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Hulihia: Learning from the *kauhale* in times of transformation

Indigenous architecture across the Pacific is increasingly theorised as relational spatial systems grounded in cosmology, environmental knowledge, and community governance. Within *Kānaka Maoli* (Native Hawaiian) knowledge systems, architecture operates through the interconnectedness of people, land, and more-than-human ecologies. Here, dwelling is a practice of caring for *‘āina*—land understood as that which feeds. In this context, the *hale* (house) reflects a design process centred on *aloha* as relational practice; it is a manifestation of cosmogony and mana rather than a mere structure. The *kauhale* (housing compound or village) extends this logic into territorial planning. Rather than treating buildings as isolated objects, the *kauhale* represents “buildings in the landscape”—an architectural system that embeds communities within ecological systems of reciprocity. This orientation aligns with grounded normativity, where ethical frameworks for generational abundance emerge from everyday land-based practices.¹

While traditional forms of the *hale pili* (pili grass thatch house) come to mind in relation to the Indigenous architecture of Hawai‘i, this article examines how patterns of Indigenous spatial knowledge persist through periods of disruption, supporting the cultural evolution of communities. The focus of the article is the relation of the *hale*, the *kauhale*, and the *ahupua‘a* (land division). Before the nineteenth century *hulihia* (turning), *‘āina* was kin, not property.² The 1848 Māhele disrupted the kin relation, reclassifying land as a commodity that could be taxed and sold;³ of roughly 13,500 claims filed by commoner Hawaiians, only a fraction resulted in *kuleana* awards. The 1893 overthrow and 1898 annexation transferred a further 1.8 million acres of land to the United States without compensation to *Kānaka Maoli*. Hawai‘i’s housing crisis has never recovered from this rupture; median home prices on O‘ahu now exceed USD \$1,000,000 and dispossession continues to push *Kānaka Maoli* into diaspora.⁴ This history, developed more fully below in the Great Hulihia, and the separation of kinship relations (human-environment-more than human) led to cascading socio-environmental issues across *Pae ‘Āina o Hawai‘i* (Hawaiian archipelago) that continue to reverberate today.

This article argues that *Kānaka Maoli* spatial intelligence—embodied in the *hale*, *kauhale*, and *ahupua‘a* relations—is a living, adaptive system that has

persisted across *hulihia*. The architectural manifestations of these knowledge systems evolve, reflecting outside influence across time as well as contributing to Indigenous architectural futurities. The colonial gaze has fixated us with Indigenous architecture as a form of traditional architecture—an artefact of the forgotten past, which is reinforced within Appendix X: Hawaiian Provisions for Indigenous Hawaiian Architecture Structures in the Hawaii State Building Code. The article activates *mo'okū'auhau*⁵ methodology to examine the history of transformation in Kalihi-Palama, drawing on the *takarangi* spiral to conceptualise connections across time and space.⁶ Building on the growing body of work on Indigenous built environments, this article illustrates how these systems continue to inform the production of the built environment as well as support Indigenous resurgence, demonstrating that this persistence offers a necessary foundation for reframing housing as a relationship rather than a commodity.

Indigenous intelligence

This article argues that the *hale* persists as an Indigenous architectural intelligence that remains operative across historical and political transformations. Despite the disruptions of settler colonialism, Indigenous “pattern languages” continue to function through adaptive and hybridised forms.⁷ Recognising this continuity offers critical insight for contemporary housing governance and building regulation in Hawai'i. The lens for understanding Indigenous architectural intelligence is informed by the developing literature on Indigenous architecture and planning.

In *Reclaiming Indigenous Planning*, Indigenous planning is established as a field grounded in Indigenous governance, relational onto-epistemologies, and community-led spatial production.⁸ Hirini Matunga and Ted Jojola provide models for Indigenous planning guidelines based on Indigenous systems of knowledge and values. Matunga builds upon his Indigenous planning framework to discuss Indigenous architecture as a narrative-based process that derives meaning through the genealogy and significance of place; it is where Indigenous socio-cultural values and principles manifest in spatial and structural form.⁹ Scholars such as Chris Cornelius,¹⁰ Wanda Dalla Costa,¹¹ and Patrick Stewart¹² further demonstrate how Indigenous design principles function as methodological, pedagogical, and material practices. Cornelius's decolonising site-planning, Dalla Costa's design frameworks for Indigenous futurity, and Stewart's village-based pedagogy are not interchangeable gestures, but distinct methodologies. Across the Pacific, Albert Refiti,¹³ Jade Kake,¹⁴ Charmaine 'Ilaiū Talei,¹⁵ and Sean Connelly¹⁶ have highlighted how Pacific architectures utilise relational ontologies, such as *vā* (relational space), siting, and environmental integration. While general models and frameworks for Indigenous architecture, planning, and design are presented by scholars, they are translational pieces. In all cases, it is important to acknowledge that Indigenous communities are not a monolithic, and Indigenous architecture requires specificity.

Collectively these bodies of work position Indigenous architecture as living knowledge systems—that refuse the confines of coloniality. *The Handbook of Contemporary Indigenous Architecture*,¹⁷ *Our Voices* series,¹⁸ *Decolonising the Built Environment*,¹⁹ and *Land Back*,²⁰ along with the literature already introduced, represent a growing body of Indigenous and decolonial scholarship that reflects

the trans-Indigenous intellectual development of a unique body of knowledge, reading across distinct Indigenous architectural traditions. Rather than framing the literature as an Indigenous-settler binary that structures most comparative or transnational frameworks, as seen in architectural history studies, we need to frame Indigenous architecture studies through “purposeful Indigenous juxtaposition”²¹—a methodology Allen Chadwick extends to Indigenous technologies and built environments.²²

Indigenous architecture is not a restricted subset of architectural studies, but, following the concept of refusal,²³ a deliberate rejection of the disciplinary terms through which architecture has historically recognised, and thereby contained, Indigenous building practice. This refusal has a precedent outside architecture. American Indian literary studies broke from literary history to claim its own field,²⁴ offering a model for what Indigenous architecture might yet become. Indigenous cosmologies are frameworks of interpretation in their own right rather than content interpreted through Western theory.²⁵ For Indigenous architecture and spatial practices, the recent publication, *Vā Moana*, begins to do this work within the context of the Pacific.²⁶ Rather than situating this article within architecture histories or the study of traditional built environments, I situate it within the field of Indigenous architecture, utilising *mo’okū’auhau* as method.

