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# Rainbow Serpents and Boiling Springs: Indigenous Sovereignty and the Fight for Groundwater in the United States and Australia

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Around the world, Indigenous people are preparing for futures of climate uncertainty and resource shortages. Indigenous communities are looking to the past and seeking guidance from their traditions – diverse systems of knowledge that change over time – so that they and future generations might nurture connections to the “deep time” of geological and human histories. In this essay we examine how the Wangan and Jagalingou Family Council in Australia and the Agua Caliente Band of Cahuilla Indians in the United States have taken long-term views on ecological sustainability and sovereignty. We focus on these two Indigenous communities on opposite sides of the Pacific Ocean because they are among the highest-profile battles over ancient groundwater in the past decade. Set against a backdrop of global settler state interference and exploitative economic practices, both cases reveal how the concept of kinscapes – or a shared sense of relatedness to interconnected ecosystems, histories, and places (or nodes) of belonging – can sharpen our understanding of environmental stewardship and its importance to Indigenous sovereignty. Whereas mining corporations and settler governments continue to make decisions with short- to medium-term objectives in mind, Wangan and Jagalingou and Agua Caliente leaders have used legal battles over groundwater to underscore their spiritual and physical connectedness with local environments. Like Indigenous communities around the world, the Wangan and Jagalingou Family Council and the Agua Caliente Band of Cahuilla Indians are making ontological choices by asserting their sovereignty through environmental stewardship.

The Wangan and Jagalingou people of central Queensland have a relationship with water that extends back tens of thousands of years. A Wïirdi-speaking people, the Wangan and Jagalingou view water not only as essential to sustaining life, but also as possessing spiritual and medicinal qualities. Water connects people to Country, a concept that Aboriginal Australians

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use to refer to their physical, spiritual, and historical relationships with their ancestors and that binds them to kinscapes – the web of relationships that connect an Indigenous community *with* the lands, rivers, and groundwater of their homelands. The Wangan and Jagalingou view one source of groundwater as more sacred than all others: Doongmabulla Springs. In the mists of a time beyond human memory, Doongmabulla Springs, located about 130 miles northwest of the central Queensland mining town of Clermont, gave birth to Wangan and Jagalingou people and their Country. Its Waters flow through and beneath the land, creating kinscape connections with more-than-human relatives (birds, trees, plants, insects, and more). The Wangan and Jagalingou origin story explains these connections through Mundunjudra, the Rainbow Serpent. Mundunjudra is a spiritual ancestor who emerged from the watery depths of Doongmabulla Springs and traveled across Country, giving shape to the springs, the rivers, the plains, and the mountains. Mundunjudra connects the Wangan and Jagalingou to their origins and reminds them of their responsibility to care for the lands and waters of their Country.<sup>1</sup>

Almost eight thousand miles from Doongmabulla Springs, on the opposite side of the Pacific Ocean, the Agua Caliente Band of Cahuilla Indians, based in southern California in the United States, also place water at the center of their origin narratives and kinship system. Cahuilla creation stories remind people about the importance of groundwater in nurturing the health and well-being of community members. Their creation story states that at the beginning, all was dark and empty. Túkmiat and Ámna'a came together in powerful flashes of lightning. Túkmiat, the Night, and Ámna'a, the Greatness of All Things, created an embryo – num'yum'a'wit – after three attempts. This embryo split in two, giving birth to twin boys – Múkat and Témayawet – who floated in darkness. Soon, Múkat pulled tobacco from his heart, while Témayawet removed a pipe from his heart and the twins began to smoke. Shortly thereafter, Múkat and Témayawet took the centerpole of the world, the hu'ya'na'wet, and stood it upright by placing spiders and snakes at its base. The twins balanced the staff by creating the earth, and ultimately put in place water and supernatural beings to give balance to the world. When Creator died the people embarked on a great migration, only to return to their southern California homelands to find a changed world. For over five thousand years, the Cahuilla, members of the Uto-Aztecan language family, have recounted versions of this origin story as they care for the

<sup>1</sup> James Bradley, "How Australia's Coal Madness Led to Adani," *The Monthly*, April 2019, [www.themonthly.com.au/issue/2019/april/1554037200/james-bradley/how-australia-s-coal-madness-led-adani#mtr](http://www.themonthly.com.au/issue/2019/april/1554037200/james-bradley/how-australia-s-coal-madness-led-adani#mtr).

environment.<sup>2</sup> Today, the Agua Caliente Band of Cahuilla Indians remain connected with the lands and waters of their southern California home, breathing new life into traditions centered on a spring that they call Se-khi, “boiling water.”<sup>3</sup>

Creation stories sustain the Wangan and Jagalingou Family Council (W&J Family Council) and the Agua Caliente Band of Cahuilla Indians, just as they give Indigenous people around the world a sense of collective identity that is tied with place. The above creation narratives are specific examples of how Indigenous communities nurture stories that both give contemporary meaning and inspire a deep sense of historical responsibility for environmental stewardship. This is “trans-Indigenous” work, to borrow from literary scholar Chadwick.<sup>4</sup> It is work that centers Indigenous ways of knowing to empower Indigenous communities to care for their local environment – a living kinscape filled with stories, responsibilities, and relationships. The application of Indigenous ecological knowledge, or intimate bodies of knowledge that are connected to a deep connection to place, constitutes the basis for Indigenous assertions of sovereignty in many parts of the world. Indigenous ecological knowledge is an ongoing process, connecting Indigenous peoples with a sense of community that includes the natural world. Recognizing this, it becomes possible to see trans-Indigenous environmental work braiding local kinscape relationships into global networks of Indigenous knowledge through social media networks and institutional platforms such as UNESCO or the Indigenous Environmental Network, or through government-to-government relationships. Indigenous networks provide both emotional support and “tool kits” to support local Indigenous communities in their stewardship of, and relationship with, kinscape environments.<sup>5</sup>

<sup>2</sup> Katherine Siva Sauvel and Eric Elliot, 2004. *’Isill Héqwas Wáxish/A Dried Coyote’s Tail*, 2 vols., Volume I (Banning, CA: Malki Museum Press), 24–28, 32, 70–71; Paul Apodaca, “Tales of Native California,” in Blake Allmendinger, ed., *A History of California Literature* (New York: Cambridge University Press, 2015), 19–20; Sean Christian Milanovich, “The Treaty of Temecula: A Story of Invasion, Deceit, Stolen Land, and the Persistence of Power, 1846–1905,” PhD dissertation, University of California, Riverside, 2021, 3–6.

