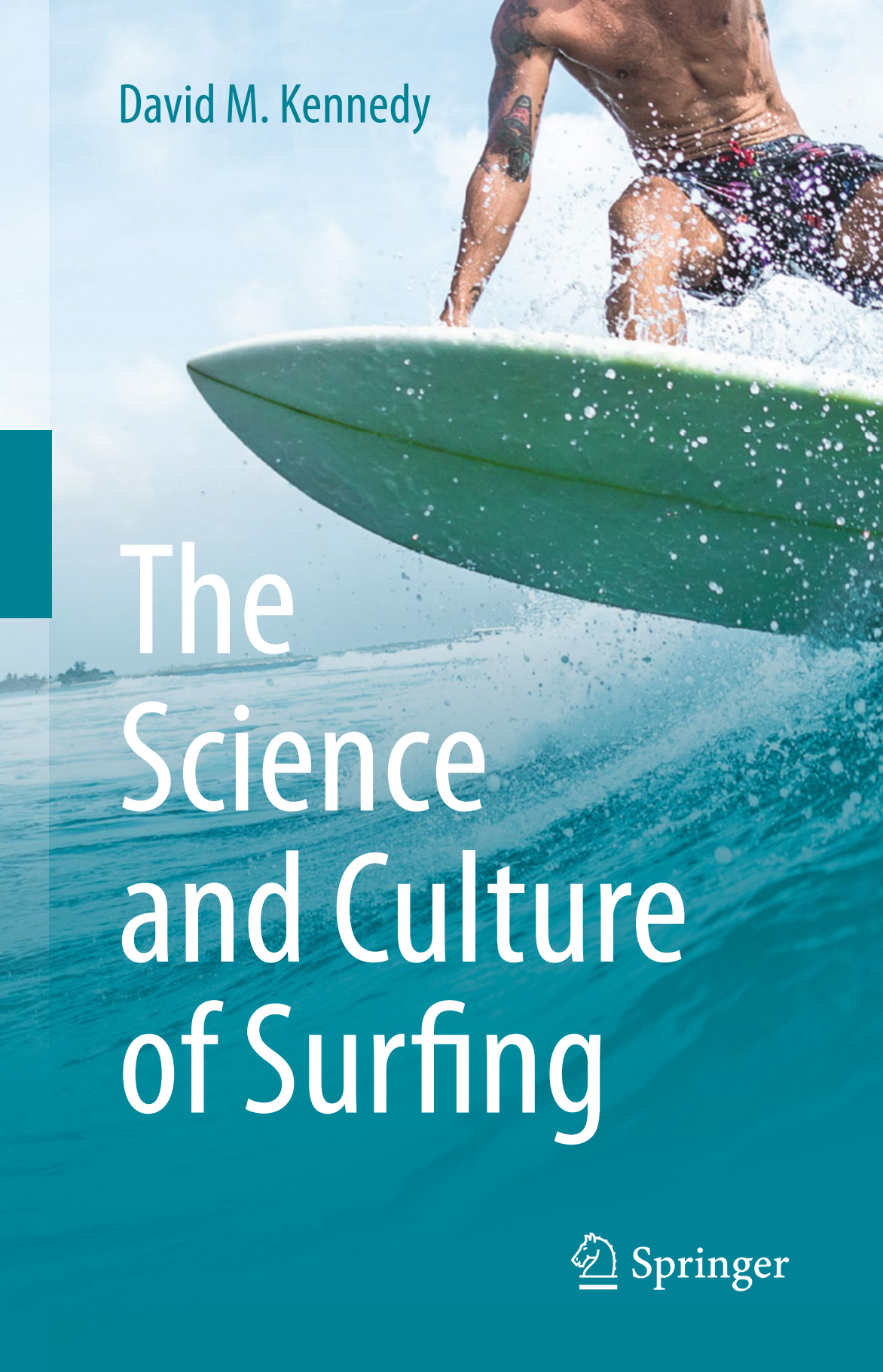

David M. Kennedy

The Science and Culture of Surfing

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Contents

Chapter 1
Introduction to the Science and Culture of Surfing

David M. Kennedy

1.1 Introduction

Surfing is an instant experience: to slide down the face of a breaking wave and ride it toward the beach provides an irreplaceable moment of pleasure and action (Fig. 1.1). No two rides are the same; each trip to the beach brings a new experience and a different perspective on the power of nature in the endless battle between sea and land. To surf is to experience nature in its purest and rawest form.

That instant moment of wave breaking—the focus of the surf experience—is the culmination of energy dynamics spanning the globe. It drives erosion of the coast and over long time periods, millennial in scale, shapes the shoreline that we enjoy today. The power of waves is related to the instantaneous circulation of the atmosphere across the planet. During storms, winds create waves, and these spread out through the ocean basins. Your local wave almost certainly derives part of its story from a storm thousands of kilometers away.

While riding the wave is the pinnacle of the surfing experience, it only accounts for 5% of the time in the water (Fig. 1.2). This means in a typical 1–2-hour session, only 180–360 seconds is spent surfing a wave (Meir et al., 2015; O'Neill et al., 2021) (Chap. 7). When one considers the effort taken in travelling to a break, whether it be your local or a holiday destination, the investment in equipment and health, and the industry required to produce the products required for surfing, it is clear that surfing is worth the effort.

The impact of surfing is felt way beyond the waves themselves. An identifiable culture surrounds and emanates from surfing. From the classic "surfer dude," captured in the media and movies of the mid-twentieth century to the ecofeminist radical surfers of today, surfing has been a shaper of, and responding to, cultural shifts

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Fig. 1.1 The joy of riding a wave, always different, always exhilarating. (Photo: Peter Jovic)

Fig. 1.2 Sitting, waiting for a good wave, is just one of a multitude of experiences that comprises a surf session. Surfing also requires an industrial economy to provide the equipment needed to surf from wetsuits to boards. (Photo: Peter Jovic)

of the time. Through fashion, music, and personal character, a surfer can often be identified across cultural boundaries. Such is the appeal of the lifestyle that even people who are far from the water seek a surfer persona through sporting brands and outlets. The power of surfing is undeniable.

1.2 Surfing Science and Culture

In this book, we explore the multifaceted nature of surfing and the impact it has on society from culture to economics. The book starts, as everything does, with history. To fully understand where we are and where we are going, we have to know where we have been. Surfing started with the seafaring Austronesian people as they ventured into the then unpopulated Pacific Islands thousands of years ago. Riding waves has therefore been present throughout Polynesia, and in Hawai'i, this activity was called *he'e nalu,* meaning the art of surfing or literally translated as "wave sliding" (Chap. 2). Surfing was first presented to "Western" eyes by John Webber in 1778 in his painting depicting Cook's arrival in Kealakekua Bay, Owyhee (Hawai'i). Earlier to this, surfing (of tidal bores) was also known in dynastic China (Zanella, 2019). While represented, especially in the surfing movies and magazines of the mid-twentieth century, as the pursuit of youth in California and Australia, its origins are deep in the culture of the Pacific. Surfing is a gift from these peoples to modern society to which we are eternally grateful.