This article extends the discourse through an analysis of *Kānaka Maoli* housing across three periods: 1) pre-contact and early historic settlement patterns, 2) settler colonial transformations of land and governance, and 3) contemporary expressions of Indigenous housing, including *kauhale* initiatives and emerging regulatory adaptations like ‘*ohana*’ dwelling provisions.²⁷ Building on Dalla Costa’s framing of Indigenous futurity,²⁸ I argue that this architectural intelligence persists and provides guidance in the development of urban futures supportive of Hawaiian values. In neighbourhoods like Kalihi, Honolulu, Indigenous spatial logic persists through layered adaptations shaped by labour histories and shared survival strategies, challenging extractive, technocratic paradigms by repositioning spatial production as an ecological practice grounded in intergenerational responsibility.

To synthesise: an Indigenous design process is a land-based practice of spatial production emerging from lived relationships. Matunga identifies seven key conditions of this process, four of which are particularly salient:

- Genealogy and Archetype: connection to ancestral forms;
- Axiology and Cosmology: structural articulations of values and origins;
- Responsiveness: addressing specific Indigenous needs and place-based narratives;
- Inherent meaning: purpose beyond utility.²⁹

These processes are iterative and intergenerational, integrating oral histories, *huaka’i* (journeying), and ceremonial practice. In contemporary Hawai’i, this intelligence informs housing futures by intersecting with immigrant and diasporic dwelling practices to produce inclusive urban spaces. Ultimately, the *hale* and *kauhale* are reframed here as active intelligences shaping equitable relational futures.

Methodology: Relational positionality and *mo'okū'auhau*

As a *Kanaka Ōiwi* (of Native Hawaiian descent) researcher, my methodology is shaped by relational responsibilities to land, community, and ancestral knowledge systems. My relationship to Kalihi is familial; my father and his siblings were raised in the Kapālama 'camps' between the 1930s and 1950s. Following the 1950s urban renewal and the demolition of camp housing for the H-1 freeway, my family navigated a transition to multi-family apartments before eventually relocating further upland in Kalihi Valley. These intergenerational experiences frame Kalihi as a layered socio-spatial landscape shaped by plantation labour, migration, and community adaptation. The research utilises *mo'okū'auhau* methodology,³⁰ guided by the *'Olelo No'eau: I ka wā ma mua, ka wā ma hope*, or walking through the past into the future.³¹ This framework allows for the analysis of *Kānaka* housing not as a series of static events, but as a continuous evolution of spatial intelligence.

To examine the continuity of Indigenous architectural intelligence, this study employs a tripartite research design that reads historical record, oral accounts, and contemporary practices as a single, continuous socio-spatial field. The archival component draws from Māhele 'Āina testimony, land records, and archival documentation of traditional settlements. These documents often reflect a colonial framing of history and require decoding through Indigenous spatial epistemologies. Concepts such as *he ali'i ka 'Āina, he kauwā ke Kānaka*, which positions the land as chief and the people as servants, provide the analytical lens to interpret meaning within these administrative documents. Further interpretations are informed by the *Kumulipo* (well-known genealogical chant) to ground analysis in a cosmogenic understanding of space³² and the work of Mary Pukui.³³

Contemporary spatial analysis focuses on living examples of land-based revitalisation, specifically focusing on organisations such as Ho'oulu 'Āina in Kalihi. By engaging with contemporary land restoration and food sovereignty initiatives, this study identifies the relational design principles that inform modern Indigenous building codes and alternative housing models. These contemporary examples are understood not as isolated case studies, but as part of a longer continuum of Indigenous spatial practice. Through this combined approach, Kalihi is analysed as a transitional spatial field where Indigenous, immigrant, and diasporic practices co-produce forms of relational urban dwelling, reframing the *hale* and *kauhale* as enduring socio-spatial intelligences.

Early historical context: Land, settlement, and spatial transformation in Hawai'i

Kānaka Maoli spatial systems developed through deeply relational understandings of *'āina*, *wai* (water), and social organisation. Prior to Western contact, settlement was organised through the *ahupua'a* system—a watershed-based model extending from mountain to sea that structured land management and food production according to ecology. The *ahupua'a* was first introduced on O'ahu in the fifteenth century by the *ali'i nui* (high chief), Mā'ilikūhahi. The *ahupua'a* represents the self-sustaining land units running from mountain to sea in which resources are distributed equitably and stewarded through reciprocal responsibility. Within this framework, the *kauhale* functioned as multigenerational socio-spatial compounds that integrated dwelling, ceremony, and

environmental stewardship. Spatial organisation was informed by environmental knowledge, seasonal cycles, and social relationships, reinforcing reciprocal obligations between people and *‘āina*.

The moku and ahupua‘a system

The *moku* (district) and *ahupua‘a* functioned as an integrated socio-ecological framework, recognising the interconnections between climate zones.³⁴ The *ahupua‘a* is the system of land governance developed for the unique ecological system of Hawai‘i. Under this system of land governance: *maka‘āinana* (stewards of the land) cultivated the land and offered *ho‘okupu* (offering, tribute) to the *akua* (gods) and *ali‘i* (chief); and *ali‘i* maintained *pono* (righteous balance) in society or were removed by the *kama‘ainana* (people of the land). *Konohiki* (land managers, planners) drew on generational ecological knowledge to regulate water, harvest, and resources use through *kapu* (natural law, sacred) and *kanawai* (law, code).³⁵ Their knowledge combined empirical observation with cultural values and spiritual understanding—what we might today call a systems-based approach to resource management.³⁶

Each *ahupua‘a* contained resources vital for community substance across four primary realms:

- *Wao Akua* (realm of the gods): Upper mountain forests reserved for limited human activity. Realm connected to water collection from the sky into the natural aquifers;
- *Wao Nahele* (forested region): Managed forests providing timber, medicinal plants, and bird feathers;
- *Wao Kānaka* (human realm): Mid-elevation zones for agricultural terraces and settlements;
- *Kai* (sea): Marine ecosystems including fishponds and reefs.