<sup>3</sup> Vyola J. Ortner and Diana C. Du Pont, *You Can’t Eat Dirt: Leading America’s First All-Woman Tribal Council and How We Changed Palm Springs* (Palm Springs: Fan Palm Research Project, 2011), 45–46.

<sup>4</sup> Chadwick Allen, *Trans-Indigenous: Methodologies for Global Native Literary Studies* (Minneapolis: University of Minnesota Press, 2012), xii.

<sup>5</sup> UNESCO, “Local and Indigenous Knowledge Systems (LINKS),” <https://en.unesco.org/links>; US Climate Resilience Toolkit, <https://toolkit.climate.gov/tool/indigenous-health-indicators-tool>; Indigenous Environmental Network, [www.ienearth.org/about](http://www.ienearth.org/about); Catalyst Project, “Anti-racism for Collective Liberation,” <https://collectiveliberation.org>; Vicente M. Diaz, “Oceania in the Plains: The Politics and Analytics of Transindigenous Resurgence in Chuukese Voyaging of Dakota Lands, Waters, and Skies in Mini Sota

Wiraduri Nyemba scholar Virginia Marshall provides a clear example of how Indigenous people articulate the importance of these kinscape networks. She argues that Aboriginal Australians continue to use kinship terms to refer to a community's spiritual connections to water and the "web of interests" that flow from it.<sup>6</sup> Connection in, and with, local ecosystems is the essence of kinscape relationships, for the severing of connections to rivers, coastlines, mangroves, and scores of other microclimates can result in profound trauma. Recognizing this, Indigenous people acknowledge that their ancestor developed intimate kinship ties to the flow of water.<sup>7</sup> It is why they continue fighting to preserve sacred connections to water. In Maui, for instance, Native Hawaiians work to undo the environmental damage caused by over a century of intensive agricultural practices that saw colonizers implement a "ditch system" that redirected water from aquifers to sugarcane fields. The push to place aquifers under the control of Native Hawaiians is part of a trans-Indigenous movement of environmental stewardship playing out at a local level throughout the world.<sup>8</sup>

In their respective kinscape environments, the Wangan and Jagalingou and Agua Caliente Band of Cahuilla Indians are part of this trans-Indigenous movement. As we discuss in the following pages, they have confronted renewed intrusions from settler states that tend to compound the destructive cultural and environmental impacts of settler colonialism's "slow violence" of extractive capitalism.<sup>9</sup> Indigenous communities are forced to take creative steps to forcefully critique the settler nation's economic excesses and harmful environmental practices. This is, out of necessity, ethical work. As Dene scholar Glen Coulthard argues, Indigenous "cultures have much to teach the Western world about the establishment of relationships within and between

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Makhoche," *Pacific Studies*, 42, 1–2 (April–Aug. 2019), 1–44; James D. Ford, Nia King, Eranga K. Galappaththi, Tristan Pearce, Graham McDowell, and Sherilee L. Harper, "The Resilience of Indigenous Peoples to Environmental Change," *One Earth*, 2, 6 (June 2020), 532–43; Indigenous Climate Monitoring Toolkit, <https://indigenouclimatemonitoring.ca>. On Indigenous ecological knowledge see Fikret Berkes, *Sacred Ecology*, 4th edn (New York and London: Routledge, 2018), 3–5.

<sup>6</sup> Virginia Marshall, *Overturing Aqua Nullius: Securing Aboriginal Water Rights* (Canberra: Aboriginal Studies Press, 2017), 11, 15.

<sup>7</sup> See, for example, Heather Roller, *Amazonian Routes: Indigenous Mobility and Colonial Communities in Northern Brazil* (Stanford, CA: Stanford University Press, 2014); Daniel A. Grant, "'Whenever We Exist on Any Land, We Know It Is Our Country': Cocopa Mobility and the Colorado River in the U.S.–Mexico Borderlands, 1887–1936," *Western Historical Quarterly*, 54, 1 (Spring 2023), 31–50.

<sup>8</sup> Jonathan L. Scheuer and Blanca K. Isaki, *Water and Power in West Maui* (Lahaina: North Beach–West Maui Benefit Fund, 2021).

<sup>9</sup> Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge, MA: Harvard University Press, 2011), 71, 97.

peoples and the natural world.”<sup>10</sup> Understanding Indigenous resistance to the settler state and global corporate exploitation of “natural resources” is therefore no mere academic exercise; it reveals how the politics of Indigenous storytelling, sovereignty, and environmental stewardship intersect and are part of conversations – “trans-Indigenous” dialogs – that begin in local kinscapes and ultimately cut across the borders of settler states to critique the legal, political, and economic logics for settler colonialism.<sup>11</sup>

Our goal in this essay is to enrich our understanding of these trans-Indigenous dialogs by emphasizing how the Wangan and Jagalingou and Agua Caliente Band of Cahuilla Indians are part of deep environmental histories that begin, in their respective cases, with groundwater. Groundwater connects people to living kinscapes filled with spiritual and physical meaning, and to more-than-human kin. We start our analysis by unpacking the kinscape framework and discussing how our work builds on the ethnohistorical methodologies of Sami Lakomäki, Nicole St-Onge, and Brenda MacDougall. We do this while acknowledging that settler colonialism continues to press on Indigenous communities, a fact of twenty-first-century life linked to colonial histories of pollution and the exploitation of the natural world. The global reach of settler colonialism brings into focus the intertwining of Indigenous environmental stewardship and sovereignty and their profound historical, contemporary, and future significance. Next, the essay shifts to compare how the Wangan and Jagalingou and Agua Caliente Band of Cahuilla Indians draw on their deep histories to defend groundwater vital to bodily and spiritual well-being. Our analysis culminates with the 2016 case of *Burrabung v. State of Queensland* in the Australian High Court, and the Ninth Circuit Court of Appeals case of *Agua Caliente v. Coachella Water District* in the United States in 2017. These cases unfolded an ocean apart but formed part of a trans-Indigenous defense of sovereignty and groundwater rights with lessons that reach beyond the borders of Queensland and California.

## KINSCAPES, SETTLER COLONIALISM, AND SOVEREIGNTY

We are not the first scholars to use the kinscape framework. Our aim is to expand its methodological reach, showing how ethnohistorians can incorporate kinscapes into a deeper understanding of the flows of trans-Indigenous

<sup>10</sup> Glen Coulthard, “Subjects of Empire: Indigenous Peoples and the ‘Politics of Recognition’ in Canada,” *Contemporary Political Theory*, 6, 4 (2007), 456.

