

I palapala no ia aina – documenting the Hawaiian Kingdom: a colonial venture?

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Abstract

Scholars have suggested that Western surveys and maps were tools used to aid colonizers in the dispossession of native people from their lands. While this was often the case, many surveys conducted and maps produced for the Kingdom of Hawai'i during the nineteenth century were done by native Hawaiians, with native informants and based largely on traditional palena, or land boundaries. In the midst of considerable socio-political and cultural upheaval, the mapping of the lands of Hawai'i during this period was largely due to the agency of the Ali'i (chiefs) and other Hawaiian nationals. It is argued that these adaptations of Western techniques were intentional and strategic attempts to aid in the development of the Hawaiian State and secure national lands. In addition, the surveys conducted and maps produced during these years effectively preserved a considerable body of indigenous knowledge of place.

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Focusing on the specific case of the Hawaiian Kingdom during the nineteenth century, this paper seeks to understand the relationship between maps and colonialism in the Hawaiian context. In particular, it attempts to address the role of indigenous agency within this story by considering the extent to which some 'Ōiwi (native Hawaiians) may have generated maps to prevent colonization, rather than treating maps simply as a symptom of their colonization. Is it possible that the *ali'i* (native Hawaiian chiefs) were able to appropriate some of the tools of modernity rather than simply being its passive victims?

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This paper thus departs from much twentieth-century scholarship on the Hawaiian Kingdom that has sought to explain the course of nineteenth-century history through the lens of informal colonialism.¹ While much valuable scholarship has been done from this perspective, this paper seeks to speculate on what conclusions might be drawn if one looks at the geo-history of the Hawaiian Kingdom in another way, one in which native Hawaiian *ali'i* were active agents in the appropriation of the 'tools of the colonizer' in their attempts to resist colonization. In other words, it asks whether the tools of the colonizers were used by Hawaiian *ali'i* against colonialism itself?

The first half of the nineteenth century was an era of considerable cultural and socio-political change for Hawai'i and its native people. A wave of outside influences swept through the islands, introducing new ideologies, cultural norms and worldviews as well as new technologies and materials to both the ruling *ali'i* and the *maka'āinana* (commoners). In particular, the establishment of the Kingdom of Hawai'i, with the adoption of 'modern' forms of government, represented a fundamental social change. The Hawaiian Kingdom was founded in 1810 by Kamehameha I and was ruled by Hawaiian *ali'i* until an illegal U.S. intervention supported a *coup d'état* in 1893, which deposed Hawai'i's last reigning monarch, Queen Lili'uokalani.² The ruling *ali'i* of the Kingdom struggled for most of the nineteenth century to maintain sovereignty over their islands in the midst of foreign attempts to gain control over the lands and resources of Hawai'i. The policies implemented during these difficult years were a result of a combination of external pressures and local strategic responses in attempts by the *ali'i* to secure their nation's political and cultural future.

One of those policies, the surveying and mapping of Kingdom lands, had far-reaching political and economic implications, and also affected traditional Hawaiian concepts of land division and *palena*, or place boundaries.³ *I palapala no ia aina* ('the creation of documents for the lands of the Hawaiian Kingdom') involved the production of documentation in the form of treaties, maps, and laws, all of which were of critical importance for the Hawaiian State. In fact, it was a treaty or declaration that assured the very recognition of the Kingdom as an independent state. The Hawaiian polity was born of a legal system that, among other things, codified the lands and their management and generated maps which would lay claims to the extent of the territory. This documentation, essential for securing the legitimacy of the Hawaiian Kingdom within the 'modern' world, was initiated under the leadership of Hawaiian *ali'i*, who were able to incorporate aspects of the 'traditional' land system into the new Hawaiian State.

¹ S. Merry, *Colonizing Hawai'i: the Cultural Power of Law*, New Jersey, 2000; N. Silva, *Aloha Betrayed*, Durham, 2004; L. Kame'eleihiwa, *Native Land and Foreign Desires: pehea la e pono ai?*, Honolulu, 1992; J. Kamakawiwo'ole Osorio, *Dismembering Lahui: a History of the Hawaiian Nation to 1887*, Honolulu, 2002.

² G. Cleveland, *Address to U.S. Congress* December 18, 1893, 'The lawful Government of Hawaii was overthrown without the drawing of a sword or the firing of a shot by a process every step of which, it may be safely asserted, is directly traceable to and dependent for its success upon the agency of the United States acting through its diplomatic and naval representatives.....By an act of war, committed with the participation of a diplomatic representative of the United States and without authority of Congress, the Government of a feeble but friendly and confiding people has been overthrown.'

³ The concept of *Palena* has ancient origins in 'Ōiwi history. Here the term is translated as 'place boundary,' a particular type of boundary that is difficult to express in English. In the 'traditional' system, *palena* have qualities that appear both feudal and communal as far as land use is concerned. The purpose of this paper is to show how *ali'i* (Hawaiian Nobles) adapted a traditional concept and attempted to translate it into a 'modern' world.

Many scholars have suggested that Western surveys and maps are best understood as tools used by ‘colonizers’ in the dispossession of native people from their lands.⁴ While this is true in other contexts, we argue that the Hawaiian case is different in some fundamental ways. Many of the surveys conducted and maps produced within the Kingdom of Hawai‘i during the nineteenth century were carried out by native Hawaiians, and most of these were done with native informants and were based largely on traditional *palena*. The maps produced by these surveys are, in effect, a hard-copy translation, admittedly imperfect, of ‘Ōiwi (native Hawaiian) mental maps held in the minds of a spatially literate people.⁵ This stands in marked contrast to early surveys in the United States, which had little regard for how the original inhabitants saw or possibly bounded the land.⁶ While official maps of the other 49 states do not reflect the traditional boundaries maintained by the indigenous people, Hawai‘i is markedly different. Yet the tendency of much existing scholarship to view maps as a tool of colonialism leaves little space for understanding or evaluating cases where maps may have been used as a tool for resisting colonialism.

This paper critically examines the development and role of surveying and mapping in Hawai‘i during the Kingdom years. We find that these surveying activities and the resultant maps were brought about by a combination of processes, most notably the adaptation by native Hawaiians of new technologies; attempts to record traditional knowledge of *palena* before elders passed; the imperialistic intent of foreigners; and the efforts of *ali‘i* to maintain their national lands. Though these maps and the *palena* they exhibit are not direct translations of the knowledge that existed prior to their creation, it is important to highlight the critical efforts of a number of ‘Ōiwi and Hawaiian nationals of foreign origin alike to map the places and *palena* of Hawai‘i.

The Mahele of 1848

The Mahele of 1848 set the stage for the large-scale privatization of lands in the Hawaiian Kingdom. In order for this to happen, the undefined rights of three groups with vested rights in the dominion of the Kingdom – the government, the chiefs and the native tenants – needed to be settled as stated in the Declaration of Rights and laws of 1839. As Lyons puts it in his discussion of the principles of the Mahele,

The theory that was adopted, in effect, was this: that the King, the chiefs, and the common people held each undivided shares, so to say, in the whole landed estate.⁷

⁴ M. Edney, *Mapping an Empire: The Geographical Construction of British India 1765–1843*, Chicago, 1997; I. Barrow, *Making History, Drawing Territory: British Mapping in India, 1765–1905*, New York, 2003; G. Byrnes, *Boundary Markers, Land Surveying and the Colonization of New Zealand*, Wellington, 2001; B. Braun, *The Intemperate Rainforest*, Minneapolis, 2002; T. Mitchell, *Colonizing Egypt*, Berkeley, 1998; C. Harris, How did colonialism dispossess? Comments from the edge of Empire, *Annals of the Association of American Geographers* 94 (2004) 165–182.

⁵ D. Woodward and M. Lewis, *The History of Cartography, Cartography in the Traditional African, American, Arctic, Australian, and Pacific Societies*, Vol. 2, Book 3, Chicago, 1998. While not all authors in this volume agree that mental maps and performance cartography qualify as true cartography my opinion falls with those that do. For a related discussion of this issue see R.P. Lewis, Can you hear us now? Voices from the margin: indigenous methodologies in geographic research, *Geographical Research* 45 (2007) 130–139.