A significant feature was sophisticated water management, where *‘auwai* (irrigation channels) directed water through *lo‘i kalo* (taro terraces) to maximise nutrient distribution. This water eventually reached *loko i‘a* (fishponds), supporting an aquaculture food chain. This integrated system recognised *wai* as the foundation for wealth (*waiwai*), and utilised nutrient cycling as an early example of circular economy principles.³⁷

Kauhale: The architecture of relation

The *kauhale* represents the architectural manifestation of Hawaiian social organisation. Rather than a single building, it consisted of multiple specialised structures, including the *hale mua* (men’s meeting house), *hale noa* (sleeping house), *hale ‘āina* (women’s eating house), *hale pe‘a* (menstruation house), *hale kuku* (kapa house), and *hālau wa‘a* (canoe house or workspace). These were arranged with careful attention to prevailing winds, solar orientation, and functional relationships (see Fig. 1 for illustration of *kauhale*). Siting was conducted by the *kuhikuhipu‘uone* (master builder, geomancer, architect).

O ke kahua mamua, mahope ke kūkulu.

Site first, then the building. Learn all you can, then practice.

‘Ōlelo No‘eau #24538

Daily life in the *kauhale* followed a diurnal rhythm of collective labour and ritual, governed by *kapu*. Gendered labour and communal life interwove throughout the day. Men tended upland *lo‘i* or fishing, women produced *kapa* (cloth) or gathered near-shore resources, and children and elders occupied the in-between spaces, playing and teaching. Spatial permeability meant the home was not a single building but the relationships between structures and the land. In regions like Ka‘u and Puna on Hawai‘i Island, dwellings were built on old lava beds to preserve tillable soil, a clear indicator of an Indigenous conservation ethic that prioritised long-term food security over convenience (see Fig. 2 for the location of Ka‘u and Puna). The *kauhale* reflected village life on the islands.

Traditional *hale* construction utilised a post-and-beam framework lashed with cordage made from *olonā* (a native shrub) or coconut fibre, its posts seated within or atop rock walls depending on the builders’ genealogy—a design able to withstand hurricane-force winds by dissipating energy. *Hale* lashing, adapted from *wa‘a* (seafaring canoe) construction, developed over time for land-based use.³⁹

The main structural elements included the *pou hana* (main posts), *kauhuhu* (ridge pole), *lohelau* (cross beams), *o‘a* (rafters), and *aho* (purlins). Thatching materials varied by location and available resources, including *pili* grass, *ti* leaf, sugar cane leaves, or *pandanus*. Material choices adapted to local microclimates, and the construction process itself was communal, reinforcing social

Fig. 1 Illustration of a *kauhale*: 1) *hale noa* (dwelling house); 2) *hale ‘āina* (women’s eating house); 3) *hale mua* (men’s eating house); 4) *hale papa‘a* (food storage house); 5) *hale pe‘a* (menstrual house); 6) *hale kuku* (storage house for *kapa* making); 7) *hālau wa‘a* (canoe house); 8) *‘imu* (earth oven—food for women and food for men are cooked on separate fires); 9) *lo‘i kalo* (taro patches fed by *‘auwai*); 10) *wa‘a* (outrigger canoe); 11) *mai‘a* (banana grove); 12) *kahua kapa* (women’s workyard); 13) *kō* (sugarcane); 14) *pā pōhaku* (low stone wall); 15) *loko i‘a* (fishpond); 16) *kahawai* (stream) [Drawing: James Miller]