<sup>11</sup> Audra Simpson, “On Ethnographic Refusal: Indigeneity, ‘Voice’ and Colonial Citizenship,” *Junctures*, 9 (Dec. 2007), 67–80; Eve Tuck and K. Wayne Yang, “Unbecoming Claims: Pedagogies of Refusal in Qualitative Research,” *Qualitative Inquiry*, 20, 6 (2014), 811–18. Shino Konishi, “First Nations Scholars, Settler Colonial Studies, and Indigenous History,” *Australian Historical Studies*, 50, 3 (2019), 291–92.

knowledge and how they are applied to address local threats to climate. Sami Lakomäki was one of the first to employ kinscapes in his ethnohistory of the Shawnees. Lakomäki argued that between the early seventeenth century and late nineteenth, Shawnees created “anchorlike nodes” that were “connected by networks of paths and rivers.” These “nodes of living meaning,” to borrow a phrase from Mishuana Goeman (Tonawanda Band of Seneca) are linked by natural “networks” that connect people to a diversity of environmental knowledge and relationships, giving meaning to kinship bonds even as Shawnees continued migrating and resettling.<sup>12</sup>

Nicole St-Onge and Brenda MacDougall expanded on Lakomäki’s insights in their study of Métis identity formation in the context of the nineteenth-century fur trade across the Plains of North America. St-Onge and MacDougall identify mobile Métis communities who developed social networks built on the pooling of geographical knowledge, shared language and religious beliefs, and connection to “an environmental *kinscape*.”<sup>13</sup> These two studies are rare examples of how the kinscape concept enriches historical understandings of flexible and dynamic Indigenous communities and knowledge systems. Most studies of kinscapes are dominated by scholars in medical and genetic research fields, cultural theory, and environmental studies.<sup>14</sup> In the work of Lakomäki and St-Onge and MacDougall, we see an ethnohistorical application of kinscapes as an analytical tool that focusses our attention on Indigenous knowledge of landscapes and waterscapes and how that knowledge is braided through kinship connections among people and places.

Kinscapes encourage us to look beyond historical generalizations because they are particular to a specific Indigenous community’s sense of well-being, of balance with local ecologies, and of embeddedness

<sup>12</sup> Sami Lakomäki, *Gathering Together: The Shawnee People through Diaspora and Nationhood, 1600–1870* (New Haven, CT: Yale University Press, 2014), 33; Mishuana Goeman, “Land as Life: Unsettling the Logics of Containment,” in Stephanie N. Teves, Andrea Smith, and Michelle H. Raheja, eds., *Native Studies Keywords* (Tucson: University of Arizona Press, 2015), 74.

<sup>13</sup> Nicole St-Onge and Brenda MacDougall, “Kinscapes and the Buffalo Chase: The Genesis of Nineteenth-Century Plains Métis Hunting Brigades,” in Brian Frehner and Kathleen A. Brosnan, eds., *The Greater Plains: Rethinking a Regions Environmental Histories* (Lincoln: University of Nebraska Press, 2021), 89–113; Jennifer Adese, Zoe Todd, and Shaun Stevenson, “Mediating Métis Identity: An Interview with Jennifer Adese and Zoe Todd,” *Media Tropes*, 7, 1 (2017), 1–25; Leah Hrycun, “Heart Work: Weaving Relationality into Métis Material Culture Repatriation,” MA thesis, University of Alberta, 2020.

<sup>14</sup> Stefan Timmermans and Sara Shostak, “Gene Worlds,” *Health: An Interdisciplinary Journal of the Social Study of Health, Illness and Medicine*, 2015, <https://doi.org/10.1177/1363459315615394>; Lakomäki, 90, 230.

within place.<sup>15</sup> Insights gained from local knowledge can be shared among different communities across borders and oceans – an ethnohistorical feature of kinscapes that opens an analytical space for Indigenous people to share their understanding about an ethos of care that contributes to trans-Indigenous conversations about sovereignty and environmental stewardship.<sup>16</sup> For the Wangan and Jagalingou and Agua Caliente, community leaders articulate connections to their respective kinscapes and inserted this knowledge into their respective legal cases. Herein lies a methodology that can deepen our understanding of how Indigenous sovereignty and environmental stewardship can both critique and disrupt the legal, political, and economic logics of settler colonialism. In Indigenous communities around the world, sovereignty is understood as an active concept that strives for environmental balance. It emphasizes the importance of listening to a river, or paying attention to fluctuations in the water table. In the United States, Lenape scholar Joanne Barker uses the word “confluence” to describe the links between environmental knowledge and sovereignty. In Australia, the Aboriginal legal scholar C. F. Black makes a similar observation. Black writes about “law stories” as examples of active concepts that connect Indigenous people and the natural world – a world that is not divided by binary logic but flows along spectrums that are living and in a constant state of movement.<sup>17</sup> Indigenous sovereignty is therefore derived from *doing* the work of environmental stewardship. To quote Leanne Betasamosake Simpson, “sovereignty is something that is embodied, visioned, and lived both individually and collectively.”<sup>18</sup> Mohawk scholar Vanessa Watts makes the link between the natural world and Indigenous sovereignty even clearer, arguing that “habitats and ecosystems are better understood as societies from an Indigenous point of view.”<sup>19</sup>

<sup>15</sup> A connection can also be made to *eco soma*, sites at which moving bodies – including human bodies – meet, sense, and experience one another. Petra Kuppers, *Eco Soma: Pain and Joy in Speculative Performance Encounters* (Minneapolis: University of Minnesota Press, 2022).

<sup>16</sup> The 2023 Global Indigenous Youth Summit on Climate Change is one recent example of this. For details see <https://event.unitar.org/full-catalog/global-indigenous-youth-summit-climate-change>.

<sup>17</sup> Joanne Barker, “Confluence: Water as an Analytic of Indigenous Feminism,” *American Indian Culture and Research Journal*, 43, 3 (2019), 1–40; C. F. Black, *The Land Is the Source of the Law: A Dialogic Encounter with Indigenous Jurisprudence* (London and New York: Routledge, 2001), 4, 17, 23–42.

<sup>18</sup> Leanne Betasamosake Simpson, “The Place Where We All Live and Work Together: A Gendered Analysis of ‘Sovereignty,’” in Teves, Smith, and Raheja, 22. See also Enrique Salmon, “Kincentric Ecology: Indigenous Perceptions of the Human–Nature Relations,” *Ecological Applications*, 10, 5 (Oct. 2005), 1327–32.