The breaks that we ride are the end of a global-scale energy conveyor belt that starts with waves generated in high latitude storm belts and tropical storms and ends with them reaching the coast. The physics of energy transfer between the air (through wind) and into the ocean is highly complex, as is the change in the form of this energy as it travels through the ocean (Chap. 3). Once a wave is formed, it loses little energy before it hits the shore; hence, large waves occur in areas which are calm—the perfect conditions for surfing. While the physics of fluid dynamics is incredibly complex—and not even fully understood by scientists—the basic relationship between the strength of the wind, how long it blows, and how much water it blows across is straightforward enough to produce highly accurate models of wave height (Chap. 3). The revolution in computational understanding and environmental monitoring now means the surfer can simply use an app-based forecast to know when and where to go.

For a wave to be surfable, it must break in the right form. Here the geomorphology, the shape of the landscape both above and below the sea, is critical (Chap. 4). The shape of the seafloor determines where and when the wave will break and also the form that it will take. A reef break is a different ride to that on a beach bar. The canyons of Nazaré, Spain, give a very different surfing experience to the lefts and rights in the sandy bay of Zarautz, Spain. It is the landscape that determines this diversity in experience (Chap. 4). As the seabed affects the break, the waves also change the shape of the geomorphology. This can happen at a range of scales from seconds to minutes when moving loose sand, to thousands of years when eroding hard rock. The key here is the feedback between energy input from the waves and the ability of the geomorphology to resist this attack (Chap. 5).

The impact of waves on the people who ride them is significant both in a mental and physical sense. Surfing is fun—that is why people do it! In fact, it is estimated that the global mental health benefit of surfing is worth US$0.38–1.30 trillion per year (Buckley & Cooper, 2023). It is also a recognized therapy under Australia's National Disability Insurance Scheme (NDIS, 2022). Surfing is also dangerous as the rolling breakers, and the currents they create can cause physical harm and even death (Chap. 5). On average, recreational surfers will experience one to two injuries per 1000 hours of activity (Chap. 7). As breaking waves are highly unstable environments, excellent balance, posture, and body position is critical for performing maneuverers. In fact, people who have surfed for a long time have far better postural control and balance than otherwise fit people who only cycle, walk, or swim (Chap. 7).

As surfers are not the only people who enjoy the beach, they also act as life savers (Chap. 6). Surfers carry a flotation device and have innate knowledge of surf conditions at their location perfectly placing themselves as informal lifeguards. A recent survey indicated that 80% of surfers would readily help someone in distress in the water (Attard et al., 2015). Apart from saving lives and the positive impact this creates socially, the economic result is also huge. A study in New Zealand estimated that if just 1% of surfers conducted one rescue that saved a life per year, it would prevent an economic cost of NZD $6.4 billion (Mead et al., 2024).

It is estimated that there are up to 35 million surfers across the globe (Lawes et al., 2023), around equal to the UN estimates of the total population of Malaysia or Uzbekistan. A US$4 billion surf industry (Statista, 2022) revolves around these surfers whose travels generate between US$32 billion and US$64 billion of direct expenditure (Chaps. 9 and 10). Surfing is certainly big business, reaching the sporting realms of Olympic level in 2020. This size creates challenges to the images of surfing, in how does the authenticity of a surfing subculture get diminished when it enters the mainstream (Chap. 11). This is especially the case when companies to maximize profits seek to engage an even wider customer base that just its participants. This is succinctly articulated by Jarratt (2010) (p. 10) who observed that "Surfing's biggest brands (were able to) cross the billion-dollar threshold by thinking big and staying cool … and that's a hell of a balancing act" (Chap. 11).

For a sport that is rooted in youthful rebellion, the modern surfer most often is more likely middle aged and probably less rebellious than they would consider themselves. In its early days, the average age of a surfer was around 18 years; today, it is around 30, with peak participation being in the 45–54 age category for men and in the 35–44 age category for women. Surfing can no longer be legitimately positioned as a youth sport tied to youth culture (Sims & Scott, 2022) (Chap. 11).

The "coolness" of surfing can be tracked through time in it its representation in film, television, and print, through to today's social media (Chaps. 12 and 13) as well as art (Fig. 1.3). "Surfing is at once a physical activity without inherent

Fig. 1.3 Fin art showing different aspects of surfing culture. (From the collection of Craig Sims)

meaning and a performative act richly infused with social and cultural significance…. It has long functioned as a meeting point and catalyst for social development" (Chap. 13). The classic surfing films of the 1960s and 1970s drove the representation of the sport to a global audience while providing, sometimes subtle other times overt, social critiques of society (Chap. 13). The framing of this medium has rapidly changed as the transferal of knowledge systems has evolved into today's mass media forms (Chap. 12). Originally surfing only occurred through a personal, often familial knowledge exchange between elders to their direct or extended whānau (Māori for wider family). In traditional Hawai'i, *he'e nalu* was the realm of all where prowess in the surf was celebrated as social status (Chap. 2). This personal culture of surfing was carried as the sport spread across the world, though the original indigeneity was lost for a while. As more sought surfing, knowledge exchange moved into the realms of media both for skill development and eventually simple sport based entertainment. This landscape is now much more complex and diverse than in the mid-twentieth century as surfing's individualistic radical roots intersect with commercial economic interests of the modern era (Chap. 12).

The power of surfing is now evolving onto the political stage. It was declared the official sport of the State of California. The US State Department even uses surfing as a form of soft diplomacy through their "Sports Envoy Program" which funds high profile surfers from Hawaii to tour communities in Papua New Guinea, run surf clinics, and host discussions about gender-based violence and equitable access to education and health (Chap. 10).

The simple act of catching a wave, the hedonistic lifestyle that is created around this pursuit, is powerful, global reaching, and culturally rich. Surfing has and will continue to make the world a better place. Its intimate link to nature underpins its importance in recognizing the power of the Earth and protecting the natural world on which we all depend (Fig. 1.4).

Fig. 1.4 "The act of surfing on a wave is, therefore, an ephemeral event; an activity bound by space and time that leaves no trace of its existence (Ford & Brown, 2005)" (Chap. 11). (Photo: Peter Jovic)

References

Attard, A., Brander, R. W., & Shaw, W. S. (2015). Rescues conducted by surfers on Australian beaches. *Accident Analysis & Prevention, 82*, 70–78.

Buckley, R. C., & Cooper, M.-A. (2023). Mental health contribution to economic value of surfing ecosystem services. *npj Ocean Sustainability, 2*(1). https://doi.org/10.1038/s44183-023-00027-5

Ford, N. J., & Brown, D. (2005). *Surfing and social theory: Experience, embodiment and narrative of the dream glide*. Routledge.