⁶ E.T. Price, *Dividing the Land: Early American Beginnings of Our Private Property Mosaic*, Chicago, 1995, 11.

⁷ C.J. Lyons, Land matters in Hawaii, *The Islander*, 23 July 1875.

The Mahele was an instrument to begin settling these undivided interests, and it was the division of nearly all the land in the Hawaiian islands between government and chiefs (the King being the highest ranking chief) which allowed for large-scale private ownership in the Hawaiian Kingdom, subject to the rights of native tenants (native Hawaiian ‘commoners’) to make their claims for land. The only group still to be involved in this process was the native tenants and this would be later addressed in the Kuleana Act of 1850. Those individuals of the native tenant class who did not divide continued to possess, in perpetuity, an undivided right in the entire dominium, until they divided their interest and acquired a freehold title whenever they desired a division.⁸

The Mahele has been viewed as the ‘single most critical dismemberment of Hawaiian society’.⁹ Many scholars have theorized that it was effectively a means of dispossession for most native subjects of the Hawaiian Kingdom.¹⁰ The most commonly noted statistic evidencing this dispossession is that Maka‘āinana (or native tenants) were awarded only 28,000 acres as a result of the Mahele. This statistic is only for *kuleana* awards, however, and does not include government grants that could have been acquired as a result of section 4 of the Kuleana Act of 1850, as well as the fact that native tenants had the right to exercise their interest in the dominium. Noenoe Silva hints that previously accepted understandings of the Māhele may need to be re-analyzed when she writes, ‘Keanu Sai, however, has noted more recently that maka‘āinana were allowed to file claims after the official deadlines... Further, the government lands were offered to the maka‘āinana at low prices, at first fifty cents per acre, then later one dollar per acre’.¹¹ *The Hawaiian Annual* of 1896 lists 667,317.41 acres of government grants as having been sold by 1893. Looking through the index of government grants, one finds the names of large landowners who used the lands for sugar, as well as the names of many native subjects who may have purchased lands at reduced rates as a result of the Kuleana act.¹² While there is no current figure for the acreage of government lands acquired only by native tenants, the evidence that government lands were being sold at low rates to natives might be a cause for rethinking the outcomes of the Mahele. As government grants have received very little evaluation by contemporary scholars on the Mahele, it is certainly an area open for further research and analysis.¹³ This paper

⁸ W.D. Alexander, *A Brief History of Land Titles in the Hawaiian Kingdom*, Honolulu, 1882, 13–14. This section explains the principles agreed to in the Privy Council on 18 December, 1847. It notes that ‘The division between the Chiefs or the Konohiki and their Tenants, prescribed by Rule 2d shall take place, whenever any Chief, Konohiki or Tenant shall desire such as division...’ See also *Dowsett v. Maukeala* Supreme Court of Hawaii, 10 Haw. 166; 1895 Haw. In this case native tenants were living in an ahupua‘a as such until courts of the Republic of Hawai‘i ruled that they no longer could live legally as such. These native tenants under Kingdom law would have been able to request that their division of interest be made and accept their allodial title.

⁹ Kamakawiwo‘ole Osorio, *Dismembering Lahui* (note 1), 44.

¹⁰ Kame‘eleihiwa, *Native Land and Foreign Desires* (note 1); J. Chinen, *Original Land Titles in Hawai‘i*. Honolulu, 197; Kamakawiwo‘ole Osorio, *Dismembering Lahui* (note 1); S. Banner, Preparing to be colonized: land tenure and legal strategy in nineteenth-century Hawaii, *Law and Society Review* 39 (2005) 273–314.

¹¹ Silva, *Aloha Betrayed* (note 1), 42.

¹² *An Act Confirming Certain Resolutions of the King and Privy Council, Passed on the 21st Day of December, A.D. 1849, Granting to the Common People Allodial Titles for Their Own Lands and House Lots, and Certain Other Privileges*: ‘That a certain portion of the government lands in each island shall be set apart, and placed in the hands of special agents, to be disposed of in lots of from one to fifty acres, in fee-simple, to such natives as may not be otherwise furnished with sufficient land, at a minimum price of fifty cents per acre.’

¹³ Donovan Preza is currently writing his Masters thesis in Geography at the University of Hawai‘i Mānoa on this topic.

is not concerned with this issue specifically, but operates on the assumption that the Mahele did not dispossess native tenants to the extent that has been previously theorized.

The tools of the colonizer

The ‘bounding’ of native territory and the subsequent dispossession of natives from their land has received much attention from historians and geographers in recent years. Cole Harris, for example, writes that ‘the management of the dispossession of the colonized of their land rested with a set of disciplinary technologies of which maps, numbers and law were perhaps the most important’.¹⁴ Recent work has, however, qualified such a perspective. Karl Offen, for example, has shown how indigenous spatial practices could contribute to the making of colonial maps. Offen demonstrates how the spatial practices of the Mosquitia between 1629 and 1779 played a part in the creation of Spanish and English maps which documented Mosquitia territory.¹⁵ In a very different context, Thongchai Winichakul suggests that the tools of the ‘colonizer’ were used by indigenous elites forming the process of creating modern Thailand. Thongchai provides a thoughtful analysis of the creation of a non-European independent state in order to resist colonization, in which indigenous elites adapted some of the processes of European colonization for their own means.¹⁶ A recent article by Brett L. Walker on the Japanese mapping of Sakhalin island also provides an example of non-European usage of mapping technologies for the protection and expansion of national sovereignty. Japanese agents such as Mamiya Rinzō appropriated European mapping technologies which position Sakhalin island into a system of representation recognizable to those knowledgeable of European cartographic principles. Walker argues that Japanese appropriation of Western cartographic techniques to secure and expand national territory, ‘demonstrates that the mapmaking tools of empire could also be wielded as tools to resist empire’.¹⁷ The negotiation and integration of European tools of representation and science by non-European actors is a theme which thus runs through a number of recent works.

Nonetheless, the case of Hawai‘i differs from that of both Thailand and Japan, on several levels. Firstly, the territory of the Hawaiian Kingdom is not geographically comparable. Surrounded by sea, rather than by competing states and groups, local elites would not have felt the need to use the ‘geo-body’ of the nation (as Thongchai theorizes was the case in Thailand) to the exclusion of other native people. The Hawaiian Kingdom’s territory had been consolidated by 1810 either through warfare or treaty prior to the territory being mapped (onto paper) by agents of the Kingdom. Secondly, *Ka Pae ‘Āina* (the Hawaiian Islands) were fairly homogeneous in ethnic terms, even prior to Kamehameha’s conquest which began in 1793. A study of the genealogies of Hawaiian *ali‘i* show the intimate connections of ruling families on differing islands, as well as the fact that very similar languages, political systems of governance, and religious

¹⁴ Harris, How did colonialism dispossess? (note 4), 179.

¹⁵ K.H. Offen, Creating Mosquitia: mapping Amerindian spatial practices in eastern Central America, 1629–1779, *Journal of Historical Geography* 33 (2007) 254–282.

¹⁶ T. Winichakul, *Siam Mapped: A History of the Geo-Body of a Nation*, Honolulu, 1997, 131.

¹⁷ B.L. Walker, Mamiya Rinzō and the Japanese exploration of Sakhalin Island: cartography and empire, *Journal of Historical Geography* 33 (2007) 312.

systems were in practice throughout the islands prior to the unification by Kamehameha. Moreover, lands had been bounded and ordered traditionally according to a complex system of *palena* long before they were mapped onto paper.

The material effects of exchange between the ‘West’ and the people of the places that ‘Westerners’ visited have frequently been interpreted in spatial terms. In this approach, the sites of exchange are understood as a space where Western tools, concepts and technology are imposed, while native attempts to adapt and make use of those processes are interpreted in terms of acculturation or, more recently, transculturation. Mary Louise Pratt describes transculturation as an attempt to conceptualise

how subordinated or marginal groups select and invent from materials transmitted to them by a dominant or metropolitan culture. While subjugated peoples cannot readily control what emanates from the dominant culture, they do determine to varying extents what they absorb into their own, and what they use it for.¹⁸

Transculturation is used in this context to define the adaptations of subjugated or marginal peoples in any spot on the globe, in each and every space of the ‘periphery.’ We describe Pratt’s application of this concept as ‘spatial’ because as a theory it is more concerned with the space of the mind than with the realm of actual embodied experience. This distinction between subordinate (marginal) and dominant (metropolitan) spaces is based to a large extent on the mind and the ‘eye’ of the beholder, and in itself says very little about the experiences of the bodies that inhabit those places. There is a danger that such concepts understate the capacity of ‘subjugated’ peoples to facilitate and even control the adoption of new technologies within their own cultures, rather than reacting passively to the imposition of new material or conceptual frameworks.