<sup>19</sup> Vanessa Watts, “Indigenous Place-Thought and Agency amongst Humans and Non-humans (First Woman and Sky Woman go on a European World Tour!),” *Decolonization: Indigeneity & Society*, 2, 1 (2013), 20, 23.

To see landscapes and waterscapes as relatives, as interconnected parts of living kinscapes, situates the basis for Indigenous sovereignty in the flow of the hydrological cycle and the press (long-term) and pulse (short-term) of climate changes. Such a framework is a stark contrast to Western historical traditions, something that makes the Wangan and Jagalingou and Agua Caliente insertion of their ecological and spiritual knowledge into settler state legal proceedings such powerful moments of Indigenous refusal.<sup>20</sup> Western thinking shaped (and shapes) the settler nation's legal foundations in Australia and the United States, most notably through concepts like the doctrine of discovery, *terra nullius* (the land of no one/nobody's land), and *res nullius* (belonging to no one). Western legal thinkers conceived of landscapes and waterscapes in North America as empty of human "civilization." In Australia, settler colonial lawyers saw something similar, describing "debatable land" ripe for boundary drawing and appropriation as "property."<sup>21</sup> Additionally, leaders of government and industry framed waterways, groundwater, and minerals buried deep underground as "resources" integral to the settler state's "growth" and economic "development."<sup>22</sup> In other words, settler colonialism was (and is) built on legal abstractions, political fictions, and the commodification of the living world. This has prompted some scholars to explicitly link pollution with colonialism and settler colonialism with global warming.<sup>23</sup>

Anthropologist Patrick Wolfe famously characterized settler colonialism as "a zero-sum contest over land on which conflicting modes of production could not ultimately coexist." He added that "the primary logic of settler colonialism can be characterized as one of elimination."<sup>24</sup> Wolfe's analysis has informed a generation of settler colonial scholarship. New Zealand historian James Belich has made significant contributions to this work by arguing that transportation technologies made the "mass transfer" and expansion of settler colonies possible.<sup>25</sup> Expanding on Belich, Lorenzo Veracini, arguably the most prominent

<sup>20</sup> Simpson, "On Ethnographic Refusal."

<sup>21</sup> Paul Carter, *The Road to Botany Bay: An Exploration of Landscape and History* (New York: Alfred A. Knopf, 1988), 136; Lindsay G. Robertson, *Conquest by Law: How the Discovery of America Dispossessed Indigenous Peoples of Their Lands* (New York: Oxford University Press, 2005).

<sup>22</sup> Henry Reynolds, *The Law of the Land* (Ringwood, Vic: Penguin, 1987); Allan Greer, *Property and Dispossession: Natives, Empires and Land in Early Modern North America* (New York: Cambridge University Press, 2018).

<sup>23</sup> Max Liboiron, *Pollution Is Colonialism* (Durham, NC: Duke University Press, 2021); Dina Gilio-Whitaker, *As Long as Grass Grows: The Indigenous Fight for Environmental Justice, from Colonization to Standing Rock* (Boston, MA: Beacon Press, 2019), 75.

<sup>24</sup> Patrick Wolfe, "Land, Labor, and Difference: Elementary Structures of Race," *American Historical Review*, 106, 3 (June), 866–905, 868.

<sup>25</sup> James Belich, *Replenishing the Earth: The Settler Revolution and the Rise of the Anglo-World, 1783–1939* (New York: Oxford University Press, 2009).



theorist of settler colonialism, replaces Wolfe's focus on "elimination" with "transfer" to emphasize settler colonialism's "circular" odyssey of reinvention. The settler state, Veracini contends, is constantly remaking itself.<sup>26</sup> Its justification does not come from the living world, as is the case with Indigenous concepts of sovereignty, but is an abstraction, the creation of founding documents and laws that are nourished by the West's liberal traditions and extractive economic practices.<sup>27</sup> Indigenous knowledge of living kinscapes disrupts the legal and economic assumptions that buttress settler colonialism. Indigenous leaders and community spokespeople who articulate such knowledge highlight the ongoing vitality and diversity of Indigenous knowledge systems.<sup>28</sup>

### VIOLENCE TO THE LAND AND WATER

Twenty-first-century battles over groundwater are part of an ongoing history in which Indigenous nations assert their sovereignty and fight to remain connected to their territorial and aquatic kinscapes. Historian Ned Blackhawk (Western Shoshone) helps us understand why these articulations of Indigenous sovereignty are grounded in dynamic connections to environment. Blackhawk describes the colonial violence that ripped Indigenous Nations from their homelands in the American West as "violence over the land." Blackhawk's analysis reframes historiographical discussions about the significance of warfare and violence across the American West. In providing Indigenous perspectives on settler violence, Blackhawk poses profound questions about the moral nature of the United States – a settler state in which violence "became intrinsic to American expansion."<sup>29</sup>

In both Australia and the United States, colonial violence was (and is) also violence *to* land and water. Settler violence has taken many forms. It involved the clearing of forests and grasslands for monocrop agriculture or livestock;

<sup>26</sup> Lorenzo Veracini, *The Settler Colonial Present* (Basingstoke: Palgrave Macmillan, 2010), 33–52, 105–6; Edward Cavanagh and Lorenzo Veracini, eds., *The Routledge Handbook of the History of Settler Colonialism* (London and New York: Routledge, 2016).

<sup>27</sup> Lisa Ford, *Settler Sovereignty: Jurisdiction and Indigenous People in America and Australia, 1788–1836* (Cambridge, MA: Harvard University Press, 2010), 3–5, 97; Lauren Benton and Lisa Ford, *Rage for Order: The British Empire and the Origins of International Law, 1800–1850* (Cambridge, MA: Harvard University Press, 2016), 13; Ann Curthoys and Jessie Mitchell, *Taking Liberty: Indigenous Rights and Settler Self-Government in Colonial Australia* (Cambridge: Cambridge University Press, 2018); Marilyn Lake, *Progressive New World: How Settler Colonialism and Transpacific Exchange Shaped American Reform* (Cambridge, MA: Harvard University Press, 2019).

<sup>28</sup> Tim Rowse, "Indigenous Heterogeneity," *Australian Historical Studies*, 43, 3 (2014), 297–310; Konishi, "First Nations Scholars."

