanus leaves (*lau hala*) for thatch and mats; bark of the *mamaki* tree for making *tapa* cloth; candlenuts (*kukui*) for oil and lights; wild yams and roots for famine time; sandalwood, prized when shaved or ground as a sweet scent for bedding and stored garments. These and innumerable other materials were sought and found and worked by man in or from the *wao*.

KUAHIWI

The term for mountain or mountain range—a mountainous region—is *kua'hiwi* (backbone). *Kuamauna* is the mountain top, and *kualono* the high reaches just below it. *Mauna* is the term for a specific mountain mass, and may have a descriptive designation following, as Mauna Kea (White Mountain) Mauna Loa (Long Mountain); *pali* denotes a precipice and *pu'u* means hill. The term *mauka* is directional, and means toward the mountains or uplands, or merely inland.

THE ENVELOPING SEA

As much a part of his natural environment as the land on which he dwelt was the sea from which he drew much of his sustenance and on which he voyaged. The Hawaiian planter had names for the near and far reaches of the sea by which his *'aina*, his homeland, was bordered or surrounded. *Pu'eone*

(heaps [of] sand) was the sandy edge of the sea, inshore dunes, or outer sand bar. *Po'ina nalu* or *kai po'i* (sea-breaking) was the point farther out where the wave breaks (*nalu*, wave). *Kai kohola* was the shallow sea inside the reef, the lagoon. *Kai pualena* was the yellowish sea, presumably where streams flow in and roil the waters. *Kai ele* was the dark sea, *kai uli* the deep-blue sea, and *kai-popolohua-mea-a-Kane* (the purplish-blue reddish-brown sea of Kane) designated the far reaches of the immeasurable sea (*Hoku o Hawaii*, September 21, 1917).

Hawaiian descriptive imagery was poetic; and in songs celebrating the natural features or beauties of a given homeland, the delicate nuance of color in landscape, seascape, or cloud was remarked upon. A striking example of this with relation to mists, rain, and sea billows may be seen in the prayer to Ku-of-the-long-cloud, in the section on the sweet potato. Even in common speech these descriptive shadings were applied as precisely as those for the varieties of plants or fish or the semilegalistic divisioning of arable land for practical use. The terms listed above by no means exhaust the many that were in wide use.

WATER

As in the definition of the Hawaiian terms for land, the true old native Polynesian conceptions relative to water may best be brought into focus by studying the words that apply to water.

Wai is fresh water. *Puna* is a spring, or *puna wai*, fresh-water spring. *Wai puna* is spring water. *Kaha wai* is a stream or river (*kaha* meaning place), and the same applies to the ravine, gulch, or valley cut by the stream, or which contains the stream. The artificial diversion of "a flow" of fresh water by means of a ditch or channel, for purposes of domestic use and irrigation, is *'auwai* (*au* meaning a flow or current). A fresh-water pond or lake, whether filled by surface drainage, a spring or springs, stream or ditch water, is *loko wai*, or commonly just *loko* (meaning inside, within).

Water, which gave life to food plants as well as to all vegetation, symbolized bounty for the Hawaiian gardener for it irrigated his staff of life—taro. Therefore, the word for water reduplicated meant wealth in general, for a land or a people that had abundant water was wealthy.

The word *waiwai* means wealth, prosperity, ownership, possession. Literally it is "water-water." A Hawaiian farmer who had all the water he needed for growing taro was indeed a prosperous man. Fresh-water fish could be kept in his wet patches, to live and grow among his taros. Bananas, sugar cane, and *wauke* (paper mulberry) could be grown near by. With all this he could exchange gifts with relatives or friends who dwelt along the shore. With fish, taro, and *tapa*-making plants available because of no lack of water, prosperity was indeed his.

In our English parlance we speak of "the law of the land," possibly because our Anglo-Saxon forebears were cultivators of unirrigated land, and the earliest laws had to do with farming and grazing lands. Taro, which grew along streams and later in irrigated areas, was the food staple for Hawaii, and its life and productivity depended primarily upon water. The fundamental conception of property and law was therefore based upon water rights rather than land use and possession. Actually there was no conception of ownership of water or land, but only of the use of water and land.

The word *kanawai*, or law, also tied back to water. *Ka-na-wai* is literally "belonging-to-the-waters." With farms along the water system upon which all depended, a farmer took as much as he required and then closed the inlet so that the next farmer could get his share of water—and so it went until all had the water they needed. This became a fixed thing, the taking of one's share and looking after his neighbors' rights as well, without greed or selfishness.