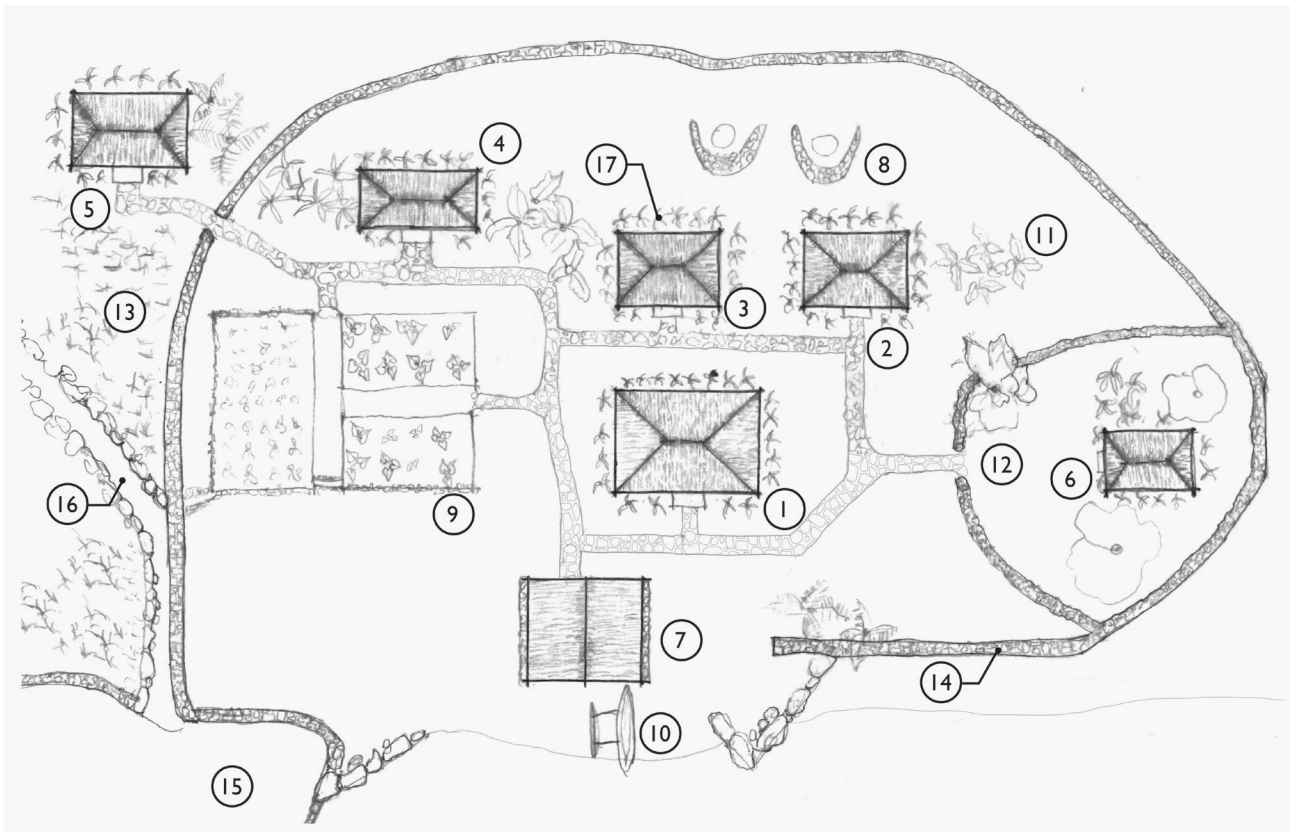
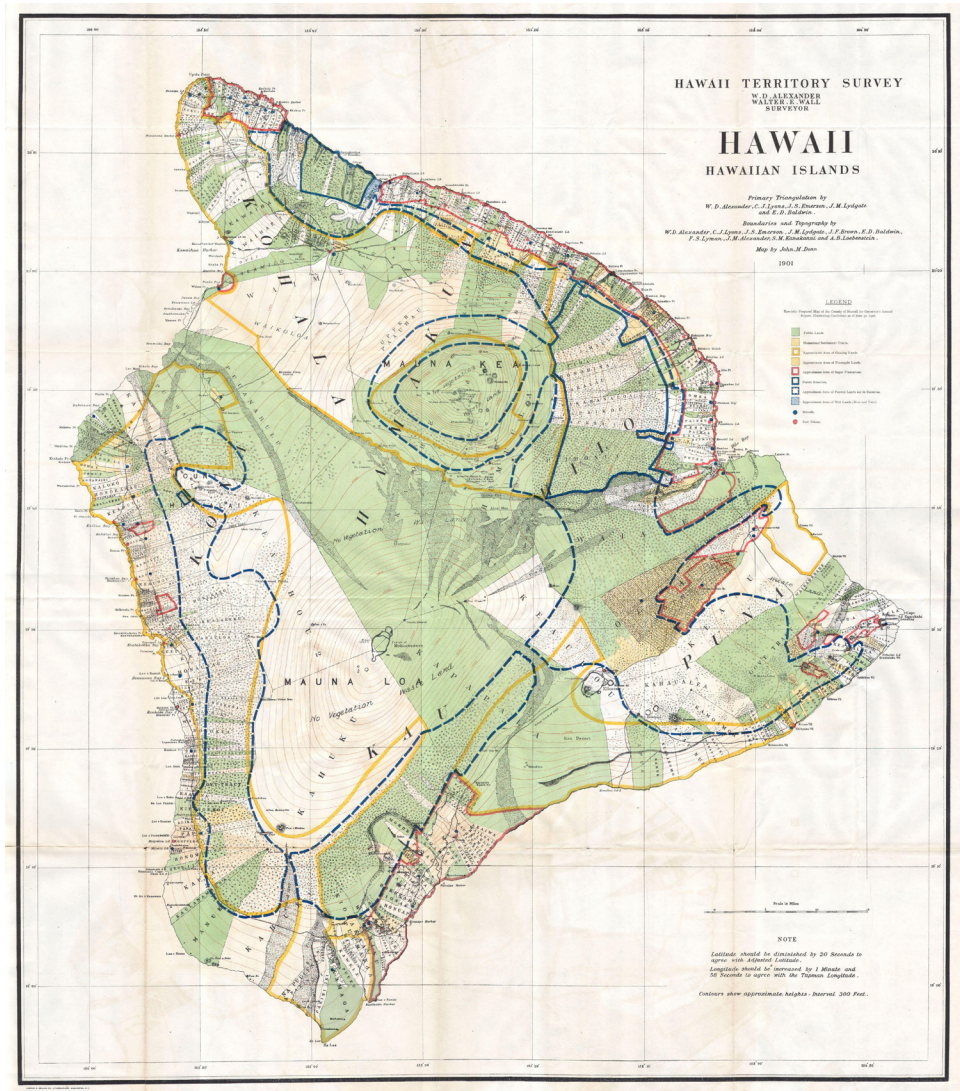


Fig. 2 John M. Donn. Map of Hawai'i Island, 190 [Map: Hawaii Land Survey Registered Maps #2124; public domain]



bonds while transferring knowledge between generations. The *hale* in Fig. 3 reflects the contemporary building practice of *hale*, which was revived by Francis Sinenci and codified within Appendix X402.1 Indigenous Hawaiian Architecture Structures of the Hawaii State Building Code.

Boundaries in Hawaiian architecture marked sites of transformation; the threshold, guarded by the *akua Kane hohoio*, was sacred and could not be sat or stood upon.⁴⁰ The *hale* itself was considered a living entity: upon completion, a consecration ceremony (*pule ho'ola'a hale*) invoked *'aumakua* (family ancestors) and prepared offerings, marking the house's birth as a living presence and establishing its spiritual protection.

E 'oki I ka piko o ka hale⁴¹
Cut is the navel cord of the house

Hawaiian dwellings were not simply shelters but manifestations of Hawaiian cosmogony.⁴² The *kauhale* reflected *'ohana's* filial relationships to place and land. Read trans-Indigenously, rather than as one instance of a universal vernacular pattern, the *kauhale's* treatment of dwelling as cosmological kin finds a

Fig. 3 The interior of a *hale pili* at Ho'oulu 'Āina [Photograph: James Miller, 2019]



counterpart in the Palu'e house of Indonesia, where dwellings are likewise treated as living, cosmological entities.⁴³

The Great Hulihia: Land dispossession and the Māhele Act

Before the Great *Hulihia* of the nineteenth century, the concept of private property did not exist. In the Hawaiian worldview, the land was kin. The first child of Papahānomoku (earth mother) and Wākea (sky father) was a stillborn babe, Hāloa, who was planted into the ground and became the *kalo* (taro) plant, elder sibling to the first *Kanaka*. 'Āina means that which feeds and 'ohana (family), the branching of the 'oha (corm of the taro plant). Land and people are kin who live in relation. 'Ohana expands beyond blood kin, shaped by values of *aloha*; it is reflected in multigenerational housing and the permeability between households.⁴⁴ 'Ohana reflects a housing practice reflective of *ahupua'a* and *kauhale* systems.