Jarratt, P. (2010). *Salts and suits*. Hardie Grant Publishing.

Lawes, J. C., Koon, W., Berg, I., van de Schoot, D., & Peden, A. E. (2023). The epidemiology, risk factors and impact of exposure on unintentional surfer and bodyboarder deaths. *PLoS One, 18*(5), e0285928. https://doi.org/10.1371/journal.pone.0285928

Mead, J., Le Dé, L., & Moylan, M. (2024). The unexplored role of surfers in drowning prevention: Aotearoa, New Zealand as a case study. *Environmental Hazards, 23*(2), 150–166.

Meir, R., Duncan, B., Crowley-McHattan, Z., Gorrie, C., & Sheppard, J. (2015). Water, water, everywhere, nor any drop to drink: Fluid loss in australian recreational surfers. *Journal of Australian Strength & Conditioning, 23*(6).

NDIS. (2022). *National Disability Insurance Scheme: What do we mean by social and recreation support?* Australian Government. Retrieved 28/8/24 from https://ourguidelines.ndis.gov.au/supports-you-can-access-menu/social-and-community-participation/social-and-recreation-support/what-do-we-mean-social-and-recreation-support

O'Neill, B., Leon, E., Furness, J., Schram, B. E. N., & Kemp-Smith, K. (2021). The effects of a 2-hour surfing session on the hydration status of male recreational surfers. *International Journal of Exercise Science, 14*(6), 1388–1399. https://search.ebscohost.com/login.aspx?direct=true&db=s3h&AN=173328987&site=ehost-live&scope=site

Sims, C., & Scott, O. (2022). *The nature of Gen-Z's Influence on the future of printed Surf Magazines*. Bond University.

Statista. (2022). *Global surfing industry market size 2022–2027*. Statista Research Department. Retrieved 28/8/24 from https://www.statista.com/statistics/1327319/surfing-market-size-worldwide/

Zanella, N. (2019). *Children of the tide: An exploration of surfing in Dynastic China*. Cordee Ltd.

Chapter 2
Surfing and Indigeneity: He‘e Nalu, Discourse, and Empire

Hunter H. Fine

2.1 Introduction

Developed in Oceania as the result of the migration of people across the open ocean of the Pacific, the practice of riding waves was present throughout Polynesia. In Hawai‘i, this activity was called *he‘e nalu*, meaning the “art of surfing” or literally translated as “wave sliding.” Surfing in the present day builds on these origins. In popular discourse on the subject, surfing is largely described as an endeavor that is revived, progressed, and mastered by Western practitioners. Subsequently, the role of Indigenous wave riders, notably *Kānaka Maoli* or native Hawaiians, is often vastly understated (Walker, 2011; Ingersoll, 2016). As the activity was popularized throughout the Western world, particularly in the USA, this ignoring of cultural knowledge initially served colonial ends, and even today this legacy still persists. This chapter attends to some of this obfuscated territory and functions to recuperate ways of knowing that have been intentionally destroyed or casually omitted. Any representation of surfing references the histories of Indigenous wave riding, *Kānaka Maoli he‘e nalu*, and Austronesian seafaring.

In Matavai Bay, Tahiti 1777, William Anderson, a surgeon on Captain James Cook’s *Resolution*, described a local practitioner performing the basics of paddling a board, waiting and watching for a swell, and finally riding a wave along and toward the shore. Over a 100 years before this description, in the 1600s along the west coast of Africa in what is now Ghana, practitioners rode waves in “prone,” kneeling, sitting, and standing positions in “one-person canoes” (Dawson, 2017). These Indigenous Africans developed independent wave riding practices before colonial contact creating and riding both canoes and boards in surf zones.

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Relatedly, the *caballito*, a reed canoe-like vessel, was used before Western contact by Indigenous Peruvians to slide down the face of a breaking wave when returning to shore (Warshaw, 2010). It therefore is easily stated according to scholars such as Matt Warshaw (2010), Isaiah Heikunihi Walker 2011, 2017), Scott Laderman (2014), Kevin Dawson (2017), Colleen McGloin (2017), Dexter Zavalza Hough-Snee and Alexander Sotelo Eastman (2017), and others that contemporary surfing is grounded in Indigenous knowledge that predates colonization.

Surfing is evidenced to have been practiced in a general manner in locations such as Peru, Senegal, and the Ivory Coast of Africa; however, it became particularly evident in Oceania. In Hawai'i notably, riding waves was known specifically as *he'e* or "to slide" and *nalu* or "wave" (Pukui & Elbert, 1986). Wave sliding was more than a physical practice—it functioned as a significant custom within the complex governing system of *Kapu*, which was a set of rules that administered daily life as a complete societal regulatory system. *Kapu*, or similar, was present throughout many islands in the Pacific (Warshaw 23). Secondary definitions of wave riding provide a glimpse into its conceptual nature as *he'e* was also defined as "to put to flight" and *nalu* "to ponder, meditate, reflect, mull over" and "speculate." These words are illustrative of an Indigenous knowledge set and are indicative of a much larger body of knowledge. To slide along the crest of a wave was to put one's body and mind into flight bringing about a host of cerebral, environmental, and physical negotiations in the process (Chap. 7).

John R.K. Clark (2011), working from Hawaiian sources, produced a Hawaiian and English language reference work containing a glossary of over 1000 Hawaiian terms relating to the practice of *he'e nalu*. This surviving knowledge represents a fraction of the meaning and importance placed on the practice as over a 1000 years ago *Kānaka* rode waves on *papa* or boards in meaningful performances of social identity and individual expression (Finney and Houston 106, 24; Warshaw 22). Children rode a small *pupo* or body board in the shore break or *po'ina nalu*, while *ali'i* or royalty rode the large buoyant *olo* board on a *ha'i, ha'i maika'i* or perfectly breaking wave. Such sought-after surf zones, materials, and boards were often protected sites under *Kapu* as there is ample evidence of wave riding as a physical, conceptual, and political act.

In each instance of Indigenous wave riding, particularly in Oceania, the connections between the practice of riding canoes and boards on waves are evident. These moments indicate a shared culture that consisted of a series of unique practices including material harvest, tool fabrication, carving, and vessel navigation initially honed by Indigenous Austronesian cultures throughout Oceania. What we refer to as surfing, which is not used as a term until the twentieth century, is an encounter with the practice of *he'e nalu* and the larger culture of Austronesian seafaring. Surf scholarship and the ongoing critique of colonial legacies have created a valuable conversation concerning the social, cultural, and political roles of *he'e nalu* and contemporary surfing; however, seldom is the connection made between surfing and seafaring in their Indigenous forms.