In contrast to such a ‘spatial’ analysis, what Casey calls a ‘placial’ approach to the local adoption and adaptation of tools, concepts or technologies originating elsewhere may lead to a clearer understanding of that adaptive action.¹⁹ The term ‘placial’ here refers to a place-based approach, which requires the researcher to be immersed in the particularities of place, and in which an embodied knowledge of places precedes the formation of theory about spaces. As Murton writes, ‘the understanding of the great divide between spatial and placial ways of seeing and coming to know the world is critical for geographers working on the interface of Native and Western understandings of the world’.²⁰ In the present context, a placial approach requires attention to the relationships between subjugated peoples and the places which they inhabit, as well as the enduring nature of senses of place even under conditions of subjugation.²¹

Evidence of the adoption and adaptation of Western tools and concepts by Hawaiians is abundant in their rich history, both ancient and recent. Iron, electricity, mapping, and independent statehood were among some of the more modern tools and concepts that were brought into the consciousness of Hawaiians during the late-nineteenth and twentieth centuries. Rather than

¹⁸ M.L. Pratt, *Imperial Eyes. Travel Writing and Transculturation*, New York, 1992, 6.

¹⁹ E. Casey, How to get from space to place in a fairly short stretch of time: phenomenological prolegomena, in: S. Feld and K.H. Basso (Eds), *Senses of Place*, Santa Fe, 1996, 13–52.

²⁰ B. Murton, Interpretations of the foreshore in Aotearoa/New Zealand, Paper presented at the 2005 Association of American Geographers conference, Denver, Colorado.

²¹ Casey, How to get from space to place (note 19).

pre-supposing that such Western devices were simply imposed on Hawai'i's native people, might it be the case that 'Ōiwi themselves chose to engage and adapt such tools and technologies on the basis of their own customary knowledge systems?

Hawaiian ways of knowing

Hawaiian people value applied knowledge. 'Ōlelo no 'eau (traditional proverbs) such as *ma ka hana ka 'ike* ('through work one gains knowledge') stress the value of knowledge gained through application. Knowledge and ideas that can be applied, as a means to achieve a goal, are generally deemed more important than theoretical knowledge or knowledge for knowledge's sake.²² *Kūpuna* (elders or ancestors) thus named plants that they could use, while those that had no use frequently had no name.

During the Hawaiian Renaissance (a cultural, political, and spiritual return to Hawaiian modes of 'being in the world' which began to blossom in the 1970s), much attention has focused on the development and expansion of a distinctively Hawaiian epistemology. Scholars such as Meyer have brought Hawaiian ways of knowing from cultural practitioners and *kūpuna* into the halls of academia, opening doors to Hawaiian ways of knowing.²³ This elusive, but fundamental, aspect of the Hawaiian worldview is also what drives many Hawaiian language classes which seek to provide a framework for understanding Hawaiian ways of knowing through our native tongue. As students of Hawaiian language, we strive to think about thinking through our *maoli* (native) language; to reach a place in which we are able to understand and evaluate Hawaiian concepts in comparison to each other, rather than in contrast to concepts that arise out of English.

What, then, can be said about Hawaiian philosophy? Within Hawaiian *mo'olelo* (history), there are a variety of different ways of seeing and knowing the world to be found. A tremendous amount of *mana* (spiritual energy and material effort) has been put into understanding and developing these Hawaiian epistemologies.²⁴ At the same time, there is much evidence in Hawaiian history to suggest that the local population took an opportunistic attitude toward useful technologies or ideas emanating from elsewhere. For instance, Hawaiians of the late eighteenth and early nineteenth centuries quickly recognized the utility of steel and iron, and incorporated these materials into applications such as ship making. As the French navigator Louis de Freycinet noted in 1819,

there were five brigs of 90 to 100 tons each, and equal number of 60-70 ton schooners, and about ten 20-ton cutters—all in all, twenty vessels of European type. The brigs were sold to the islanders by the Anglo-American speculators, and the rest came from the King's shipyards where they had been built by the natives themselves under the direction of foreign carpenters.²⁵

This incident illustrates a Hawaiian philosophy that is inclusive and opportunistic toward useful technologies or ideas. This way of knowing would not be based only on the experience of one's ancestors, but rather on one's own reasoning to see the utility of including non-'Ōiwi originated

²² M. Meyer, *Ho'oulu Our Time of Becoming: Hawaiian Epistemology and Early Writings*, Honolulu, 2004, 113.

²³ M. Meyer, Native Hawaiian epistemology: sites of empowerment and resistance, *Equity and Excellence in Education* 31 (1998) 22–28.

²⁴ M. Meyer, *Ho'oulu Our Time of Becoming* (note 22).

²⁵ S.L.C. De Freycinet, Hawai'i in 1819: a narrative account, *Pacific Anthropological Records* 26 (1978) 91. Iron was used by the 'Ōiwi well before 1819: D. Kalākaua, *The Legends and Myths of Hawai'i*, Honolulu, 1999, 182–185.

ideas and objects that are nevertheless useful. This form of Hawaiian knowledge acquisition has not been explored in depth and may provide fruitful ground for future research.

This philosophy may also shed light on the efforts made by the *Mō‘ī* (King) Kalākaua (1874–1891) to make Hawai‘i’s palace the first seat of government in the world to make use of electricity.²⁶ Kalākaua, a man of confidence and energy, also challenged missionary assumptions of morality and promoted traditions like *mele* (song), *oli* (chant), *hula* (dance) and *mo‘okū‘auhau* (genealogy) that link *‘Ōiwi* to their metaphysics.²⁷ Many Hawaiian ways of knowing were available to Kalākaua, who we must thank, together with Lili‘uokalani (last Queen of Hawai‘i), for bringing back into Hawaiian consciousness such diverse sources of knowledge as the Kumulipo (a chant which explains the origins of the universe). Kalākaua also founded the Hale Naua society, a ‘secret’ society that attempted to preserve and rejuvenate cultural practices such as the Hawaiian martial art of *lua*.

Cultures and the bearers of those cultures are not static. When Kalākaua befriended Thomas Edison and took advantage of the power of electricity, did Hawaiians gazing at the illuminated palace on a moonless night marvel at his industriousness or simply regard it as a Western imposition?

S.P. Kalama’s 1838 map: acculturation or transculturation?

It has been suggested that ‘about six hundred years ago according to the dating of surveyor Curtis J. Lyons, *‘Ōiwi* created the *moku* (a land division roughly equivalent to a district) and settled on a series of names for them’.²⁸ Since the ancient divisions were already well established on the ground and in the minds of the Hawaiian people when the Kingdom of Hawai‘i began to ‘modernize’ its land system in the period of the Mahele of 1848, the Kingdom was able to award large portions of land based on traditional name and location alone.

In a history of the early mapping of Hawaii, Fitzpatrick notes that one of the earliest written maps of *ahupua‘a* (a basic Hawaiian division of land that is smaller than a *moku* district) available during the time of the Mahele was created at Lahainaluna by a Hawaiian denoted on the map as S.P. Kalama.²⁹ The map is entitled *Hawai‘i nei Na Kalama i kaha* which translates as ‘A map of the Hawaiian islands etched by Kalama.’ A prominent government surveyor and later member of the privy Council, Kalama became familiar with the mapping approaches developed elsewhere, for example, through his encounter with a party of Americans who toured Hawai‘i to collect botanical specimens.³⁰ On this occasion, Kalama guided the visitors and witnessed the power of mapping first hand. One of the first of its kind, the Hawai‘i Nei 1838 map by Kalama shows *ahupua‘a* in color codes, as well as *moku* divisions. As Fitzpatrick notes,

The most significant aspect of the map is the number of place names shown for each island. Earlier maps of Hawai‘i contained few names, usually giving the names of islands, districts, and some of the important anchorages. On the 1838 Lahainaluna map, however the islands are ringed by the names of hundreds of *ahupua‘a*.³¹

²⁶ B. Sigall, *The Companies We Keep, Amazing Stories about 450 of Hawai‘i’s Best Known Companies*, Honolulu, 2004, 169.