Facing pressure from foreign resource interests, Kamehameha III and his missionary-turned-advisor, William Richards,⁴⁵ initiated the Māhele Act in 1848.⁴⁶ Under the 1839 Hawaiian Declaration of Rights, natural and property rights for commoners and chiefs alike were established, paving the way for land privatisation; the Māhele Act reclassified 'āina as a commodity that could be taxed and sold.⁴⁷

The intent behind the Māhele remains highly contested. For some, including Kamana Beamer, it was Kamehameha III's effort to secure the Kingdom's perpetuation for *ali'i* and *maka'āinana* alike against the incursion of foreign interests and

power.⁴⁸ For others, Kauikeaouli put a price tag on a relative and succumbed to the influence of Western thought. Many other Hawaiian scholars continue to debate the complex nature of the Māhele.⁴⁹ This debate matters because of what unfolded in its wake. While several colonised Pacific nations underwent comparable land reforms in this period, and still hold a majority of their land under customary tenure systems, Hawai‘i’s trajectory diverged after the Māhele.

The Māhele divided lands among the monarchy (Crown Lands), the government (Government Lands), the *ali‘i* (Konohiki Lands), and the *maka‘āinana* through the Kuleana Act of 1850. While intended to secure native land rights, it had devastating consequences for most *Kānaka Maoli*, resulting in a fraction of awards secured by commoners.⁵⁰ Even so, these lands remained, at least nominally, within Hawaiian governance. It was the 1893 overthrow⁵¹ and the 1898 annexation’s uncompensated transfer of Crown and Government lands to the United States, not the Māhele’s reclassification of land, that foreclosed any future Hawaiian government’s capacity to legislate a return to collective or customary tenure. In comparison, Sāmoa recovered Indigenous land majorities upon their own independence.⁵² This disparity has compounded the housing crisis ever since.⁵³

Prince Jonah Kūhiō Kalaniana‘ole championed the Hawaiian Homes Commission Act (HHCA) of 1921, setting aside roughly 200,000 acres for homesteading by Hawaiians of 50 per cent or more blood quantum, an act modelled after the Dawes Act. Divisive blood-quantum requirements, poor quality land, and chronic underfunding left over 28,000 *Kānaka* on the waitlist today. When Hawai‘i became a state in 1959, the Admission Act placed ceded lands in trust for the betterment of Native Hawaiians under the Office of Hawaiian Affairs, a responsibility the state has repeatedly failed to uphold. For *Kānaka* and residents of Hawai‘i, this is the history from which today’s housing crisis descends.

Weaving the past into the future

While historical understanding of *ahupua‘a* and *kauhale* systems provides valuable insights, the critical question remains: How can these Indigenous approaches be meaningfully applied in contemporary housing developments in Hawai‘i? The testimonies from the Māhele Act are abundant with descriptions of horticulture and landscape practices. In Waikapu Maui, on Lahuapueo, where my *‘ohana* stems, canoe plants such as *‘ulu* (breadfruit), *kalo*, and *hala* (pandanus) were common, and Land Claims Registry records show *lo‘i kalo* and multi-dwelling parcels throughout Lahaina and Waikapū. A story of *kauhale* dwelling is evident.

“Kapaoakua is the name of the land, Apeke is the claim, with two houses, two kukui trees, two coconut trees, one breadfruit tree, three *lo‘i*, two *mo‘o*. Those are my claims which are stated to you, the Land Commissioners, which I occupy in Lahaina.”⁵⁴

As late as 1934, Craighill Handy and Mary Kawena Pukui documented at least five *kauhale* surrounded by *lo‘i* in Lahaina.⁵⁵ Today, the same canoe plants continue to be planted around parcels, particularly among Native Hawaiian and other Pacific Peoples, and multigenerational habitation persists, supported by the *‘ohana* dwelling code.⁵⁶

Fig. 4 A house in Kalihi with gardens. A banana grove, *olena* (turmeric), papaya, ti trees, and more can be seen [Photograph: James Miller]



As Hawaiian family members moved from *kauhale* and their homeland, descendants experience diminished feelings of belonging and bonding to the old *kauhale*. George Kanahele refers to this as the trauma of rootlessness—a diminished sense of connection to *‘āina* and to the family’s *kuleana* lands.⁵⁷ Yet these connections are rarely lost outright, only hidden: the knowledge of place travels with people, negotiating placemaking within new spaces like the multi-ethnic neighbourhoods of Kalihi. That *kuleana* carries through socio-spatial practices like having an *‘imu* and sharing food together. As Shawn Malia Kana’iaupuni and Nolan Malone remind us, the land calls us: “The voices call to the spirit, to the body, to the memory of cells and DNA—for the undeniable link is genealogical: ‘Our mother is our land, Papahānaumoku, she who births the islands’.”⁵⁸

Kalihi: A place of transition in a settler colonial city

Kalihi is where the persistence of Indigenous spatial intelligence can be traced through transformations across the twentieth century; spatial intelligence adapts rather than disappears. Known for the Kilikilihune (fine light) rain and the guardian *mo’o*, Wahinehi‘u‘ia (fishtailed fern woman), Kalihi historically held a deep connection to the flow of water and to marine and terrestrial ecological systems. Over the twentieth century, however, Kalihi became a place of transition. What was once a neighbourhood of middle- and upper-class *Kānaka Maoli* in the early 1900s became a multicultural, working-class home for Chinese, Portuguese, Japanese, and Puerto Rican families leaving the rural plantations, followed by Sāmoans, Koreans, and Filipinos.⁵⁹ By the 1920s, Japanese residents alone comprised over 40 per cent of the territory’s population, many settling in urban peripheries like Kalihi; *kalo* patches persisted into the 1930s, reflecting a continuity of land-relations. But as the political economy of Hawai‘i shifted under American colonial pressure, so did the spatial and human relations of the district.