When Indigenous spaces are colonized, locations such as the surf zone, the wave riding practices themselves, and the ways in which we discuss and represent them become sites of tension. In turn, the marking of these connections to Indigenous cultural roots and structures is political as they also comment on current forms of structural domination. McGloin and Walker have noted that surfing has functioned a form “of resistance to the enduringness of colonialism” (McGloin 2017). Today surfing is a borderland, a physically and symbolically contentious site. Walker (2011) defines the *ka po‘ina nalu* as a space, where social differences converge and “unique social and cultural identities are formed.” He claims that as a result, “state-sanctioned authority is often absent from” these zones. To surf is to reference both Indigenous agency and a colonial history as themes of cultural seizure are enmeshed in surfing narratives and practices (Chap. 13).

Walker notes that the *ka po‘ina nalu* or surf zone is a site of resistance due to the sustained presence of Hawaiian surfers. Whether it is the fluidity of the zone itself or the radical nature of the movement employed in its negotiation, the surf zone creates a liminal space. He adds that due to the preservation of these spaces through surfing, “colonial powers were less able to conquer” (Walker, 2017). Dawson (2017) adds that a continual wave riding presence and culture “challenged these incursions as twentieth-century coastscapes were embattled political spaces” which remained “Indigenous culturalscapes” (144). Surf zones all around the globe remain a physical and intellectual location where different narratives of the world compete.

Many Indigenous scholars such as Elizabeth Lynn-Cook (2012), Epeli Hau‘ofa (2008), Marissa Muñoz (2019), and Vincent Diaz (2016), among others, have discussed the ways that Indigenous paradigms are revealed when paying attention to geographical and socio-spatial contexts. Many others have noted the social productions of space in general, such as Henri Lefebvre (2007) and Marc Augé (1995); the interplay between physical places and more ideological spaces such as Yi-Fu Tuan (2007) and Tim Cresswell (2004); the ways individuals and groups embody, reify, and resist spatial and social productions through everyday practices such as Michel de Certeau (1984) and Pierre Bourdieu (1990); and the intersections that are created between geographical borders and boundaries of identities such as Gloria Anzaldua’s (1985) work on borderlands.

Today the *ka po‘ina nalu* continues to function as such a space, which is transferred to the identities of surfers (Fine 2018; Walker, 2011; Modesti, 2008). From these symbolic and physical intersections, a production occurs, which Sonja Modesti (2008) refers to as a “material consequentiality” or the ways in which discourse can produce material affects. The surf zone, the narratives consumed, and the riders themselves become indicative of the spatial tensions they embody. Such performances mix with popular narratives, and in turn, surf scholarship has observed that surfing has performed many different, often contradictory, roles throughout history. The practice, its spaces, and its discussion remain important points of tension that continue to unfold.

McGloin notes that riding waves is a form of learning, a pedagogy involving indigeneity. In this regard, she notes that when we recognize Indigenous aspects of

surfing, this "recenters indigenous knowledges, epistemes, histories, and spatiotemporalities" (197). The act of riding waves is entangled with the symbolic modes it has performed throughout history as surfing has also been used to colonize Indigenous land and sea spaces according to scholars such as Laderman and Dawson (Dawson 144). Laderman (2014) argues in *Empires in Waves: A Political History of Surfing* that the Americanization of riding waves fueled imperial expansion. Similarly, Dawson (2017) states that as surfing was Westernized, it was concurrently used to further encroach on Indigenous spaces previously unavailable to European and American settlers.

Karin Amimoto Ingersoll in *Waves of Knowing: A Seascape Epistemology* (2016) states that on the Hawaiian Islands, surf tourism and the surf industry have continued to confine and limit the movements of Indigenous Hawaiians as outsiders crowded, "surf breaks, channels, and beaches, leaving no 'space' for autonomous Kanaka movement." Krista Comer (2010), in "Surfeminism, Critical Regionalism, and Public Scholarship," notes that the gendering of surfing reflects global dimensions that can further sexist constructions while acting as a cover for, "Western imperial land grabs in surfing's new emergent markets." Today surfing is caught between numerous borderlands. In *Surfer Girls in the New World Order* (2010), Comer adds to her analysis by stating that "critical femininities" can also be developed alongside "critical sensibilities," arising from an awareness of the ways in which surf zones function. She emphasizes the connections between surfing sites and identity formations surrounding gender, race, and nationality.

In contemporary contexts, the *ka poʻina nalu* continues to function as a potential space of recuperation. Comer mentions how the contemporary surf zone can be harnessed to breach patriarchal structures. Relatedly, on the Hawaiian Islands *Kānaka* enjoyed *heʻe nalu* in mixed male and female spaces. This contrasted with other social areas such as dining that were often divided based on sex. Meanwhile both male and female practitioners had access to the same surfing zones outside of royalty. It was a space of temporary equality where all had access to forms of cultural capital. Princes and princesses alike were often highly celebrated for their surfing ability, adding to their societal status through displays of surfing prowess. These examples illustrate the divergent and similar qualities of Indigenous wave riding and contemporary surfing as sites of transgression and cultural capital.

Any wave capable of being ridden is both a contemporary resource that remains accessible according to the conditions of land and a historical symbol of Indigenous knowledge. Everyday acts such as riding waves continue to play large roles in defining the identity of a community and nation. In this regard, the reordering of *heʻe nalu* along Eurocentric lines transgresses the various contemporary frameworks in which it is often placed, such as exercise, escape, and sport. In this chapter, I examine the discursive intersections between Indigenous wave riding and its Western manifestation, surfing. I focus on the symbolic transformations involved as *heʻe nalu* is intentionally transformed into surfing. To examine its symbolic representation is to examine its material performance. I argue that these historical tensions continue in contemporary discourse and manifest themselves in material forms having much to do with larger colonial and postcolonial structures. I first discuss

Indigenous surfing as an extension of Austronesian seafaring culture before illustrating how Western surfing was developed from Indigenous Hawaiian *he‘e nalu.* Finally, I examine points of intersection in early discourse on wave riding between nation, identity, and culture.

2.2 Austronesian Seafaring and Surfing

Austronesian refers to the Indigenous inhabitants of Taiwan, maritime Southeast Asia, Micronesia, coastal New Guinea, Melanesia, and Polynesia, as well as Madagascar who are linked through a common language and ancestry. Stemming from their seafaring cultural awareness, knowledge, and practices, *he‘e nalu* developed on the precolonial Hawaiian shores. The acts of riding waves and carving boards are developed through the practices required to develop a sustained network of open sea navigation and canoe building (Finney & Houston, 1966, p.22). From the moment of European interaction by Ferdinand Magellan with CHamoru and Filipinos and Cook in Hawai‘i with *Kānaka* and Indigenous Tahitians, the practices of canoe building, seafaring, and wave sliding were symbolized according to distinct narratives of authors of the times that reflect their various political contexts. What is seldom discussed is the place riding waves occupies in relation to the practices of seafaring culture unique to Oceania.