So a person's right to enjoy his privileges, and conceding the same right to his fellow man, gave the Hawaiians their word for law, *kanawai*, or the equal sharing of water.

IRRIGATION DITCHES ('AUWAI)

The building and maintenance of flooded terraces (*lo'i*) and of the irrigation ditches (*'auwai*) were communal procedures. This type of work would certainly never have been achieved had the old Hawaiians done their farming on an individualistic basis, without the planning and direction of proprietary chiefs (*ali'i*). Presumably, when new land was to be converted into *lo'i*, the preliminary requirement was the opening up of an irrigation ditch to deliver and distribute the water needed.

Ditch construction and cleaning in historic times were directed by the *konoiki*, or supervisor of lands under the *ali'i*. Nakuina (1894, pp. 79-84) wrote an interesting account of ditches which is abstracted here in part, with some slight additions.

Ditches were dug from the lower end upward. The dam (*mano*, literally "source") in the stream bed was a rough wall of stones and clods. The workers were levied from the various land sections to be benefited by the ditch, in proportion to the number of planters involved. A small section could, however, by furnishing many hands for the ditch building, secure larger water rights than a large section furnishing few hands. In other words, a taro planter's share of water was determined by the amount of labor contributed to the construction and maintenance of the ditch, and was not proportional to acreage of *lo'i*.

Water rights of others taking water from the main stream below the dam had to be respected, and no ditch was permitted to divert more than half the flow from a stream. Planters affected saw to it that this rule was adhered to.

Lo'i dependent on a ditch took their share of water in accordance with a

time schedule, from a few hours at a time day or night up to two or three days. The *konohiki* controlling most of the water was "water boss" (*luna wai*). A planter who did not use his whole share of water lost his right to more than was required for ground actually under cultivation. In times of drought the water boss had the right to adjust the sharing of available water to meet exigencies.

The planter whose turn it was to take water inspected the dam with the water boss and repaired and cleared it if necessary. Then, coming down along the ditch, he shut off by means of earth clods or stones the inlets to other *lo'i*, except such as were to have water at the same time, and opened his own.

Small *lo'i* on hillsides were awarded *kulu*, or "drops" (constant trickles), of which they were never deprived unless in time of drought, for the narrow *lo'i* could not retain standing water as did the broad terraces on flat land.

Periodically, at the call of the water boss the ditches were cleared and repaired, and water was withheld from any planter not participating in this work. Neglect of this duty was rare, for without water a man's land would not produce, and if the land lay neglected he was ordered off by the *konohiki*. The planter thereby lost his right to plant his holding, a right generally inherited from ancestors through successive generations. An energetic man who attracted others to live under him could acquire the right to more water (a larger share of the rotation time) by supplying more hands for the ditch work and maintaining more land under steady cultivation.

Shareholders in a dam killed anyone who broke a dam, cramming his dead body into the break. Local armed conflicts sometimes resulted when relatives of the murdered felon sought reprisal. These conflicts were generally settled peaceably and satisfactorily by the *ali'i*.

Taro *lo'i* alone might claim water. Other cultivated plants were regarded as dry-land crops unless there was water to spare, when it might be used for potatoes, bananas, or cane.]

CONSECRATION OF A NEW 'AUWAI

The consecration of a new irrigation ditch is described as follows by Emma Nakuina (1894, pp. 83-84).

... When the digging of an 'auwai was completed to the satisfaction of the *luna* in charge of the work, a day would be set for the building of the dam. This was an occasion for rejoicing and feasting, and was never hurriedly done. The water *kahuna* or priest [of Lono] had to be first consulted in regard to a favorable day, which being settled, the *konohiki* was required to furnish a hog [a form of Kamapua'a, i.e. Lono] large enough to make a good meal to all the workers of the 'auwai, red fish ('*ahuluhulu*, '*ama'ama* and '*aholehole* [forms of Kamapua'a]), as well as 'awa root for the use of the priest at the opening ceremonies, *kukui*-nut and *poi* galore. On the appointed day all the workers decked with *leis* of swamp-fern, *kovali* (convolvulus), or yellow and green banana leaves split through the midrib, proceeded to the end of the 'auwai nearest the spot chosen