Epistemological rupture

As discussed above, the colonial property regime ushered in by the *Māhele* introduced a spatial logic fundamentally incongruous with Hawaiian society: land as filial relation was violently supplanted by land as transposable commodity.⁶⁰ Indigenous settlement patterns like the *kauhale* and the *ahupua'a* were fractured by the gridlines of private property. This incongruity was not incidental, as Jodi Byrd argues, Indigenous critiques of colonialism must reckon with how settler juridical and economic categories were built to make Indigenous land relations illegible on their own terms, not merely different from them.⁶¹ Read alongside Audra Simpson's concept of refusal,⁶² what follows in the Kapālama camp is a refusal of the terms of legibility that settler property law imposed, holding fast to relations. This colonial framework sought to obliterate what Māori call *whanaungatanga*—the deep, almost mycelial connections at the essence of Pacific identity, splitting apart what had existed in sacred accord: *honua* (place), *‘ohana*, and *mo‘okū‘auhau*.

Our family grew up in the shock waves of this exploded worldview... the race was on for the taking apart of all facets of Hawaiian identity to make room for capitalism—the land, the language, and then the culture. We lost sight of our ways of being human together...⁶³

Fig. 5 Sanborn maps depicting the camps (labelled tenements) along Robello Lane adjacent to Ka‘iulani Elementary School in Kalihi-Palama. Left: 1914 Sanborn map. Right: A 1955 reprint of the 1927 Sanborn Map [Sheet 015 (1914) and Sheet 145 (1927), Insurance Maps of Honolulu, Oahu, Territory of Hawaii, Sanborn Map Company, <http://hdl.handle.net/10524/55041>; <http://hdl.loc.gov/loc.gmd/g4384hm.g01537195501>].



Life in Sumiyoshi Camp

My father and his siblings grew up in the camps of Kapālama along Robello Lane, on land owned by Mr Sumiyoshi and adjacent Ka‘iulani Elementary School. The Sanborn Maps in Fig. 5 depict the densely populated parcels of the area. While the homes were simple, shared infrastructure provided communal anchors that naturally wove diverse families together.

We all used a couple of common bath houses heated by wood. One... had a real wooden *furo* you could go into. The other... had a metal and concrete tub... we would just take some of the water out with a pot to take a bath since the tub was too hot... Actually some of the older Japanese women used to cook on *hibachis* outside one of the *furios* and I can still remember how good the grilled fish smelled... The *Lonoaeas* used to also dry squid hung on lines outside their house.⁶⁴

Resource use was circular and intimate. Japanese and *Kānaka* fisherman alike brought back the day's catch, prepared it over the *furo* fire or dried it, and shared it. Life in the camp was punctuated by seasonal, culturally distinct events witnessed by the entire neighbourhood, temporarily transforming shared spaces into stages for cultural continuity.

The Japanese men, Mr Murakami and Sumiyoshi... would pound mochi with a large stone mortar, while women flipped the rice between poundings, sometimes singing Japanese songs... The *Lonoaeas* dug a big '*imu* to roast the pig the traditional *Kānaka* way... Across from Robello Lane there was a Japanese temple... every late summer or early fall a lot of the neighbourhood gathered for traditional Japanese and Okinawan dancing... I loved the music—the drumming, *shamisen*, and Japanese flutes.⁶⁵

Within the ruptured landscape of Kalihi-Palama, known for the Kilikilihune and Wahinehi'u'ia, new forms of collective community emerged.

The socio-spatial dialectic of transition

The camps' socio-spatial relations echoed the traditional *kauhale* and the life lived in-between buildings. In both, spaces were functionally dispersed yet highly interdependent. This transformation of Hawai'i's neighbourhoods into shared, multicultural spaces by immigrant families stood in stark contrast to the coercive, standardising impulses of the American colonial machine. Where working-class immigrants adapted and shared resources, the colonial government sought to concentrate power and property—a dialectic that became highly visible after World War II reshaped Kalihi.

While surrounding landowners capitalised on commercial re-zoning and urban renewal projects, displacing residents, Mr Sumiyoshi made a different choice. The photograph in Fig. 6 captures a few remaining dwellings along Robello Lane prior to their demolition to make way for urban renewal. By choosing to build apartments, it is conjectured that Mr Sumiyoshi demonstrated an enduring commitment to the neighbourhoods' working-class roots, prioritising affordable housing over pure profit. Some original families, like my father's, moved into these apartments, holding onto a fragment of the community.⁶⁶

Ultimately, the universalising forces of capitalism prevailed. *Kalo* patches and the communal spaces of the camps gave way to commercialisation. Today, the Lo'i Kalo Mini Park remains a small, vital symbol of a forgotten, deeply relational past.

An enduring spatial practice

Even within Kalihi-Palama's complex, changing landscape, families continued to look to relationality to respond to contemporary realities. The introduction of the single-family dwelling on an individual parcel was a settler-colonial invention. Like the decentralised system of the *kauhale*'s collective habitat within the

ahupua'a, the camp's architecture possessed permeable boundaries, embodying families' interdependent relationship with environment and each other. Colonial property regimes rendered the traditional *kauhale* structurally impossible, yet the Indigenous intelligence and collective imagination of this settlement pattern persist. Today, this embodied practice survives through multigenerational households, the fluid use of semi-outdoor spaces (like *lānais* and carports) as primary communal gathering areas, and stewardship of earth and water in places like the Lo'i Kalo Mini Park. For Native Hawaiians, dwelling represents an embodied practice of relationship with *'āina* that has persisted despite over 200 years of colonial influence and occupation—a lens through which to examine contemporary housing challenges. Kalihi reflects ongoing resurgence among Native Hawaiians, its spatial practices carrying forward Hawaiian ways of being and knowing.

Fig. 6 The 'camp' on Robelo Lane in Kapalama, Honolulu, before being torn down [Photograph: Hampton Miller, ca. 1960]



Contemporary architecture of aloha *'āina*

The story of Kalihi-Palama and the life along Robello Lane is itself a *mo'olelo* (history, story) of the *kauhale* as a living system; a *mo'okū'auhau* of place that survives fracture rather than being erased by it. *Mo'okū'auhau*, as method, is not only a genealogical claim on the past; it is generational and forward-facing: a set of relations carried into the present and toward the future. The persistence of the *kauhale* within Kalihi's camps represents genealogical continuity. In practice, it informs contemporary architecture, planning, and land stewardship, making *aloha 'āina* both spatial and material. The following provides contemporary examples of *mo'okū'auhau* guiding *ahupua'a*-based planning, and *kipuka aloha 'āina*, where the genealogy of place-based intelligence is being consciously rekindled to enact and design Indigenous futures.