Riding waves utilized a hand carved board that created a unique relationship with the intensity of the ocean, which was first established through traditions of Austronesian seafaring. Indigenous seafaring and surfing share similar epistemological underpinnings, which are part of a much larger historical and widespread network of Indigenous knowledge stretching back over 4000 years from the Philippine and Indonesian archipelagos to Madagascar in the east, Hawai‘i and *Rapa Nui* to the north and west, and *Aotearoa* (New Zealand) and Australia to the south. Each site within the vast region covering much of the globe has a shared and unique seafaring tradition recognized most visibly by the outrigger canoe. On the Hawaiian Islands and elsewhere in Polynesia, this tradition is known to also produce boards and wave riding.

The first Western illustration of a surfboard in 1778 by John Webber on Cook’s arrival in Kealakekua Bay, Owyhee, or Hawai‘i depicts a local paddling out to sea among numerous traditional outrigger canoes (Finney & Houston, 1966). The HMS *Resolution* and the HMS *Discovery* sit in the background of the image as many *Kānaka* seafaring practitioners make their way to them from all directions (Fig. 2.1). This person, their posture, board, and accompaniment of outrigger canoes, alludes to the shared qualities of these crafts in the water. The vessels depicted looked and moved through the water similarly. They were undoubtedly carved according to equivalent traditions and out of the same materials. Once a central hull was carved, planks or boards were carved to build up the sides of larger canoes. These boards were rudimentarily shaped much like boards for riding waves. Austronesian seafaring is part of a system of physical practices and concepts, a series of interconnected

Fig. 2.1 Painting by John Webber in 1778 on Cook's arrival in Kealakekua Bay, Owyhee, or Hawai'i showing Indigenous canoes and board paddlers in the surf

methods, terms, and ideas whether they manifest themselves in the Marianas in Micronesia, Hawai'i and Tahiti in Polynesia, or the Philippines in Southeast Asia.

Such practices were based on local identification and harvesting of specific trees and plants, carving canoes, and tool construction, which effectively lead to the same identifying, harvesting, and carving practices that produced the *olo* and the *alaia* boards of *he'e nalu* (Clark, 2011) (Fig. 2.2). This connection remains an undeniable link between surfing and traditional seafaring as Indigenous networks connects not only the islands and sea spaces of Oceania but also to contemporary practices such as surfing. Riding waves and its physical and conceptual precursor, Austronesian seafaring practices are part of a shared body of Indigenous knowledge.

The ancient Austronesian art of carving, with adze, blade, and fire, is a learned trade that produces these material objects (D'arcy, 2006). All of which are made possible by a community familiar with a network of shared practices passed down through a formal oral tradition of teaching. Along with the construction, riding waves on boards developed as an endeavor complete within an incalculable number of social meanings and hierarchies. Most of these mirrors those related to seafaring culture. The significance placed on *he'e nalu* on the Hawaiian Islands is akin to the importance of seafaring within community structures throughout Oceania. Finally, the practices of seafaring and surfing exhibit a similar approach to the negotiation of dynamic seascapes, a complete familiarity with the ocean, and an equally complete subjectivity that arises from the social, physical, and intellectual practice. Seafaring and surfing share not only a particular relationship with the sea but more specifically a way of knowing based on calculated responses to constantly changing environments.

Austronesian seafaring culture constitutes a network of learning and information. It is comprised by an almost infinite series of interconnected practices, terms, and ideas that result in the creation of large material objects such as canoes to the

Fig. 2.2 One of the earliest known photographs of a surfer, taken on Waikīkī Beach, Hawai‘i, in the late 1800s (most likely 1890). The surfer is carrying an *alaia* style board while gazing out at the waves. Diamond Head is in the background. (Source: ANMM Collection, https://collections.sea.museum/en/collections)

grand acts of travel such as open sea voyages. This is most visible in the voyaging achievements of the Polynesian Voyaging Society and the *Hōkūle‘a*, a double hulled craft fabricated according to traditional Polynesian designs. In 1976, Grandmaster navigator Pius Mau Piailug navigated over 3000 miles of open ocean from Hawai‘i to Tahiti by traditional navigational means taught and practiced in Micronesia. During the journey he utilized and taught one of its central tenets, the Carolinian star compass, which works in unison with other environmental navigation techniques. He shared the knowledge of his ancestors, not only with his sons grandmaster navigator Sesario Sewralur and master navigator Antonio Piailug and others on his home island of Satawal but also on the *Hōkūle‘a*. In the geopolitical contexts, this monumental journey became a deliberate act of social advocacy.

Since this maiden voyage, numerous seafaring traditions throughout Oceania have been revived by local practitioners. The various forms of traditional seafaring practices throughout Oceania and the world exemplified by the Canoe Federation CNMI, Polynesian Voyaging Society, Tahitian Voyaging Society, and the Micronesian Voyaging Society, among many others, represent a practice that promotes Indigenous optics. Meanwhile Indigenous wave riding, particularly Hawaiian surfing and surfers, are often recognized as a sovereign cultural and national

identity often unobtainable in other arenas (Walker 79). Surfing is an aspect of seafaring, a larger, more dispersed, and arguably recognized form of Indigenous social advocacy, yet Indigenous surfing particularly in Hawai‘i as many scholars have noted has functioned as salient site of resistance.

Acknowledging that surfing is part of this larger cultural constellation reminds us that surfing as well is composed by a larger network of meaning. Within Western discourse, the acts of surfing and seafaring are separated as are the various acts and roles of surfing within surfing culture; however, each practice and element such as carving boards and riding waves or navigating social and physical spaces is closely connected. Hawaiian newspapers from the nineteenth century indicate these links that form this shared cultural structure. The extensive undertaking of moving through oceans on fabricated crafts can only occur after a complex series of practices that involves the creation of canoes for paddling and sailing and boards for surfing from trees. This larger structure constitutes a set of knowledge that provides the foundation for riding waves as well as an indication of their ordering within a system:

> He [Kamehameha] chose kahunas who were makers of double canoes (wa‘a kaulua), war canoes (wa‘a peleleu), single canoe (wa‘a kaukahi), sailing canoes (wa‘a kialoa)— either one masted canoes (kiakahi) or two-masted (kialua); and kahunas who were makers of holua sleds and [alaia] surfboards (papa he‘e nalu). (Clark, 2011).

Kamehameha, royalty, chose specialists to manufacture various canoes, boards, and sleds to be used to traverse the sea. The excerpt above indicates a shared maker of numerous crafts that all are constructed, designed, and used in similar ways. As both canoe and board building and use were discouraged or even banned, during colonial times, the connections between the art and science of surfing and its wider cultural important were also severed. As the endeavors reemerge in differing forms, they became aligned with mainstream depictions as individual sports of daring, leisure, and privilege, rather than everyday pursuits of life-sustaining spatial engagement, stemming from a personal and often intimate fabrication.