²⁷ Silva, *Aloha Betrayed* (note 1), 88–122.

²⁸ G. Fitzpatrick and R. Moffat, *Surveying the Mahele*, Honolulu, 1995, 23.

²⁹ G. Fitzpatrick, *The Early Mapping of Hawai‘i*, London, 1987, 111.

³⁰ *The Friend*, December 16, 1875.

³¹ Fitzpatrick, *The Early Mapping of Hawai‘i* (note 29), 112.

Kalama seems to have adapted the Western mode of mapping to create a product that reflects a distinctively ‘Ōiwi approach or view of place and boundaries (Fig. 1). The decision to create a color coding for *moku* and different lettering for *ahupua‘a* was an act of genuine agency, in a way taking traditional *palena* and attempting to put them, for the first time, into a language that could be understood by other states and cultures of the world. In creating the only written map of *ahupua‘a* in the Mahele, Kalama’s intention seems to have been to convey *ahupua‘a* and *moku* divisions on land, although as knowledgeable a man as he would also have been able to compose maps of other Hawaiian land divisions such as ‘*ili lele* and ‘*ili kupono*, as well as understand that some of these divisions extended into the sea.³² Furthermore, Kalama was not only a mapmaker, he was also note taker for the *Buke Mahele* (book of land awards for the 1848 Mahele). Kame‘eleihiwa writes that Kalama was a secretary for the *ali‘i* and that he described the proceedings of the Mahele in the probate case of Hewahewa, where Kalama writes, ‘I was Clerk for the Commission who made the division of the lands in 1848’.³³

Is Kalama’s map a form of acculturation, or perhaps transculturation? We argue that it is neither. Kalama, a native man of Hawai‘i, purposefully used the tool of mapmaking to commit to paper traditional divisions of land and the names of those divisions. This is very significant because a map is a tool of representation, a way of expressing an image of the world. While a rifle, for example, may aid in warfare it does nothing to represent the forms of traditional warfare and tactics. The map may be still more powerful in this respect. Kalama used this tool of representation to show the viewer a glimpse of traditional knowledge. He effectively represented a Hawaiian way of bounding the land in a form that could have been understood (at least at a basic level) by those who had no knowledge of this vast system of traditional *palena*. Effectively this conveyed the message that the Hawaiian Kingdom was not empty of inhabitants who have claim to the land, and that the land was, in fact, ordered under a complex Hawaiian system of knowledge.

Surveying the state

Cadastral mapping in the modern sense originated in Europe, notably France. The triangulation of national territory in order to make a base map for the country was an astonishing undertaking for the time and required the coordination of different kinds of knowledge systems. As David Turnbull writes,

Ultimately, the national map could only be achieved by bringing into line the king, Jupiter’s satellites, pendulum clocks, telescopes, quadrants, new printing techniques, and all the provinces of France as well as the Earth itself. In aligning all these places, practices, people, and instruments a new space was created, a space that we now take for granted but which did not come into existence naturally or even easily.³⁴

³² Another interesting aspect of Kalama’s map is that he uses color coding to represent *moku* boundaries on Maui, but uses the same system to represent *ahupua‘a* boundaries on Lāna‘i. This would be something that could go unnoticed to those unfamiliar with traditional *palena*.

³³ Kame‘eleihiwa, *Native Land and Foreign Desires* (note 1), 224.

³⁴ D. Turnbull, *Cartography and science in early modern Europe: mapping the construction of spaces, Imago Mundi* 48 (1996) 16–18.

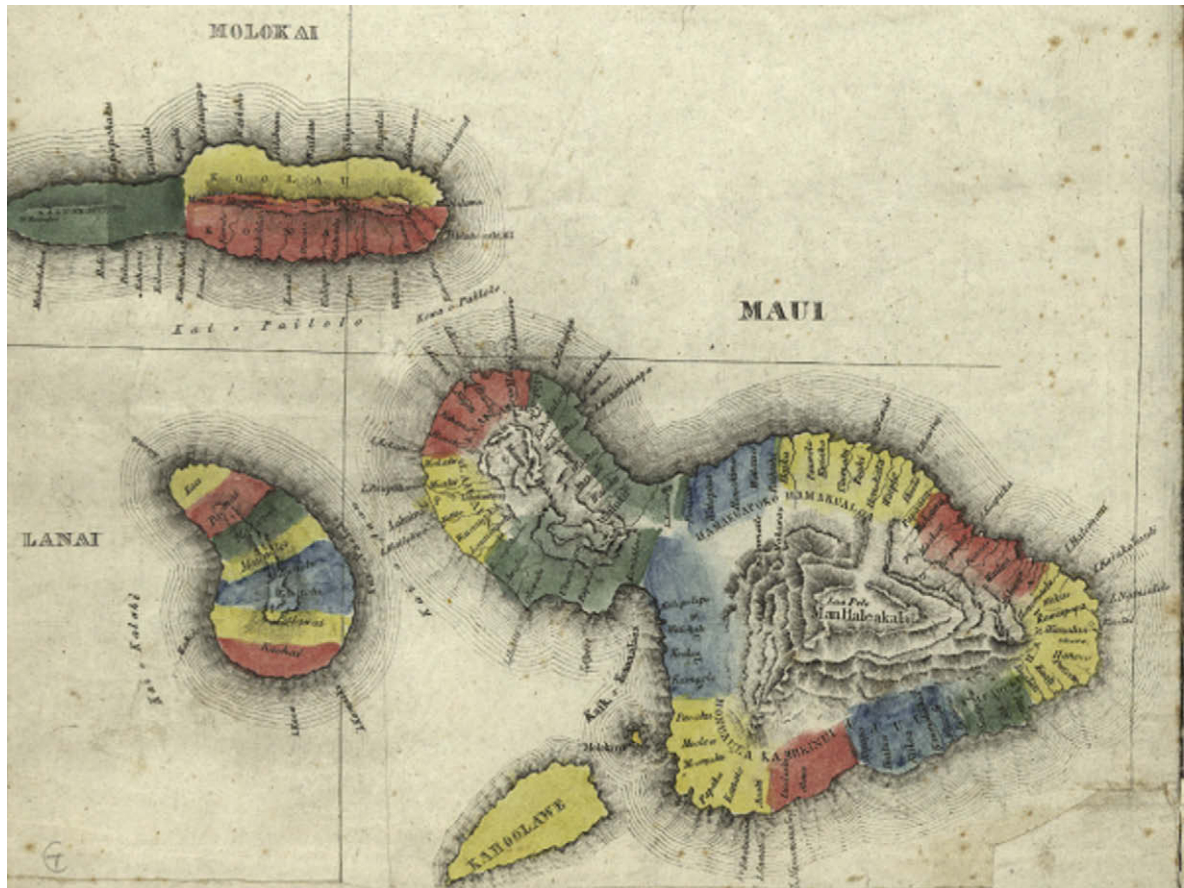


Fig. 1. A portion of the 1838 *Hawaii nei* by S.P. Kalama. Library of Congress Geography and Map Division.

The English built on the French system in mapping out their empire and, in the process, learned from the French experience.³⁵ In this context, it could hardly be suggested that the technology was owned by the French and that the English were then ‘acculturated’ into its use: rather, the English saw the power that a map of the entire territory could have in the ‘service of the State’ and used it for their own means.

The early Cadastral mapping of states consisted of mapping out pre-existing usages of the land.³⁶ This contrasted with the mapping performed in places that were settler colonies, like Australia and America: ‘There it was a question less of mapping pre-existing patterns of land use than of surveying parcels of land that would be given or sold to new arrivals from Europe

³⁵ Turnbull, *Cartography and science* (note 34), 19.