<sup>29</sup> Ned Blackhawk, *Violence over the Land: Indians and Empires in the Early American West* (Cambridge, MA: Harvard University Press, 2006), 5, 9.

draining swamps and diverting rivers (and eventually damming them); and opening vast chasms in the Earth's surface to mine for minerals such as gold, copper, and coal; and it included claiming and renaming parts of the living Earth. Scholars have referred to this violence to the land as "soft violence" and "slow violence."<sup>30</sup> Both terms highlight how settler states oversee unequal power relationships by perpetuating the impacts of genocide, ethnocide, and ecocide – evident in acts of mass extermination, the removal of Indigenous children and placing them in boarding schools in both Australia and the United States, and the commodification of landscapes and waterscapes that constitute sacred kinscapes.

The Wangan and Jagalingou are part of the oldest continuous human civilization on the oldest continent on Earth. The state of Queensland, located in the northeastern corner of Australia, is part of a geological history stretching back 4.4 billion years. Queensland's archives include more than words in log-books, letters, and government statutes; the sources for understanding the past lay buried in deep geological layers formed eons before the dinosaurs, and long before the oldest human custodians of Country first drank from groundwater springs. The enduring significance of groundwater to Indigenous Australians has not attracted the level of historiographical attention garnered by studies of oceans and rivers.<sup>31</sup> Similarly, North American historians have often taken a Braudelian approach, focussing on geography, politics, and economics over vast sweeps of history, and focussed on Indigenous people in relation to oceans and seas.<sup>32</sup>

<sup>30</sup> Tania Penovic, "Undermining Australia's International Standing: The Failure to Extend Human Rights Protections to Indigenous Peoples Affected by Australian Mining Companies' Ventures Abroad," *Australian Journal of Human Rights*, 11, 1 (2005), 71–118; Katherine A. Trebeck, "Tools for the Disempowered? Indigenous Leverage over Mining Companies," *Australian Journal of Political Science*, 42, 4 (2007), 541–62; Nixon, *Slow Violence*; Anna Stanley, "Resilient Settler Colonialism: 'Responsible Resource Development,' 'Flow-Through' Financing, and the Risk Management of Indigenous Sovereignty in Canada," *Environment and Planning*, 48, 12 (2016), 2422–42.

<sup>31</sup> Lynette Russell, *Roving Mariners: Australian Aboriginal Whalers and Sealers in the Southern Oceans, 1790–1870* (Albany: SUNY Press, 2012); Ruth A. Morgan, *Running Out: Water in Western Australia* (Crawley: UWA Publishing, 2015); Grace Karskens, *People of the River: Lost Worlds of Early Australia* (Crows Nest, NSW: Allen & Unwin, 2020); Emily O'Gorman, *Wetlands in a Dry Land: More-than-Human Histories of Australia's Murray–Darling Basin* (Seattle: University of Washington Press, 2021).

<sup>32</sup> Joshua L. Reid, *The Sea Is My Country: The Maritime World of the Makahs* (New Haven, CT: Yale University Press, 2015); Andrew Lipman, *The Saltwater Frontier: Indians and the Contest for the American Coast* (New Haven, CT: Yale University Press, 2015); Nancy Shoemaker, *Native American Whalers and the World: Indigenous Encounters and the Contingency of Race* (Chapel Hill: University of North Carolina Press, 2015); Jack E. Davis, *The Gulf: The Making of an American Sea* (New York: Liveright, 2017);

Wangan and Jagalingou people understand that settler colonial violence has taken many forms in Australia since the late eighteenth century. From the moment the British invaded Gadigal lands in January 1788, violence has scarred the landscape, polluted rivers, and traumatized Indigenous communities. Smallpox epidemics stole the lives of Elders who cared for the land and water. When British farmers and pastoralists fenced traditional lands, Aboriginal people viewed their actions as a violent assault.<sup>33</sup> And when mining companies began extracting “natural resources” from the earth (beginning with coal mining in Newcastle, north of Sydney, in the 1790s) they polluted creeks, springs, and rivers – violence compounded by the felling of trees that many Aboriginal people viewed as sacred.<sup>34</sup> This violence reshaped landscapes and waterscapes, creating what Bundajung woman Judy Atkinson refers to as “trauma trails,” a phrase that reflects the physical and psychological trauma that British colonizers visited upon Indigenous Australians and their Country.<sup>35</sup>

In Queensland, Aboriginal communities experienced acute forms of trauma at the hands of settlers, miners, pastoralists, law enforcement, and government officials. Settler groups violently removed Aboriginal people from their homelands, and in some cases branded them to assert control or ownership over Indigenous workers.<sup>36</sup> Scottish-born rancher Thomas Petrie, for example, branded the letter “P” on a number of Indigenous laborers.<sup>37</sup>

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Matthew Bahar, *Storm of the Sea: Indians and Empires in the Atlantic's Age of Sail* (New York: Oxford University Press, 2019).

<sup>33</sup> Bill Gammage, *The Biggest Estate on Earth: How Aborigines Made Australia* (Sydney: Allen & Unwin, 2011), 123–24, 127, 133.

<sup>34</sup> Karskens, 179–82; S. V. Ciriacy-Wantrup and Richard C. Bishop, “Common Property as a Concept in Natural Resources Policy,” *Natural Resources Journal*, 15 (1975), 713–27; Edella Schlager and Elinor Ostrom, “Property-Rights Regimes and Natural Resources: A Conceptual Analysis,” *Land Economics*, 63, 3 (Aug. 1992), 249–62; Michael Cathcart, *The Water Dreamers: The Remarkable History of Our Dry Continent* (Melbourne: The Text Publishing Company, 2009), 31–32, 35–36; Mattias Ahren, *Indigenous Peoples' Status in the International Legal System* (New York: Oxford University Press, 2016), 7, 16–17.

<sup>35</sup> Judy Atkinson, *Trauma Trails, Recreating Song Lines: The Transgenerational Effects of Trauma in Indigenous Australia* (North Melbourne: VIC: Spinifex Press, 2002), 23–27.

<sup>36</sup> *Mackay Mercury and South Kennedy Advertiser*, 14 Feb. 1874, 2; *Northern Argus*, 28 March 1874, 3; Henry Reynolds, *The Other Side of the Frontier: Aboriginal Resistance to the European Invasion of Australia* (Sydney: UNSW Press, 1981), 85; Dawn May, *Aboriginal Labour and the Cattle Industry: Queensland from White Settlement to the Present* (Cambridge: Cambridge University Press, 1994), 40–41; Raymond Evans and Bill Thorpe, “Indigenocide and the Massacre of Aboriginal History,” *Overland*, 163 (Winter 2001), 21–39; Tim Rowse, “The Moral World of the Native Mounted Police,” *Law and History*, 5, 1 (2018), 1–23.