Ingersoll (2016) states that like surfing, “voyaging becomes an ideology,” which constitutes a way of knowing. Both endeavors engage in unique situational contexts as frameworks for action, navigating according to a variety of signs and directing a surfboard through water to catch and ride swells (Lewis, 1972). Within the cultural constellation of traditional Polynesian seafaring, the Hawaiian outrigger canoe, the *wa‘a*, for example, has a shallow hull designed to navigate potentially shallow waters, which often surround islands, while the more specific design, the *wa‘a pā.kā.kā nalu* is described as a canoe specifically intended for surfing waves (Clark, 2011). Surfing is an aspect of seafaring, and both vessels function today as forms of Indigenous agency. Indigenous surfing is an extension of Austronesian and Oceanic traditions of seafaring and canoe building, entailing a constellation of meaningful practices. The ways in which these tensions play out has much to say about our cultural, social, and political identities.

When the *Hōkūle‘a* made its second voyage, most surfers with connections to Hawai‘i instantly saw the connections between seafaring cultural heritage in

Oceania and surfing. Many were eager to support and participate given the obvious shared cultural and operational territory. The navigation of the second voyage did not include Micronesian navigator Mau Piailug and centered around a Hawaiian centric revival. Surfers were some of the most focused and eager to contribute possessing a rich history of involvement in battling intense aquatic spaces. Surfing for decades had also already been embattled as forms of social resistance. Like the shortboard revolution in surfing that appears after Indigenous forms, there is a reversal of Indigenous knowledge in settler-colonial contexts. Surfing awareness and the ability to charge into what are, for many, intimidating aquatic environments made epistemological sense when riding waves intersected with the precursory cultural knowledge of traditional seafaring. Eddie Aikau came into the scenario as a legendary surfer, water person, and lifeguard moving Kānaka agency on a global scale much as Kahanamoku had earlier. The second voyage of the *Hōkūle‘a* capsized in the waters between O‘ahu Duke and Moloka‘i in 30 knot trade winds and 6–10 foot swells. The crew was stranded on a capsized vessel with no support boat, 5 hours after they departed Ala Wai Harbor. The next day, Aikau lost his life attempting to save the lives of others as he had so many times before. He ventured out on a board and was tragically never seen again. The rest of the *Hōkūle‘a* crew was eventually rescued and renewed attention to safety and the larger cultural underpinnings insured that the *Hōkūle‘a* would go on to unparalleled success, partially in memory of Aikau. The connections remain indelible as boards and canoes were carved together in the same spaces using identical materials, tools, and techniques. They eventually were paddled out alongside each other and came to constitute important acts of cultural meaning and resistance in contemporary contexts.

2.3 *He‘e Nalu* to Surfing

There exists, centering around its development on the Hawaiian Islands, a sustained interpretation of riding waves in the English language writings of Hiram Bingham, Henry T. Cheever, William Ellis, James Cook, Mark Twain, and Jack London. Other Western writers have added to the narratives concerning surfing including Isabella Bird, James Michener, Thomas Wolfe, Timothy Leary, and Kem Nunn (Comer, 2010, 9). Along with these popular English language texts, there exists a large body of information pertaining to *he‘e nalu* contained in Hawaiian language newspapers written before 1900. Much of the information drawn from these newspapers beginning in 1834 are available due to the work of Hawaiian scholars such as John Papa ‘Ī’Ī, Samuel Kamakau, Zephrin Keauokalani, David Malo, Mary Kawena Pukui, Samuel H. Elbert, and others (Clark 2–3). Through the examination of the discourse concerning *he‘e nalu* and surfing, we can better understand what surfing is and how it functions.

On the Hawaiian Islands prior to colonial contact, the practice of riding waves for most began with the shaping of a *papa* or board, typically the *alaia* (Clark,

2011). A Hawaiian language newspaper in 1865 describes the widespread practice of riding waves.

> Surfing is a very popular sport in Hawai‘i from the chiefs to the commoners. This is how you do it. The board is created ahead of time out of koa, kukui, ‘ohe, wiliwili, or other woods that are good for making boards. (Clark, 2011, 406).

The description of riding waves begins with the harvesting of material before producing an object that is now a commodity of an industrial market. The same processes and tools used for carving a canoe are now discussed solely for the purposes of carving boards, which serve similar aquatic functions. The directions start with the searching for “woods that are good for making boards or plant identification, harvesting, and fabrication intended for specific use (Clark, 2011). To this day, boards are referred to as being shaped rather than made and often are products of handmade labor. Within surfing discourse, the questions of where the designs or ideas for surf boards initially came from or how the stances and gestures of paddling and standing developed are seldom asked. The answers to these questions are contained in the lived memories of Indigenous practitioners, descriptions such as these of *Kānaka he‘e nalu*, as well as in the objects and practices themselves.

The design of the *alaia*, for example, is specific while generally adaptable to the rider (Fig. 2.2). It is the outcome of an evolution of riding the *waha* or steep section near the inside of a curling wave (Clark, 2011). This is still the most sought-after posture and position in surfing, crouching low as if riding an *alaia* as one is required to do to maintain control on a thin finless tomb-shaped board with long straight edges, tucking one’s torso under the lip of a hollow breaking wave. There are many such waves on the Hawaiian Islands but as surfing is developed from these Indigenous wave riding practices, the more gradually breaking waves and use of the large royal *olo* become popular. The thin narrow *alaia* functioned as the board of the people commonly used to ride waves in Hawai‘i and is typically constructed by the rider themselves rather than an expert carver as was often the case with royalty. The harvesting of material was a sacred process protected heavily by rules of the *Kapu* system, and to cut down a tree useful for a community must be a social affair. Thus, the use of larger trees was often off limits to common practitioners, and those that rode waves were left to work with smaller portions.

The modern short board, which dominates contemporary surfing, represents an innovation, a revival, and an obfuscation of a previous cultural gesture that predates the longboard, typically placed before the shortboard in Western surfing narratives. The longboard was an adaptation of the *olo* and was initially in Western surfing discourse merely referred to as a surfboard before the supposed short board revolution recaptured the ethos of the *alaia*. Once again, Western culture presents existing Indigenous territory as a discovery. Dawson (2017) and Laderman (2014) agree that “post-annexation (1898) Hawaiians planted ‘the roots of global surf culture’ before considering how surfboards became imperial implements” (Dawson, 2017). The *alaia* and the contemporary shortboard as well as the gestures required for their navigation are symbolic reminders of this history.

The act of riding particular boards at specific sites, by certain practitioners, indicates status and identity achieved through meaningful movement much as seafaring did within wider community structures. As *he‘e nalu* morphed into surfing, so did its enjoyment and participation. It changed from an activity of the “many” to one that is enjoyed primarily by the unique or special. Waves can be considered part of land, breaking due to the interaction of water with the seabed (Chaps. 3 and 4). They therefore can also be considered part of the social constructions of both spaces. Surf zones continue to function as sites of dialog due to the Indigenous practices and colonial pasts involved in the practices being performed. None perhaps are more significant than those along the North Shore of Oahu, notably Pipeline. The names of surf zones along this famous 7-mile shoreline from Haleiwa in the south to Sunset in the north indicate a symbolic regrouping, Gas Chambers, Off the Wall, Log Cabins, Leftovers, and Velzyland, named after Southern California surfer Dale Velzy by John Severson after visiting for a film production (Chap. 13). As they become renamed, U.S. surfers are credited repeatedly as the first to ride the waves at these long-revered sites.