A recent article co-authored with Kelema Lee Moses, "Living in Relation," calls for policy and planning approaches to future housing in Hawai'i that restore

Fig. 7 Lo'i Kalo Mini Park along
Kapalama Drainage Canal,
Kalihi, Honolulu, Oahu, Hawai'i
[Photograph: James Miller]



this reciprocal relation between people and *‘āina*.⁶⁷ Contemporary examples of architecture and community planning demonstrate the cultural resurgence beginning to transform the built environment, reflecting Indigenous intelligence and refusing colonisation. Led by practitioners like artist and architect Sean Connelly, contemporary creators are blending ancestral knowledge with modern engineering to build flexible, climate-responsive *hale*, as seen in Hale Pi‘o. Simultaneously, grassroots initiatives, exemplified by the community-led village design of Pu‘uhonua o Wai‘anae, are revitalising traditional *ahupua‘a* systems to house *Kānaka Maoli* facing homelessness.

Each of these projects can be read as an experiment in the quality of relationships housing makes possible. Hale Pi‘o restores a direct relationship with *‘āina* through its siting and materials, and with ancestors through the traditional knowledge it borrows from *kuhikuhipu‘uone* and master *hale* builders. Ho‘oulu ‘Āina restores relationships across the same immigrant and diasporic networks that have been traced through Kalihi-Palama. Pu‘uhonua o Wai‘anae represents the collective power of unhoused *Kānaka* and builds toward future generations, modelling the kind of *Kānaka Maoli* self-determination its own residents hope to pass forward.

Conceptualised by scholar Mary Tuti Baker as *kīpuka aloha ‘āina*,⁶⁸ organising efforts like Ho‘oulu ‘Āina and Pu‘uhonua o Wai‘anae operate as cultural and ecological oases that heal the land and foster community care. Ho‘oulu ‘Āina, which has become an active *kīpuka* within Kalihi itself, returning stewards to the *ahupua‘a* this article has shared.⁶⁹ Together, these spatial practices tackle urgent housing and environmental challenges by reconnecting Native Hawaiians to their ancestral lifeways.

These Indigenous approaches to housing provide place-based solutions to meet our current converging crises. They remind us of the *‘Ōlelo No‘eau*:

He po‘i nā kai uli, kai ko‘o, ‘a‘ohe hina pūko‘a
Though the sea is deep and rough, the coral rock remains standing

Like the coral that withstands the rough seas, Indigenous spatial intelligence has persisted despite centuries of colonial disruption, adapting through the plantation camps of Kalihi and re-emerging in modern architectural innovation. These *mo'olelo* reflect the *mo'okū'auhau* of Kalihi-Palama, grounding the present and guiding the future. By reframing the *hale* and *kauhale* as active, highly adaptable design intelligences rather than static historical artefacts, this article provides a necessary theoretical bridge for urban planners, architects, and policymakers. It moves the discourse beyond the binary of 'traditional versus modern,' demonstrating that to solve the contemporary housing crisis, we do not need to invent entirely new systems. Rather, we must actively design for the relational, land-based epistemologies that have always sustained life in the Pacific. By rekindling these practices and adapting them to contemporary urban contexts, we can create housing futures that are *pono*—in right relationships with the land, with each other, and with generations to come.

Conclusion

Perhaps the most fundamental shift required in Hawai'i's built environment is moving from understanding housing as a speculative commodity to seeing it as a living relationship. Traditional *Kānaka Maoli* housing practices were grounded in an understanding of *'ohana* that extended beyond the nuclear family, encompassing broader networks of interdependence, ecological care, and cross-cultural sharing—as evidenced by the lived realities of the Kalihi camps.

As various scholars demonstrate, there is a profound misfit between the standardised, single-family Western house and the land-based, ethical frameworks of Indigenous communities.⁷⁰ The Western model atomises the family, severs the domestic sphere from food production, and treats the outdoors merely as aesthetic property rather than a vital, working extension of the home. It is evident that new models of housing are needed that recognise the deep continuity of culturally specific socio-spatial patterns. A common challenge for communities and architects is imagining how these patterns translate into dense urban areas, especially as large numbers of Indigenous peoples live in urban areas like Honolulu, Auckland, or Seattle. While the expansive space of rural village life cannot easily be transposed into urban centres, architectural design can still draw on the generative logic of these deep cultural patterns, not their literal scale, to model more compact forms of housing within dense urban areas.

Drawing on Mishuana Goeman's investigation of Land within Indigenous frameworks as a living, evolving entity that is unbounded: "Land is a meaning making process rather than a claimed object... Placemaking is moving toward cultural and intellectual sovereignty."⁷¹ Crucially, land as private property is not a prerequisite to maintaining and passing on the continued evolution of meaning making. This relational understanding of housing directly challenges the market-driven approach that has made Hawai'i's housing among the least affordable in the United States. It suggests that solutions must go beyond simply increasing housing supply; they must address the quality of relationships that housing either enables or disrupts—relationships with *'āina*, with ancestors, with multi-ethnic community networks, and with future generations. Through this lens, we see the inherent flaws within contemporary housing production: it is strictly confined within the extractive economic production of capitalist society. Modern housing is fundamentally flawed if it does not restore relationality.