<sup>37</sup> Tom Petrie, *Tom Petrie's Reminiscences of Early Queensland* (Brisbane: Watson, Ferguson & Co., 1904), 3, 41–45, 145; Evans and Thorpe, 21–39; Penny van Toorn, “Slave Brands or

In still other cases, individual acts of murder revealed the dual violence against Aboriginal bodies and Indigenous landscapes. In March 1876, “Jemmy,” a twenty-two- or twenty-three-year-old “station black boy,” was murdered by members of the Native Mounted Police (NMP). The NMP constituted a constabulary of Aboriginal law enforcement officers overseen by white superiors. Aboriginal communities viewed members of the NMP as “devils.” Indeed, the NMP had a reputation for extreme violence and cruelty. “Jemmy,” who worked as a farmhand on the Detley Station, about forty-seven miles from the central Queensland town of Clermont, experienced a fatal outburst of NMP violence. While it is true that the livestock at Detley grazed and trampled the landscape, transforming it in the process, no clear rationale for the NMP attack on “Jemmy” was ever given. What is clear is that “Jemmy” lived on the margins of settler society, his employment at Detley being a personal attempt to alleviate the poverty that had stalked him from birth. The NMP’s assault on “Jemmy,” and his death from the injuries he sustained, served as a reminder of the multiple layers of violence remaking Aboriginal Queensland.<sup>38</sup>

By the 1890s, political efforts to stem racial violence led to Queensland’s Aborigines Protection and Restriction of the Sale of Opium Act of 1897, paving the way for future legislation designed to create a reservation system that segregated Indigenous people from white society.<sup>39</sup> Under the direction of government officials, and with the support of missionaries, Indigenous children were taken from their families and placed in mission or boarding schools. The system severed kinship bonds and deepened disconnection from kinscapes felt by whole generations of Aboriginal people in Queensland.<sup>40</sup>

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Cicatrices? Writing on Aboriginal Skin in ‘Tom Petrie’s Reminiscences of Early Queensland,’” *Biography*, 31, 2 (Spring 2008), 223–44.

<sup>38</sup> “Jemmy” [Aboriginal], Inquest, Clermont Police District, 18 March 1876, Item ID ITM2723751, Queensland State Archives, Brisbane, Australia; Arthur Laurie, “The Black War in Queensland,” *Journal of the Royal Historical Society of Queensland*, 6, 1 (1959), 155–73.

<sup>39</sup> Raymond Evans, “Queensland’s First Aboriginal Reserve,” *Queensland Heritage*, 2, 4 (1971), 26–38; Judith McKay and Paul Memmott, “Staged Savagery: Archibald Meston and His Indigenous Exhibits,” *Aboriginal History*, 40 (Jan. 2016), 181–203; Cheryl Taylor, “Constructing Aboriginality: Archibald Meston’s Literary Journalism, 1870–1924,” *Journal of the Association for the Study of Australian Literature*, 2 (2003), 121–39. David Graeber, *The Utopia of Rules: On Technology, Stupidity, and the Secret Joys of Bureaucracy* (Brooklyn and London: Melville House, 2016); Michael Elliot, “Democratic Opening and Closure: Struggles of (De)legitimation in the Settler Colony,” *Contemporary Political Theory*, 19 (2020), 83–104.

<sup>40</sup> Raymond Evans, *A History of Queensland* (Cambridge: Cambridge University Press, 2007), 140.

Violence to specific landscapes and waterscapes in the twentieth and twenty-first centuries has proven to be as ubiquitous as “violence over the land” in the nineteenth century. These different, albeit intersecting, forms of violence underscore how global structures of settler colonialism have continued to terrorize and traumatize Indigenous communities. Yet Indigenous Queenslanders have found ways to remain connected to Country, to their kin-scapes. Cattle may have eaten and trampled native grasses, monocrop agriculture denuded soils, and miners ripped through coal seams or extracted gold from beneath the ground, but Aboriginal people still found ways to see sacred spaces that connected them to the ancestors. Along the Belyando river in central Queensland, local community members continued traditional burial and bereavement practices.<sup>41</sup> In 1927, Fred King, the manager of Bulliwahha Station outside Clermont, stumbled across the remains of an Aboriginal man and woman in a hollow tree.<sup>42</sup> The couple had been interred in a “burial cylinder,” a practice that archaeologists date back to at least a thousand years before the present (BP). These types of burial practice provide insight into the socially and culturally complex societies that existed in central Queensland before the British invasion. They also reveal the determination of Aboriginal people to renew connections to place, to ancestors, and to the interconnectedness of human and spirit worlds.<sup>43</sup>

Indigenous communities held on to as many of these traditions as they could. Families shared memories and Elders passed on stories and knowledge of ceremonies to future generations. But it was not easy; twentieth-century Queensland was a profoundly racist state. In the early decades of the century, J. W. Bleakley, the chief protector of Aborigines between 1914 and 1942, worked to prevent all forms of race mixing by insisting on the segregation of Aboriginal from non-Aboriginal populations. As in other parts of Australia, state authorities stole Indigenous children from their families and placed them in boarding schools. The trauma of these decades persisted into the late twentieth century, when a building boom reshaped southeastern Queensland and the rapid growth in mining pressed on the lives of Indigenous communities, like the Wangan and Jagalingou, in rural Queensland.<sup>44</sup>

<sup>41</sup> Edward M. Curr, *The Australian Race*, Volume III (Melbourne: Government Printer, 1887), 26.

<sup>42</sup> *Kyogle Examiner*, 23 Aug. 1927, 1; *Morning Bulletin*, 13 Aug. 1927, 8.

<sup>43</sup> Scott L'Oste-Brown, Luke Godwin, and Mike Morwood, “Aboriginal Bark Burial: 700 Years of Mortuary Tradition in the Central Queensland Highlands,” *Australian Aboriginal Studies*, 1 (Spring 2002), 43–50.

<sup>44</sup> Evans, *A History of Queensland*, 240–42.