Ben Finney and James Houston compile a list of over 100 identified surf zones throughout the Hawaiian Islands (pp. 28–32). Clark (2011) notes that *Kapuni* on Waikīkī Beach is the first to turn into Canoes—subsequently all the surf zones were given English names by the early 1900s. Just as European explorers claimed to discover unknown lands, provide religious salvation, and introduce scientific knowledge, U.S. surfers claimed to recover the abandoned art of riding waves. Brown narrated in *The Endless Summer* (1966) that in the 1950s, intrepid surfing explorers such as John Kelly, George Downing, Gregg Noll, Pat Curren, Peter Cole, and Fred Van Dyke were the first to ride Waimea Bay, perpetuating similar narratives of Western discovery (Chap. 13). Ingersoll affirms, based on Hawaiian periodicals and oral histories or *mo‘olelo*, that Indigenous Hawaiians were the first who “rode and named the waves at Waimea Bay and elsewhere” (Ingersoll, 2016). Along with the sites of the surf zones, the knowledge associated with the practices of riding waves becomes adapted according to new meanings. Clark (2011), working from Hawaiian sources previously mentioned, produced a Hawaiian and English language reference work containing a glossary of over 1000 Hawaiian terms related to the practice of *he‘e nalu*. This surviving knowledge represents a fraction of the meaning and importance placed on the Indigenous practice.

2.4 Surfing and Settler Contexts

Surfing establishes a space where competing conceptions of culture, community, and identity play out. Walker notes that riding waves creates contested social spaces where cultural, identity, and social production can be challenged and affirmed. The practices of riding the waves continue to function symbolically according to the geopolitical structures of the land settlements nearby. For example, surfing is

marked as a distinctly Californian endeavor consisting of a series of innovations including the wetsuit and leash. Assembly Bill 1782, which establishes surfing as the official sport of the State of California, declared surfing "an iconic California sport" and listed many aspects of surfing culture and technology that were pioneered in California (Moser 2022). California state identity therefore is in part funneled through an Indigenous activity of riding waves developed in the central and western Pacific Ocean. The symbolization noted here is drawn from a constellation of attitudes and values that shape the material reality of the *ka po'ina nalu*.

By 1895, Nathaniel Emerson lamented the decline of this vibrant cultural past time, writing that he "cannot but mourn its decline," as "today it is hard to find a surfboard outside of our museums and private collections" (Warshaw, 2010, 34). The practices of riding waves in Indigenous forms are celebrated while being simultaneously removed through discourse. Museum displays, imagery, and narrative replace materiality. The theme of absence within the historiography of riding waves is not neutral but indicative of the ways in which colonial and imperial contexts control. Indigenous perspectives expressed through grand and everyday practices reflect an untold loss, and *he'e nalu* is but one example; however, the practice continued, like many others including weaving, dance, language, and seafaring.

Most agree, such as Richard Kenvin (2014), Laderman (2014), Walker (2011, 2017), Ingersoll (2016), and others, that surfing was introduced to North America when visiting sovereign princes of Hawai'i, Jonah Kuhio Kalaniana'ole, David La'amea Kahalepouli Kawananakoa, and Edward Abnel Keli'iahonui, rode the waves at the mouth of the San Lorenzo River in Santa Cruz County, California, around 1885 (Fig. 2.3). As sovereign *ali'i* visitors, they had a royal *olo* board shaped from a local timber mill for the undertaking (Kenvin, 2014). Surfing in California began with sovereign Hawaiian royalty riding traditionally noble boards; this moment is a cultural instance of importance and an interaction between nations.

The board and practice of riding functioned as an exchange of global politics. The use of boards in waves became a vehicle of diplomatic exchange. A plaque remains in commemoration at Steamer Lane, a popular surf spot now at the heart of Northern California surfing culture. A similar yet contradicting plaque in Redondo Beach, California, indicates that George Freeth was the "first surfer in the USA" in 1907. Freeth was employed to bring surfing from Hawai'i to California specifically for the purposes of promoting the domestic resources of water and waves. The practice of surfing functions primarily as a royal and sport endeavor, leaving out much of its larger societal functions and epistemological associations. The aspects of plant harvesting, board carving, tool construction, and the close fabrication of a board for one's own use were also severed from the larger cultural network of meaning in these narratives.

Today both Huntington Beach and Santa Cruz compete for the moniker of Surf City USA as surfing remains a form of economic and cultural capital that plays a role in the creation of a national identity. National recognition and the political and cultural status of Hawai'i regarding surfing on the global sporting stage are a contested area. Surfing is firmly situated as a sport pursued by individuals seeking excellence or proficiency, yet this takes away from the communal aspects of

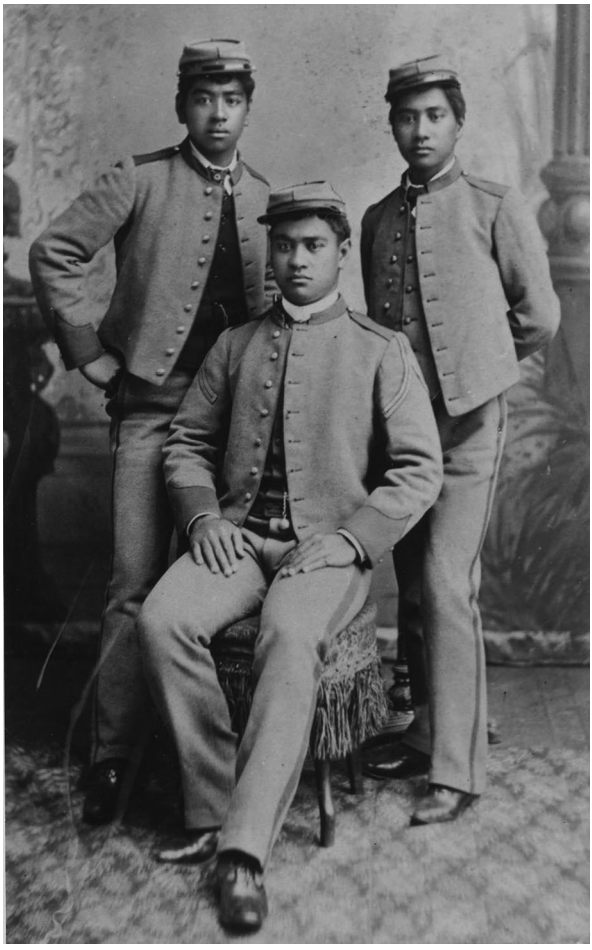

Fig. 2.3 Jonah Kuhio Kalaniana‘ole, David La‘amea Kahalepouli Kawananakoa, and Edward Abnel Keli‘iahonui the sovereign princes of Hawai‘i pictured in 1886 in uniform while attending military school in San Mateo County, California. (Source: Hawaii State Archives Call Number: PP-97-2-011)

seafaring and surfing; however, in and out of national and sports frameworks, surfing functions as a site of cultural capital and social resistance. Hawaiian surfer Carissa Moore has won the women’s Surf World Championships and an Olympic gold medal, yet like other Hawaiian competitors, she surfs under the Hawaiian flag in the World Surf League but not the Olympics, as in the latter people can only compete under a national, UN-recognized country flag. This is also true in the International Surfing Association and the National Scholastic Surfing Association, which “define Hawai‘i as an independent region” (Walker, 2017). These recognitions fall within the sport of king’s framework and unfold as a series of tensions involving Indigenous agency and the legacies of colonialism.