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Glossary

‘Āina	Land
‘Aumakua	Family ancestors
‘Auwai	Irrigation channels, canals
‘ili	Subdivision of an <i>ahupua‘a</i>
‘imu	Earth oven
‘Oha	Corm of the <i>kalo</i> (taro) plant
‘Ohana	Family
‘Olelo No‘eau	Proverb, wise saying
‘ulu	Breadfruit
Aho	Purlins
Ahupua‘a	Land division; a water shed-based model extending from mountain to sea
Akua	God
Ali‘i	Chief
Ali‘i nui	High chief
Aloha	Love, compassion
Aloha ‘āina	Love of the land
Apeke	Small land claim or reserved interest situated in larger tract of land
Furo	Wooden tub, refers to Japanese bath house (Japanese)
Hala	Pandanus plant
Hālau wa‘a	Canoe house or workspace
Hale	House
Hale ‘āina	Women’s eating house
Hale kuku	Kapa house/storage house for kapa making
Hale mua	Men’s meeting house
Hale noa	Sleeping house
Hale papa‘a	Food storage house
Hale pe‘a	Menstruation house
Hale Pi‘o	Name of <i>hale</i> created by Connelly and Leong Leong
Hale pili	Pili grass thatch house
Hāloa	Stillborn babe of Papahānomoku (earth mother) and Wākea (sky father)
He ali‘i ka ‘Āina, he kauwā ke kanaka	Proverb which positions the land as chief and the people as servants

*He po‘i nā kai uli,
kai ko‘o, ‘a‘ohe hina
pūko‘a*

Proverb translated as, though the sea is deep and rough, the coral rock remains standing

Hibachi

Traditional fire bowl, grill (Japanese)

Ho‘okupu

Offering, tribute

Ho‘oulu ‘Āina

Organisation; HĀ

Honua

Place, earth

Huaka‘i

Journeying

Hui Aloha

Oneness, in reference to Hui Aloha ‘Āina – a prominent nineteenth-century Hawaiian civic organisation formed after the 1893 overthrow of the Hawaiian Kingdom to oppose annexation to the United States

Hulihia

Turning

*I ka wā ma mua, ka
wā ma hope*

Proverb translated as, walking through the past into the future

Kahawai

stream

Kahua kapa

Women’s workyard

Kai

Sea

Kalo

Taro

Kama‘ainana

Child of the land

Kanaka

Person (singular), in context of article referring to Native Hawaiian (singular)

Kānaka

People (plural), in context of article referring to Native Hawaiians (plural)

Kanaka ‘Ōiwi

Person of Native Hawaiian descent

Kanaka Maoli

Native Hawaiian

Kanawai

Law, code

Kane hohoio

Hawaiian deity, god of the door way or threshold

Kapa

Bark cloth, typically of mulberry bark

Kapaoakua

Name of the land

Kapu

Natural law, sacred

Kauhale

Housing compound or village; traditional compound

Kauhuhu

Ridge pole

Kilikilihune

Fine light rain

Kīpuka

Clear place or oasis within a lava bed where there may be vegetation; a calm place in a high sea

<i>Kīpuka aloha ʻāina</i>	People, places, and organisations acting as ecological and cultural oases for the revival of Native Hawaiian lifeways; Indigenous refusal	<i>Pā pōhaku</i>	Low stone wall
<i>Kō</i>	Sugarcane	<i>Pae ʻĀina o Hawaiʻi</i>	Hawaiian archipelago
<i>Kokua Kalihi Valley</i>	A nonprofit dedicated to the wellbeing of low income residents	<i>Paluʻe</i>	Type of house in Indonesia
<i>Konohiki</i>	Land manager, headman of an ahupuaʻa	<i>Papahānomoku</i>	Land; earth mother
<i>Kuhikuhi puʻuone / Kuhikuhipuʻuone</i>	Master builder, geomancer, architect	<i>Pili</i>	Type of grass
<i>Kuleana</i>	Responsibility	<i>Pono</i>	Righteous balance; in right relationships with the land, with each other, and with generations to come
<i>Kumulipo</i>	Origin, genesis, source of life; name of the Hawaiian creation chant	<i>Pou hana</i>	Main posts
<i>Lānai(s)</i>	Porch, open air covered space near a house	<i>Puʻuhonua o Waiʻanae</i>	Name of organisation and place; literally, Place of Refuge in Waiʻanae
<i>Loʻi</i>	Irrigated terrace	<i>Pule hoʻolaʻa hale</i>	Consecration ceremony
<i>Loʻi kalo</i>	Taro patch/terraces	<i>Shamisen</i>	Traditional three-stringed, long necked musical instrument (Japanese)
<i>Lohelau</i>	Cross beams	<i>Takarangi</i>	Traditional intersecting double spiral (Māori)
<i>Loko iʻa</i>	Fishponds	<i>Ti</i>	Ti tree
<i>Lonoaea</i>	Placename	<i>Vā</i>	Relational space
<i>Māʻilikūkahi</i>	High chief of Oʻahu during the fifteenth century	<i>Waʻa</i>	Seafaring/outrigger canoe
<i>Mahalo</i>	Thank you, gratitude	<i>Wahinehiʻuʻia</i>	Fishtailed fern woman
<i>Māhele</i>	Division	<i>Wai</i>	Water
<i>Māhele ʻĀina</i>	Hawaiian title for the Māhele Act	<i>Waiwai</i>	Wealth, abundance
<i>Maiʻa</i>	Banana grove	<i>Wākea</i>	Sky father
<i>Makaʻāinana</i>	Stewards of the land	<i>Wao Akua</i>	Realm of the gods
<i>Moʻo</i>	A guardian, a lizard, continuity. Also a narrow strip of land, a land division smaller than an ʻili.	<i>Wao Kānaka</i>	Human realm
<i>Moʻokūʻauhau</i>	Genealogy	<i>Wao Nahele</i>	Forested region
<i>Moʻolelo</i>	History, story	<i>Whanaungatanga</i>	The deep sense of family connection that brings a sense of belonging, relationship, kinship (Māori)
<i>Moʻokūʻauhau</i>	Genealogical		
<i>Mochi</i>	Soft rice cake (Japanese)		
<i>Moku</i>	District		
<i>O ke kahua mamua, mahope Ke kūkulu</i>	Proverb translated as, the foundation first, then the building		
<i>Oʻa</i>	Rafters		
<i>Okinawan</i>	Referring to style of dance from Okinawa		
<i>Olena</i>	Turmeric		
<i>Olonā</i>	<i>Touchardia latifolia</i> , a native shrub		

NOTES

1. Glen Coulthard and Leanne Simpson define grounded normativity as the ethical frameworks derived from Indigenous place-based practices and associated forms of knowledge—the deeply rooted, reciprocal relationship to the land that informs Indigenous modes of thought, behaviour, and political systems. Refer to Glen Coulthard and Leanne Betasamosake Simpson, “Grounded Normativity / Place-Based Solidarity,” *American Quarterly* 68, no. 2 (2016): 249–55.
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