³⁶ A. Pottage, *The measure of land*, *Modern Law Review* 57 (1994) 361–384. The original legal significance of cadastral mapping was tied to the descriptions of tenants who occupied the land and understood the local sense of place and property. An exception is new house building schemes where the map began to shape out the development and replace local knowledge schemes. See R.J.P. Kain and E. Baigent, *The Cadastral Map in the Service of the State*, Chicago, 1992.

and of ignoring indigenous peoples and their common-property regimes'.³⁷ When colonies were surveyed, as for example in the western states of North America³⁸ and New Zealand,³⁹ the resultant maps did not reflect pre-existing indigenous usages, but rather checkerboard grids ready to be filled: these lands were treated as empty slates that needed to be rationally ordered for future land use purposes. In the words of Shapiro, the Land Ordinance proposed by Jefferson 'constituted an erasure, a cartographic overcoding of indigenous spatial practices'.⁴⁰ This reordering of the land in accordance with a radically different epistemology and worldview is central to the colonial mapping enterprise.⁴¹ As Walker notes in the case of Japan, surveyor Mamiya Rinzō produced maps which 'emptied Sakhalin of human inhabitants' and ethnographies that classified the indigenous Ainu 'according to early and modern Japanese taxonomies and economies'.⁴²

The history of the mapping of Hawai'i, however, took a different path. This needs to be seen in the context of the formation of the nation state, as recognized internationally, in 1843.⁴³ Having seen the way other native nations were being colonized around the Pacific and the globe, Hawaiian leaders went to great lengths to secure the recognition of the Hawaiian Kingdom as independent.⁴⁴ The recognition of Hawai'i as an independent state (or in the parlance of international law, an International Person), provided an assurance that it could meet with and negotiate treaties with other independent states as judicial, if not factual, equals. Becoming an independent state would prevent Hawai'i being engulfed by other independent states by shielding it from colonization. The practical political value of being included in the family of nations was understood by 'Ōiwi of the early Kingdom era, *maka'āinana* and *ali'i* alike.⁴⁵ *Lā Kū'oko'a*, or Hawaiian independence day, was henceforth celebrated on the 28th of November, which was the day the Hawaiian Kingdom received official recognition as an independent sovereign state by the British and the French.

Implementing a mapping system was a critical step enabling the Hawaiian State to engage with other independent states. Property disputes that had arisen between foreigners and natives

³⁷ J. Scott, *Seeing Like a State*, New Haven and London, 1998, 49.

³⁸ Kain and Baigent, *The Cadastral Map* (note 36), 291–297.

³⁹ Byrnes, *Boundary Markers* (note 4), 34–35.

⁴⁰ M. Shapiro, Radicalizing democratic theory: social space in Connolly, Deleuze & Rancière, Paper presented at Goldsmiths College London, 17 September 2003.

⁴¹ Kapil Raj, Circulation and the emergence of modern mapping: Great Britain and early Colonial India, 1764–1820, in: C. Markovits, J. Pouchepadass and S. Subrahmanyam (Eds), *Society and Circulation: Mobile People and Itinerant Cultures in South Asia, 1750–1950*, Delhi, 2003.

⁴² B.L. Walker, Mamiya Rinzō and the Japanese exploration of Sakhalin Island (note 17), 307.

⁴³ Hawai'i was recognised as an 'independent state' by the formal joint-Declaration of Britain and France, November 28, 1843. See The United Kingdom National Archives FO 93/33/40A also see D.K. Sai, American occupation of the Hawaiian state: a century unchecked, *Hawaiian Journal of Law and Politics* (2004) 53. Also, M. Craven, Continuity of the Hawaiian Kingdom, *Hawaiian Journal of Law and Politics* (2004) 461.

⁴⁴ W. Judd, *Hawai'i Joins the World*, Honolulu, 1998, 118–160.

⁴⁵ On the basis of the idea of state continuity in international law, a case was held in the Permanent Court of Arbitrations at the Hague where the issue of the continuity of the Hawaiian state was indirectly addressed. see Larsen vs. Hawaiian Kingdom <http://www.pca-cpa.org/ENGLISH/RPC/LAHK/lahkaward.htm>; also see D. Bederman and K. Hilbert, Lance Paul Larsen v. The Hawaiian Kingdom, *American Journal of International Law* 95 (2001) 927–933; P. Dumberry, The *Hawaiian Kingdom Arbitration Case* and the Unsettled Question of the Hawaiian Kingdom's Claim to Continuity as an Independent State under International Law, *Chinese Journal of International Law* 1 (2002) 655–684; Craven, Continuity of the Hawaiian Kingdom (note 43). http://www.hawaiiankingdom.org/pdf/Continuity_Hawn_Kingdom.pdf.

dragged the state into international disputes, such as the Paulet affair.⁴⁶ Another important impetus for mapping, as expressed by Prince Lot Kapuāiwa (Kamehameha V), was a concern over the loss of knowledge of traditional *palena* due to the alarming death rate of *kūpuna*.⁴⁷ For this reason, the Prince initiated the first large-scale surveys of the Hawaiian Kingdom with the Boundary Commission of 1862, at least partially in an attempt to use maps to transfer this knowledge. In 1849, when Lot Kapuāiwa was eighteen years of age, he visited France, England, Mexico and North America and learned first hand the importance of mapping for the functioning of the state.

During the Mahele, large portions of land were awarded via Konohiki (awards to a chief, often large land parcels); awards were made by name and not accompanied by survey. Frequently an *ali'i* was awarded an entire *ahupua'a*, or *'ili* (a division of land smaller than an *ahupua'a*), subject to the rights of native tenants.⁴⁸ Large landowners such as the government or private landowners such as individual chiefs might want to understand precisely what lands they had been awarded. In some cases, disputes between neighboring landowners may have resulted from the lack of knowledge about the exact boundaries of newly acquired lands. These problems were to be remedied through the work of a new Boundary Commission.⁴⁹

There are, however, subtle differences between the different versions of the Boundary Commission Act as it was expressed in Hawaiian and in English. Introduced by 'Prince Kamehameha' (Lot Kapuāiwa) on June 26 of 1862, the English version of the 'Act for Providing for Commissioners of Boundaries' states that

all persons, owning land, within this Kingdom awarded by the Commission to quiet land titles, by name only, without boundaries being defined, are hereby required to file with the said Commissioner of Boundaries within four years from the passage of this Act, a survey defining by natural boundaries or otherwise the limits of such land belonging to them.⁵⁰

This seems to focus on settling the interests of the present and future owners of the land awards. Yet the Hawaiian version of the same section makes clear that ancient boundaries are to be

⁴⁶ The Paulet affair was a land dispute between Richard Charlton (a British national) and the Hawaiian Kingdom that led to the eventual illegal seizure of Hawai'i by the British Navy for a period of roughly six months. A formal apology for the actions of Lord Paulet was later sent by the British government via Admiral Thomas and the occupation of the Hawaiian Kingdom ended on the 31 day of July 1843: S. Lauding, Editors Note, *Hawaiian Journal of Law and Politics* (2004) 1; [http://www2.hawaii.edu/~hslp/journal/vol1/Editor_Intro._\(HJLP\).pdf](http://www2.hawaii.edu/~hslp/journal/vol1/Editor_Intro._(HJLP).pdf).

⁴⁷ Kingdom of Hawai'i. An Act Providing for Commissioners of Boundaries, Bills and Laws folder, Hawaii State archives, June 26, 1862. e hoomaopopo i na palena o ua mau aina la, oiai e ola ana na kamaaina i ike i na iwi a me na palena o ua mau la. Traditional Boundaries can be known, since the natives of those places who know the boundaries of their lands are living.

⁴⁸ Kingdom of Hawai'i, 4 January 1848, Supreme Court Letter Book of Chief Justice Lee. All deeds issued contained the disclaimer, 'subject to the rights of native tenants.'

⁴⁹ Kingdom of Hawai'i. An Act Providing for Commissioners of Boundaries, Bills and Laws folder, Hawai'i State archives, August 23 1862. The entire law is also published in ka Nupepa Kū'oko'a on September 17 1862. This was a native language newspaper that published in the Hawaiian language.

⁵⁰ Kingdom of Hawai'i. An Act Providing for Commissioners of Boundaries, Bills and Laws folder, Hawaii State archives, June 26, 1862.

preserved for those who might be inheritors of the land. The last part of the above section, in Hawaiian and translated, reads

...i palapala ana no ia aina, e hoakaka ana i na palena Kahiko, a i ole ia, he palapala e hoakaka ana ka iwi kahi i pau ai kona aina.