On the other side of the world, the ancestors of the Agua Caliente Band of Cahuilla Indians made and remade their connections to the human and spirit worlds. The Cahuilla called on their resilience during the fourteenth and fifteenth centuries, a period of warming temperatures and declining rainfall. During these centuries, Lake Cahuilla dried up, forcing the ancestors to migrate away from the barren lakebeds and into the canyons in search of water and lands that could sustain their agricultural and hunting practices. At that moment of climate change and social upheaval, Cahuilla knowledge of their kinscapes helped them adapt to the flux and pulse of nature as they worked to rearticulate their relationships with each other and with local environments.<sup>45</sup>

Over the ensuing centuries, Cahuilla people cared for the waters and worked with the land of their traditional territories in southern California. The Cahuilla constructed villages around springs, and people fished; experimented with cultigens such as corn, melons, and pumpkins; and used trade routes to exchange goods and ideas with neighboring Indigenous communities.<sup>46</sup> Along the Whitewater river and its tributaries, adjacent to ponds and entries to aquifers, the Cahuilla adapted to the Coachella Valley's lacustrine ecosystems. The ancestors of the Agua Caliente Band of Cahuilla Indians used this water to irrigate their crops, join together in ceremony, practice medicine, and sit together as they etched cultural beliefs in ceramics.<sup>47</sup>

The mountains and canyons of the Coachella Valley shielded the Cahuilla from sustained contact with Europeans from the early sixteenth century and into the nineteenth. South of the Cahuilla, the Spanish "discovery" of Baja California in the 1530s prompted Hernán Cortés to propose a colonial venture that was eventually scrapped. To the Cahuilla, the Spanish posed little threat to their communities during the sixteenth and seventeenth centuries. Other Spanish expeditions, led by the likes of Hernando de Alarcón, Melchior Díaz, and others, amounted to little. It was not until Juan de Oñate's expedition in 1604 and 1605 that Alta California began attracting greater interest from the Spanish. This proved especially true for Jesuit and Franciscan missionaries. In the 1680s, for example, the Jesuit missionary

<sup>45</sup> Lowell J. Bean, *Mukat's People: The Cahuilla Indians of Southern California* (Berkeley: University of California Press, 1972), 10–11, 35, 181.

<sup>46</sup> Wendell H. Oswalt, *This Land Was Theirs* (Mountain View, CA: Mayfield Publishing Company, 1988), 151; Mark Q. Sutton, "Cluster Analysis of Paleofecal Data Sets: A Test of Late Prehistoric Settlement and Subsistence Patterns in the Northern Coachella Valley, California," *American Antiquity*, 63, 1 (Jan. 1998), 86–107.

<sup>47</sup> Philip J. Wilke, *Late Prehistoric Human Ecology at Lake Cahuilla, Coachella Valley, California* (Contributions of the University of California Archaeological Research Facility, 38, 1978), 116; Don Laylander, "The Last Days of Lake Cahuilla: The Elmore Site," *Pacific Coast Archaeological Quarterly*, 53, 1–2 (Winter–Spring 1997), 3, 21.

Eusebio Francisco Kino worked to establish a mission in Baja California.<sup>48</sup> Still, the Cahuilla to the north did not have regular interactions with missionaries until well into the nineteenth century.<sup>49</sup>

Surviving written evidence from the Mexican period of colonial governance between the early 1820s and the mid-1840s suggests that some Cahuilla exercised their agency by adopting a series of religious beliefs that combined select elements of Christianity and Cahuilla traditions. A larger number of Cahuilla learned Spanish, while examples of Spanish-style agriculture and labor practices became more common by mid-century.<sup>50</sup> Colonial pressures impacted Cahuilla politics in the mid-nineteenth century. Beginning in the early 1820s, the Mexican government began making inquiries about the feasibility of an overland route from the Mexican state of Sonora to California. In 1824, Californio José María Estudillo noted the condition of *rancherías* and reported seeing “Los Vernitos” (Little Springs), along with Cahuilla communities well stocked with corn, pumpkins, and melons.<sup>51</sup>

Maintaining access to reliable sources of water was essential to Cahuilla agriculture and, by extension, political authority. For some Cahuilla people, then, external colonial dynamics presented opportunities to gain access to natural resources like water and to raid Mexican *ranchos*, behavior that can be read a number of ways: as resistance to colonial land use practices (or violence to the land), as a survival strategy, or as a means of adapting to changing economic and political dynamics.<sup>52</sup> At the same time, tribal violence escalated as conflicts

<sup>48</sup> Herbert E. Bolton, *Rim of Christendom: A Biography of Eusebio Francisco Kino Pacific Coast Pioneer* (Tucson: University of Arizona Press, 1984; first published 1936); James A. Sandos, *Converting California: Indians and Franciscans in the Missions* (New Haven, CT: Yale University Press, 2004), 52–57, 64–67, 113.

<sup>49</sup> H. R. Harvey, “Population of the Cahuilla Indians: Decline and Its Causes,” *Eugenics Quarterly*, 14, 3 (1967), 187; Bean, 7–10, 167, 319; Max Suter, “Southern California Earthquake during the 1775 Anza Expedition,” *Seismological Research Letters*, 79, 6 (Nov.–Dec. 2008), 877.

<sup>50</sup> Jack D. Ward, “The Cahuilla.” MA thesis, University of Southern California, 1967, 120; Tsim D. Schneider and Lee M. Panich, “Native Agency at the Margins of Empire: Indigenous Landscapes, Spanish Missions, and Contested Histories,” in Lee M. Panich and Tsim D. Schneider, eds., *Indigenous Landscapes and Spanish Missions: New Perspectives from Archaeology and Ethnohistory* (Tucson: University of Arizona Press, 2014), 5–22.

<sup>51</sup> José Remero to Antonio Narbona, 16 Jan. 1824, José Remero Papers, 1824, Bancroft Library, University of California, Berkeley; Agua Caliente Tribal History, [www.aguacaliente.org/acthis.html](http://www.aguacaliente.org/acthis.html).