As the accomplishments of Freeth and Duke Kahanamoku are framed according to national and sport optics, they help propel surfing, swimming, Hawai‘i, and the USA onto the global stage. They both gave surfing demonstrations around the world, and Kahanamoku won Olympic gold medals for the USA. Walker remarks

that Hawaiian representation as semiautonomous in international competitions, outside of the Olympics, enables "Hawaiian surfers to develop unique and empowering identities," which have functioned in the context "of longstanding cultural, political, and economic struggle evolving from a 150-year history of colonization" (2017). Along with Hawai'i, the World Surf League also recognizes Guam as an independent region which, according to the United Nations Special Committee on Decolonization, is 1 of 17 entities that remain under control by UN member states, including the USA, the largest territorial power (Statham, 2002). As the sports centric framework unfolds, so do notions of national identity and sovereignty, which furthers the sport of kings on the global stage.

The dialog between nations was performed in the water and continued through discourse as the act of riding waves was transformed through symbols to fit within the interests of nation-states and sports centric productions. The tensions between *he'e nalu* and its constructions as surfing are present in these early and more contemporary moments. Western chroniclers cataloged a certain way of looking at the practice that rewrites its corporeality, yet this rearrangement often entailed a symbolic razing. *He'e nalu* was in practice in 1866 when Mark Twain visited Hawai'i and observes practitioners riding waves on a *papa he'e nalu* or "board for wave-sliding" (Warshaw, 2010, 32). The practice is so unfamiliar to Twain that he remarked, "none but the natives will ever master the art" (Winchester, 2015). Three years later, in 1898, Hawai'i was forcefully annexed by the USA, and surfing reemerged as a series of gestures with new cultural and national connotations.

South Carolina transplant, Alexander Hume Ford, sought to establish a European and U.S. vision of surfing along with statehood. The two unfolded together with each serving the constructions of the other. Ford, like many others endowed with a similar colonial disposition, believed that foreigners could learn all the cultural secrets of the Hawaiian surfer. He formed organizations and publications that served the interests of settler-colonial communities. Surfing was placed on resort, airline, and tourist brochures serving the spread of a national identity from the mainland to the islands. Many years later, popular films such as *The North Shore* (1987) echoed this narrative as a surfer from landlocked Arizona masters the unruly surf zones of O'ahu's North Shore. Surfing subsequently spread around the world with Europeans and Americans as inheritors of an abandoned Hawaiian practice, who go on to become experts of the craft (Walker, 2011, 95; 32). As surfing moves from its cultural center in Hawai'i to California, it subsequently becomes a literally floating signifier of U.S. imperial culture.

London, on a trip through the Pacific Ocean, stopped in Hawai'i in 1908. After meeting Ford and Freeth, London experienced and cataloged his experience riding waves. His attitude toward the practice, due to the encouragement of Ford, was decidedly different from Twain's; as London declared in *The Cruise of the Snark* (2017), "The Snark shall not sail from Honolulu until I, too, wing my heels with swiftness of the sea," referring to the act of riding waves. The article in which London described his attempts to ride waves on boards was originally titled, "A Royal Sport: Riding the South Sea Surf." Here he noted the royal conception of the

practice and perhaps paralleling the loss of sovereignty with the perceived loss of a prominent cultural practice (Winchester, 2015).

London and other Westerners, as Dawson (2017) states, “perceived surfing as people’s attempt to conquer nature.” London (2017) was indebted to Ford as the possessor of Indigenous wisdom, writing, “I am always humble when confronted by knowledge. Ford knew.” Furthermore, his knowledge is gained without a teacher as London (2017) embellishes, “he had no one to teach him, and all that he had laboriously learned in several weeks he communicated to me in half an hour.” London was actively searching for new experiences and cultural perspectives for readers to absorb. On his way to the Hawaiian Islands, he wrote a similar statement after learning bits of information about celestial navigation, an artform and science at the heart of Austronesian seafaring. These narratives seize not just land but also the social spaces that stemmed from deeply engrained aquatic relationships and knowledge.

Sam Low (2013) notes that Ford intended to turn Hawai‘i into a “white man’s state” creating a “beckoning paradise for the growing number of Pacific tourists,” establishing the islands “as a crucial outpost of American global power.” Ford formed the *Outrigger Canoe Club* and intended to develop “the great sport of surfing in Hawai‘i.” The name of this club reflects the English name change of the nearby surf zones such as canoes. This all-white club is commonly recognized as surfing’s first organization, outside of the marginalized origins of *he‘e nalu* (Warshaw, 2010). The group promoted not only surfing as they saw it, but Western segregation. As Franz Fanon (1963) concludes in *Wretched of the Earth*, no colonial system draws its justification from the fact that the territories it dominates are culturally nonexistent. Ingersoll (2016) states that the organization functioned as a means of exclusion, which provided a space where only some could enter and “engage in a paradoxical act of negation and appropriation” by participating in an Indigenous practice while excluding an Indigenous population. The dominant narrative, like many colonial tales of discovery and mastery, indicated that riding waves was all but lost, if it were not for the revival of it by Ford, London, and other Westerners. There is a dwindling of many local pursuits, yet if there is a revival of the practice after colonial and imperial encounters, it is already underway by Indigenous practitioners of *he‘e nalu*.

In 1911, a group of Hawaiian surfers, notably Kahanamoku, formed the *Hui Nalu Club* or *Surfing Riding Club* as an organization of Indigenous agency. The Hawaiian language name of this organization refers to the early signifiers of the practice discussed in this text. This collective was a political response to what was becoming the racist infrastructure of surfing, which marks surfing as a form of social advocacy. It is a form of empowering optics that responds to the segregation and subordination suffered at the hands of what was becoming a society based on Hawaiian oppression. Today the physical spaces and bodies within mainstream contemporary surfing remain “phenotypically White” as Brenda Wheaton reminds us (Wheaton, 2017). Such homogeneity according to structural forces of power that involve subject positionality is created intentionally and is direct reflection of the histories discussed in this chapter.