...Lands will be mapped to make clear the *ancient ahupua'a* boundaries, or in some cases maps will be made to make clear *'iwi* [boundary of a land division smaller than an *ahupua'a*], at the place where one's land ends.⁵¹

The Bill goes on to state,

No transfer or conveyance of land, shall be legal, from and after four years after the passage of this Act, unless the boundaries of said land, are accurately defined, in the instrument transferring the land.⁵²

These sections show a clear and precise understanding of the importance of mapping and accurate survey in the new land and resource management system. Furthermore, assuming Prince Lot Kapuāiwa was not coerced, it may be said that the *ali'i* themselves had been involved in initiating the Hawaiian Kingdom's movement toward the use of mapping technology to aid in the new land management system, in order to retain Hawaiian control over the lands, and to preserve traditional knowledge of place. Hawaiian *ali'i* of Kapuāiwa's era were in the process of running the Hawaiian State, and in order to do this, they adapted to certain practices that Europeans may have regarded as 'civilized', such as mapping. In this process they incorporated many aspects of the land system and knowledge base that were of traditional origin, such as place names, the *konoiki* (traditional) resource system, and traditional *palena*. While Hawaiian *ali'i* may have been caught up in the process of becoming 'modern', they engaged in this process, in many cases, on their own terms.⁵³

Evidence to the inquiries of the Boundary Commission was often given in the Hawaiian language and only occasionally in English. One such testimony is that of Kahakuina given on November 22, 1873 (Fig. 2). Allan Pottage has noted that narrative descriptions by tenants were used as the basis of identification of land parcels in Great Britain at late as the last quarter of the nineteenth century.⁵⁴ Such narrative descriptions may be considered characteristic of a 'placial' type of description, to the extent that testimony relies on local knowledge of a tenant (or *Kama'aina* in the case of the Hawaiian Kingdom). While all Boundary Commission reports had to be based on natives' testimony, they also included the metes and bounds of a parcel as measured by compass and chain. Oftentimes, the surveys themselves would be conducted in Hawaiian, as in Fig. 3, in which one can note the word *Akau* (north) and *Hikina* (east). Occasionally Boundary Commission awards included paper maps to supplement the narrative description of the parcel, as was the case in the award for the *ahupua'a* of *Pa'auhau* shown in Fig. 4.

⁵¹ Kingdom of Hawai'i. An Act Providing for Commissioners of Boundaries (authors' translation).

⁵² Kingdom of Hawai'i. An Act Providing for Commissioners of Boundaries.

⁵³ The final version of the Act passed on the 23rd of August 1862 and contains the same intent as the passages quoted earlier.

⁵⁴ A. Pottage, *The measure of land* (note 36), 364.

Kahakuina K. Sworn.
 I was born at Waiaipuka but I do not know
 the date of my birth. I was old enough to carry
 food, at the building of Kiholo. I am a Kama-
 aina of Waiaipuka. Komokrag my father
 showed me the boundaries. I now live at
 Hinikahi adjoining Waiaipuka.
 A gulch, is the boundary at a gashory between
 Waiaipuka and Hinikahi, thence mark a
 up the center of the gulch to the land of
 Kiholo. The boundary is in the woods,
 and runs up the main gulch; the name of
 the gulch near the junction of Kiholo and
 Waiaipuka, is Ahilauli.
 BX^d

Decision
 Boundaries of Waiaipuka decided to be as
 given in evidence of this case. Certificate of
 Boundaries of Kiholo and Royal Patent of
 Kamae 1st and Makuakahiokiki.
 Notes of survey to be filed previous to Certificate of Boundaries
 being issued.

R. Lyman
Commissioner of Boundaries 3rd Feb. 1866.

For Certificate see
No 46 Folio 48, Deeds 1st v. No. 3.
For costs see same folio.

Fig. 2. Boundary Commission Testimony of Kahakuina for the Ahupua'a of Waiaipuka (modified). Hawai'i State Archives.

(Re)mapping the Hawaiian State

Land divisions and boundaries were established in Hawai'i many generations prior to the arrival of Europeans. Lands were bounded and defined in ways that made sense to the 'Ōiwi of old. What is commonly referred to as the 'ahupua'a system' is a result of the firm establishment of *palena*. Ali'i who accomplished the task of clearly bounding the land and defining the *palena* were often famed for their works, as was Mā'ilikūhāhi on O'ahu island. Fornander thus writes that

2. Akaw 41°00' Hikina 1,660 kapuai ma ka pulea o Puaihi; ma
ana ke kekawai;
3. Akaw 34°00' Hikina 5,420 kapuai ma Puaihi;
4. Akaw 27°00' Hikina 3,300 kapuai ma Puaihi;
5. Akaw 29°40' Hikina 3,730 kapuai ma Puaihi;
6. Akaw 13°00' Hikina 1,000 kapuai ma Puaihi;
7. Akaw 24°00' Hikina 2,850 kapuai ma Puaihi;
8. Akaw 56°00' Hikina 1,100 kapuai ma Puaihi;
9. Akaw 76°00' Hikina 1,950 kapuai ma Puaihi; hiki i
ka pulea Kulana o Keona ma ka awawa;
10. Akaw 66°30' Hikina 1,620 kapuai ma Puaihi; ma ka awawa
mohe ana ke alani a hiki i ke kihima
-kai o Ko Hanalei ana;
11. Akaw 66°55' Hikina 1,412 kapuai e mohe ana ke awawa
a holo iluna;
12. Akaw 73°55' Hikina 792 kapuai ma Puaihi ma ko
Hanalei ana ma.
13. Akaw 64°55' Hikina 1,452 kapuai
14. Akaw 63°30' Hikina 403 kapuai
15. Akaw 51°40' Hikina 627 kapuai
16. Akaw 59°00' Hikina 1,457 kapuai a hiki i ka alani ma
o Keheha Pūia;
17. Akaw 66°20' Hikina 356 kapuai e hōhi ana i ka alani;
18. Akaw 75°15' Hikina 2,874 kapuai ma Puaihi, e holo ana a
hiki i ka Pūia i Palihane a hiki
i ke kiki ma ka o ko Hanalei ana;
19. Akaw 19°30' Komohana 345 kapuai Palena ma ka o ko
Hanalei ana hiki i Puani;
20. Akaw 77°00' Hikina 760 kapuai ma Puani a hiki i ke
kiki ma ka o Keia ana;
21. Hea 11°00' Hikina 100 kapuai, ma ka pulea ma ka o
Keia ana, ma ka hiki e hui ai o Puani
ma Kaihooa;

Fig. 3. Boundary Commission Survey of Waiapuka (modified). Hawai'i State Archives.

He caused the island to be thoroughly surveyed, and boundaries between differing divisions and lands be definitely and permanently marked out, thus obviating future disputes between neighboring chiefs and landholders.⁵⁵

⁵⁵ A. Fornander, *Ancient History of the Hawaiian People to the Times of Kamehameha I*, Honolulu, 1996, 89.

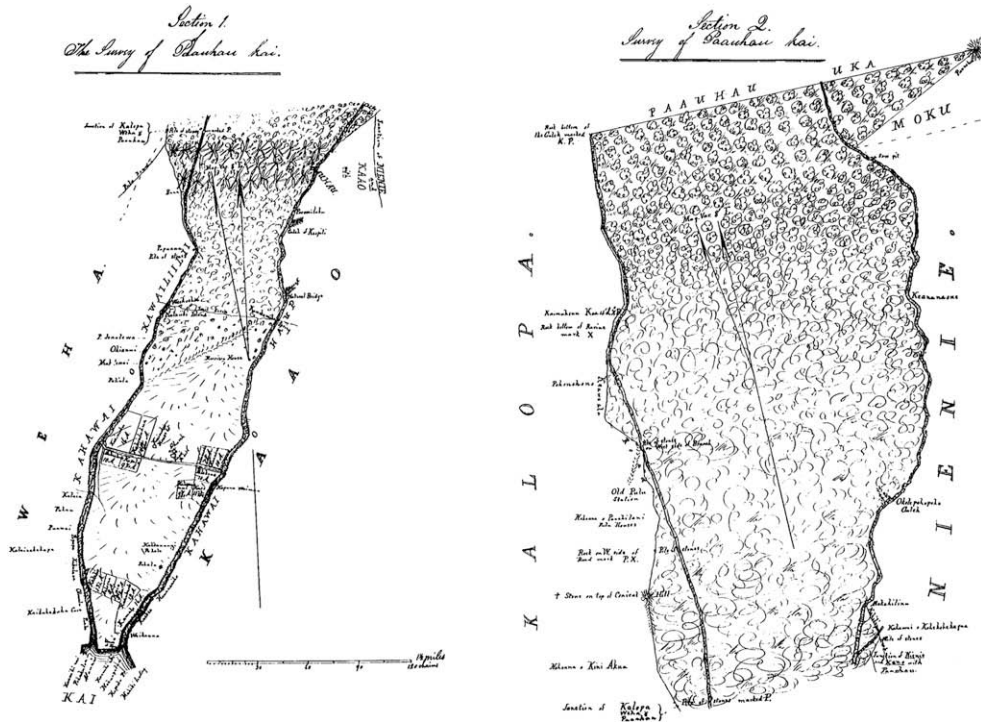


Fig. 4. Boundary Commission map of Pa'auhau kai (modified). Hawai'i State Archives.

Kamakau tells a similar story:

When the kingdom passed to Mā'ilikūkahī, the land divisions were in a state of confusion; the *ahupua'a*, the *kū*, the *'ili 'āina*, the *mo'o 'āina*, the *pauku 'āina*, and the *kīhāpai* were not clearly defined. Therefore Mā'ilikūkahī ordered the chiefs, *ali'i*, the lesser chiefs, *kaukau ali'i*, the warrior chiefs, *pū'ali ali'i*, and the overseers, *luna* to divided all of O'ahu into *moku*, *ahupua'a*, *'ili kupo*, *'ili 'āina*, and *mo'o 'āina*.⁵⁶

The establishment of *palena* on these divisions brought greater productivity to the lands, and was also a means of settling disputes of future *ali'i* who would be in control of the bounded lands. This indigenous system of land divisions and boundaries enabled a *konohiki* (land or resource manager) to know the limits of the resources to be managed. In the Boundary Commission awards there are numerous testimonies stating that the reason a person knew the *palena* of his/her *ahupua'a* was so they would not extend their resource gathering across their area and into an adjoining *ahupua'a*.⁵⁷

⁵⁶ S.M. Kamakau, *Tales and Traditions of the People of Old: Nā Mo'olelo A Ka Po'e Kahiko*, Honolulu, 1991, 53.

⁵⁷ Kingdom of Hawai'i. Boundary Commission 8 Ahupuaa of Malanahae, 19 April 1871; Boundary Commission Report Keauhou 2nd Kona, Island of Hawai'i, Volume A, No. 1: 256–272; Boundary Commission Ahupuaa of Waika District of North Kohala, Island of Hawai'i, Hawai'i Volume A, No. 1: 170–174.

Other testimony stated that *palena* were established because ‘In old times the people used to fight over cultivating grounds, and so we used to keep the run of the boundaries of our lands’.⁵⁸ This shows that certain resources contained within one’s *ahupua’a* would be bound by *palena*, and knowledge of these boundaries needed to be known for the system to function properly.

The surveys and maps produced during the Mahele and Boundary Commission era were some of Geography’s earliest encounters with Hawai‘i and its people. Mapping was applied to aid in the transition from the traditional *maoli* (native/true) system of land ‘tenure’ to that of fee-simple and leasehold ownership, as well as to record traditional knowledge of boundaries and places. The later 1870 Hawaiian government survey was headed by the Surveyor General of the Hawaiian Kingdom, W.D. Alexander. His account of the survey discusses methods of triangulation and the way in which areas were marked, noting that surveys were done in accordance with ancient place divisions such as *moku*, *ahupua’a*, and ‘*ili*’.⁵⁹

Hawaiian Kingdom surveys attempted to represent traditional *palena* in a form new to ‘Ōiwi maps, which previously were, in large part, based on an oral tradition of memorization and recitation. This contrasts greatly with some of the early surveys in the United States, such as those proposed by Thomas Jefferson, which were ‘aimed at securing the kind of yeoman society outlined by Crèvecoeur’,⁶⁰ in a manner that took no account of how the original inhabitants saw or possibly bounded the land. The checkerboard grid type of land survey that was prescribed by Jefferson was truly creating a sense of space designed to erase the sense of place as understood by the natives of those lands. The space to be created was one that would be ordered and come into existence through abstraction, an image of Cartesian order. Jefferson’s committee, appointed by the Continental Congress, initially proposed that public lands be divided into ‘hundreds of ten geographical miles square, and those again to be subdivided into lots of one mile square each, and to be numbered from 1 to 100, commencing in the northwestern corner, and continuing from west to east and from east to west consecutively’.⁶¹ The Act passed on May 20, 1785 ‘provided for townships 6 miles square, containing 36 sections of 1 mile squares’.⁶²

⁵⁸ Kingdom of Hawai‘i. Boundary Commission Ahupuaa of Waika District of North Kohala, Island of Hawai‘i, Hawaii Volume A, No. 1: 170–174.

⁵⁹ W.D. Alexander, *A Brief Account of the Hawaiian Government Survey, Its Objects, Methods and Results*, Honolulu, 1889. ‘The people of old gave names for the island’s different parts through their observing until their ideas became clear and precise, there are two names used on an island, *moku* is a name, *aina* is another name, lands that were separated by the sea were called *moku*, lands where people resided were called *moku*. The island (*moku* that is surrounded by water) is the main division, like, Hawai‘i, Maui and the rest of the island chain (Islands) were divided up into sections inside of the island, called *moku o loko*, like such places as Kona on Hawai‘i island, and Hana on Maui island, and such divisions on these islands. These sections were further divided into subdivision called ‘*okana*, or *kalana*; a *poko* is a subdivision of a ‘*okana*. These sections were further divided into smaller divisions called *Ahupua’a*, and sections smaller than an *Ahupua’a* were called ‘*ili* ‘*aina*. Divisions smaller than ‘*ili* ‘*aina* were *mo’o* ‘*aina* and *paukū* ‘*aina*, and smaller than a *paukū* ‘*aina* was a *kīhāpai*, at this section the smaller divisions would be multiple *Kō‘ele*, *Hakuone*, and *kuakua*’. D. Malo, *Ka Mo‘olelo Hawai‘i*, Honolulu, 1987, 14 (authors’ translation).

⁶⁰ D. Cosgrove, *Symbolic Formation and Symbolic Landscape*, Madison, 1984, 177.

⁶¹ *Manual of Surveying Instructions For the Survey Of The Public Lands Of the United States and Private Land Claims*, Washington: Government Printing Office, 1908, 5.

⁶² *Manual of Surveying Instructions* (note 61).

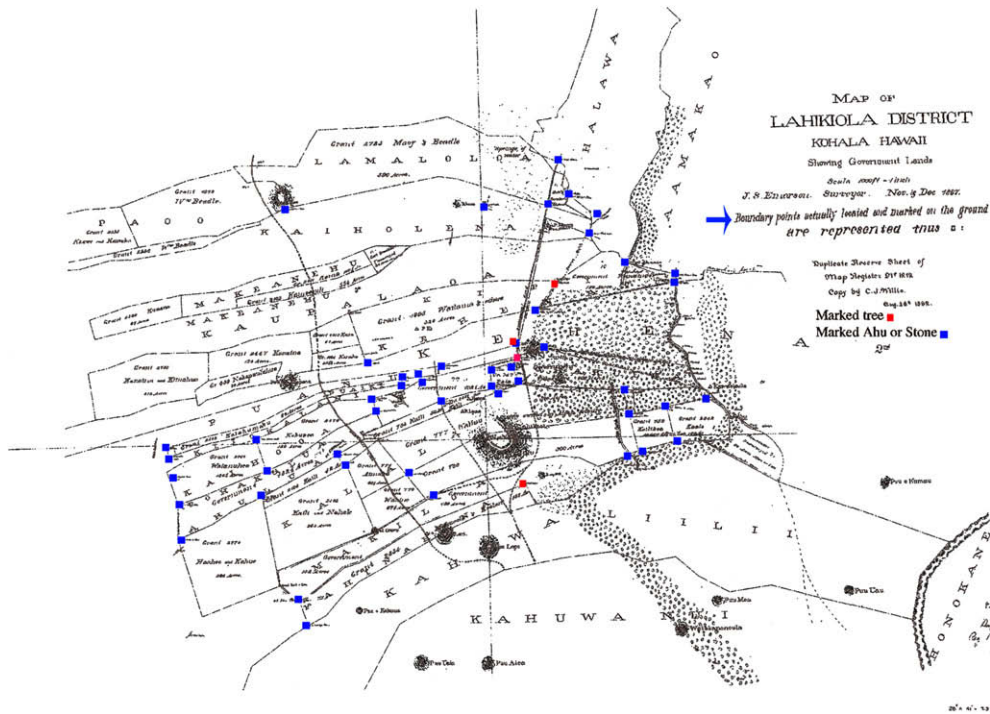


Fig. 5. Hawaiian Kingdom survey of Lahikiola (modified). Hawai'i State Survey Office. Registered Map #1212.

Carved from an empty slate, lands were often sold prior to the actual survey or to the land even being seen.⁶³

Although not a cadastral map, an exemplary case of colonial mapping is given by David Turnbull in the book *Maps are Territories*. Commenting on an 1827 map of Australia by European colonists, he writes,

This map of Australia relatively accurate in its costal profile is filled with imaginary mountain ranges, rivers, and deltas. Its place names, grid and topographical assumptions derive from European cultural conventions unrelated to the landscape depicted, a landscape which the Aborigines had already mapped in minute and reliable detail.⁶⁴

The map offered by Turnbull vividly illustrates an example of colonial mapping, where Colonists drew and named a land they considered empty, a 'Terra Nullius.' Colonists in America took a similar perspective as they 'drew their property lines on what they considered a blank slate, with little regard to those who had occupied the land before.'⁶⁵

⁶³ Price, *Dividing the Land* (note 6), 340.

⁶⁴ D. Turnbull, *Maps Are Territories, Science Is an Atlas*, Chicago, 1993, preface.

⁶⁵ Price, *Dividing the Land* (note 6), 11.

In contrast, surveyors in the Hawaiian Kingdom who were conducting Boundary Commission surveys were required to visit a site with a *kupa'āina* (long-time native resident) who understood the traditional boundaries of the *ahupua'a*, or at least had learned them from someone who did, so that the survey might reflect the traditional boundaries and markers. An 1879 Supreme Court case of the Hawaiian Kingdom dealing with the boundary of Pulehunui, thus found that the native testimony is the primary source of evidence in a land dispute where boundaries are a question:

it is apparent that no survey, even one founded on good information, can be anything more than secondary evidence when it has been proved to have been so founded, and can be no evidence in itself without proof that it is the expression of original kama'aina (native) direction.⁶⁶

In this system, it was the *kama'āina* (long-time native resident) and not the surveyor who understood the traditional *palena*, which were detailed and oftentimes quite precise.

The significance of existing Hawaiian knowledge of place names and place description is clear in the evidence presented to the Boundary Commission. One such testimony was given in the Boundary Commission report for Kapapala *ahupua'a*:

The boundary at the shore between Kaalaala and Kapapapala is at a hill or puulepo called Napuonaelemakule, thence mauka to Kukalaula a cave in the pahoe-hoe where people used to live. The boundary follows an old trail all the way from the seashore. Thence the boundary runs to Keanaonaluahine aa and a cave in the pahoe-hoe, thence to Puuahi two hills and two ahus running between the hills. Thence to Kapai an awaawa and cave. Thence to Puulehuopaniu, on pahoe-hoe, thence to a hill of rocks called Punahaha, along a road to where the Kukuilauiiili used to stand; thence along Puukoa to Kapaliokkee along Makakupa to Moomani a heiau and ahi pu. Thence along Puukoa to Kapaliokkee ili aina and awaawa. Thence along Pohakuloa to Puuokamalii as the government road on the edge of the pahoe-hoe towards Hilo, thence to Naunu the mauka corner of Pohakuloa the lae ohia on the pali, thence along Ahualiilii to Kaholoina kauhale mamake and kahawai.⁶⁷

Some maps of the Hawaiian Kingdom codify boundary markers that were actually located on the ground. One such map was done by the surveyor Emerson and later traced by Wilste in North Kohala. Registered map number 1212 in the Hawai'i state survey office, a map of Lāhikiola district of North Kohala, lists the actual *ahu* (stone cairns) that are on the ground and are marked on the map. The map clearly shows the complex boundaries that existed at the time of its creation. This is significant because it is an example of how traditional boundaries or *palena* (often times marked by *ahu*) were transferred into the original surveys at the time, confirming the hybrid character of the resultant maps. The blue squares represent either *ahu* or stone boundaries and the red squares represent tree boundaries. *Ahupua'a* such as 'A'amakāō and Hālawa have *ahu* that mark their upland *palena* (Fig. 5).

⁶⁶ Hawaiian Kingdom Supreme Court: Boundaries of Pulehunui 4 Haw. 239 (1879).

⁶⁷ Boundary Commission Ahupua'a of Kapapala, Island of Hawai'i Volume A, No.1.

Conclusions

Focusing on mapping, surveying and governance, this paper asks whether ‘Ōiwi could adapt and use a tool that was not of native origin while nonetheless maintaining their identity. This question echoes down the ages, from the events leading up to the establishment of the Hawaiian State and through to the reality of Hawai‘i and its native people today. The writing and publishing of laws in the native language, the appearance of these laws in native language newspapers, the translation of *palena* from specific points on the ground to lines on a map: are these attempts of a subjugated people to speak back at those others controlling and bounding them? Are they acts of indigenous agency?

The unfortunate history of the mapping the lands of native peoples, as well as the wider implications of those mapping activities, has received considerable attention in much post-colonial geographical scholarship. The racial and inhumane overtones of concepts such as *terra nullius* and its history of being used to bound native peoples are well established. One can only speculate on what the maps of the world would look like today if native peoples had been able to utilize mapping tools on their own terms, prior to their imposition by colonizers. In this paper, we have been concerned with a highly specific socio-political and cultural context, that of the Hawaiian Kingdom. We have asked whether maps were used to aid the process of colonization or, on the contrary, to enable its resistance, an example of the role indigenous agency in the mapping of Hawai‘i. Answers to such questions clearly require further research.

Many modern maps of Hawai‘i still reflect traditional boundaries and the names associated with these places. This is largely due to the events that took place during the early years of mapping in the Hawaiian Kingdom. Even USGS topographic quads of the Hawaiian islands often include ahupua‘a boundaries.⁶⁸ The *ali‘i* chose to map out their lands in accordance to their traditional system of bounding the land, rather than a theoretical grid system such as the one created by the committee chaired by Jefferson in America. We recognize, however, that very the act of transferring knowledge of traditional boundaries to paper, previously memorized and transmitted via oral tradition, may have had unanticipated effects on that knowledge.

Can the ‘Western’ system of mapping faithfully reflect a Hawaiian indigenous worldview? Clearly a portion of that worldview was preserved through the efforts of Hawaiian *ali‘i*, notwithstanding the subsequent overthrow of the Hawaiian Kingdom with the aid of U.S. officials. The work of S.P. Kalama and Lot Kapuāiwa in the production of maps for the Kingdom of Hawai‘i might be compared to Kamehameha’s investment in a fleet of ‘Western’ type warships or Kalākaua’s enthusiasm for his electric palace. On the surface, these were Western technologies; but as adapted and implemented, they also reflected a distinctively Hawaiian experience, providing a healthy counterpoint to assumptions of ‘Ōiwi passivity in the face of Western modernity. The adaptation of Western concepts and tools by Hawaiians suggests that further attention should be given to native agency within the context of Euro-American imperialisms. This paper has provided one attempt to open up these questions in a very specific context, and there is clearly

⁶⁸ Although USGS quads often include ahupua‘a boundaries, their accuracy is at times questionable and their origin is difficult to trace.

much more work to do. What is clear is that the actions of men like S.P. Kalama preserved a critical part of the *mo'olelo* (history) of the Hawaiian people.

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