<sup>52</sup> William D. Strong, “Aboriginal Society in Southern California,” *University of California Publications in American Archaeology and Ethnology*, 26 (1929), 150; George H. Phillips, *Chiefs and Challenges* (Norman: University of Oklahoma Press, 2014; first published 1975), 86, 168; Natale A. Zappia, *Traders and Raiders: The Indigenous World of the Colorado Basin, 1540–1859* (Chapel Hill: University of North Carolina Press, 2014);

from Mexico's fight for independence from Spain spilled into Indigenous communities.<sup>53</sup> The outbreak of the Mexican–American War in 1846 also presented opportunities, with the charismatic Mountain Cahuilla chief Juan Antonio allying with different Cahuilla bands, Californios, Spanish-speaking Criollos, Mestizos, and other Indigenous Californians. Antonio capitalized on regional instability to attack long-time Cahuilla enemies, the Luiseño. Antonio's coalition represented a form of Cahuilla leadership that aimed to use colonial-inspired instability to resolve long-standing intertribal rivalries.<sup>54</sup> In 1847, Antonio used the power that the Cahuilla centralized in his leadership to take a coalition of warriors into battle in what became known as the Temecula massacre. The exact number of Luiseño warriors massacred is unknown; however, Luiseño oral histories put the number at over a hundred dead.<sup>55</sup>

By the mid-nineteenth century, migrants from around the world were pouring into California searching for gold, desecrating rivers and creeks with waste from their camps. California statehood in 1850 led to the ironically named Act for the Government and Protection of the Indians (1850), a piece of legislation that maintained the exploitative *ranchero* labor system and expedited the removal of California Indians from their lands.<sup>56</sup> In 1852, the Treaty of Temecula was sent to the United States Senate for ratification. It was one of eighteen treaties with Indigenous tribes across California that remained unratified, leaving Indigenous communities vulnerable to land theft and physical violence. Indeed, the ensuing decades proved traumatic for the Cahuilla. As railroads brought more colonizers to California, demand on the state's limited sources of water steadily grew. Cahuilla leaders recognized these pressures, just as they watched in shock as smallpox outbreaks compounded the effects of genocidal violence. The Agua Calientes population fell from three thousand to just over a thousand in the late nineteenth century.<sup>57</sup>

Illness, salt mining and intensive farming, federal Indian policies, and major floods in 1891 and 1905 threatened Cahuilla well-being.<sup>58</sup> During this period,

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Zappia, "California Indian Historiography from the Nadir to the Present," *California History*, 91, 1 (Spring 2014), 28–34.

<sup>53</sup> George W. Beattie and Helen Pruitt Beattie, *Heritage of the Valley* (Pasadena: San Pasqual Press, 1939), 74–75; Ward, 121–22.

<sup>54</sup> Bean, 17; Phillips, 45.

<sup>55</sup> Phillips, 51; Strong, 53–54.

<sup>56</sup> Michael Magliari, "Free Soil, Unfree Labor: Cave Johnson Courts and the Binding of Indian Workers in California, 1850–1867," *Pacific Historical Review*, 73, 3 (Aug. 2004), 349–90; Traci Brynne Voyles, *The Settler Sea: California's Salton Sea and the Consequences of Colonialism* (Lincoln: University of Nebraska Press, 2021), 48.

<sup>57</sup> Bean, 584; Benjamin Madley, *An American Genocide: The United States and the California Indian Catastrophe* (New Haven, CT: Yale University Press, 2016); Voyles, 45–46.

<sup>58</sup> William J. Bauer Jr., "Family Matters: Round Valley Indian Families at the Sherman Indian Institute, 1900–1945," *Southern California Quarterly*, 92, 4 (2010), 393–421.



Cahuilla people renewed the cultural and spiritual traditions that connected them with groundwater nodes. For example, elders recognized the scarcity of water across their homelands and situated ceremonial houses near groundwater to encourage different Cahuilla clans to come together to strengthen their commitment to these precious waters.<sup>59</sup> Separate executive orders in 1876 and 1877 – issued by presidents U. S. Grant and Rutherford B. Hayes respectively – provided the Agua Caliente Band of Cahuilla Indians with the physical space to nurture these connections by establishing a checkerboard of reservation lands. Federal legislation in the 1950s further protected the Agua Caliente Band of Cahuilla Indians’ lands from allotment and termination.<sup>60</sup>

During the latter half of the twentieth century, however, agriculture, which made tentative advances in the Coachella Valley with the introduction and harvesting of date palms in the 1890s, boomed, spurring economic growth.<sup>61</sup> During the postwar decades, the government of the Agua Caliente Band of Cahuilla Indians adjusted to the Coachella Valley becoming a vacation destination for movie stars, a trend that resulted in a massive upswing in investment by property developers. By the 1980s, a real-estate boom was in full swing as developers swooped in and began building luxury resorts and golf courses for America’s tourist industry.<sup>62</sup> These economic activities resulted in radical changes in land use practices and initiated an unsustainable reliance on the ancient water stored in the Coachella Valley aquifer. These changes had the potential to alter the Agua Caliente Band of Cahuilla Indians’ relationship to groundwater beyond their recognition.

## FIGHTING FOR GROUNDWATER

The above history provides a snapshot of how global systems of settler colonialism continually reinvent themselves, deploying different forms of violence to

<sup>59</sup> Manuel Shvartzberg Carrio, “Settler-Colonial Architecture and the Visual Management of Geopolitical Conflict: On the Representation(s) of Sovereignty,” in Fernando Luiz Lara and Felipe Hernandez, eds., *Spatial Concepts for Decolonizing the Americas* (Newcastle upon Tyne: Cambridge Scholars Publishing, 2022), 94.

<sup>60</sup> Committee on Resources, House of Representatives, Report, Agua Caliente Band of Cahuilla Indians, 105th Congress, 1st Session (Washington, DC: Government Printing Office, 1997), 4.

<sup>61</sup> A. E. Kocher and W. G. Harper, *Soil Survey of the Coachella Valley Area, California* (Washington, DC: Government Printing Office, 1927), 491–501.

<sup>62</sup> Ortner and Du Pont, *You Can’t Eat Dirt*, 26–28, 33–35; Jeff Crider, *The Story of the Coachella Valley Water District: Making Every Drop Count since 1918* (Coachella, CA: Coachella Valley Water District, 2018), 6.

dispossess Indigenous people and solidify its continued existence. Wounds from the trauma of these histories were reopened for the Wangan and Jagalingou people and the Agua Caliente Band of Cahuilla Indians in comparative political and legal battles during the 2010s. These cases became two of the highest-profile examples of how Indigenous communities confront the compounding effects of settler colonialism and the intertwined issues of environmental stewardship and Indigenous sovereignty. In Australia, the Adani Group became one of eight multinational mining conglomerates to earmark the Galilee Basin in central Queensland as a site for future coal-mining operations in 2010. In southern California, the Agua Caliente Band of Cahuilla Indians engaged local water regulators – the Coachella Valley Water District (CVWD) and the Desert Water Agency (DWA) – in a legal battle that had been brewing since the 1990s.

Mining has been part of Australia's settler colonial history since the 1790s. In the nineteenth century, coal, copper, and gold dominated mining exports. A prolonged slump in mining during the first half of the twentieth century saw the industry on its knees. That changed in the late 1960s as rapidly developing economies in South and Southeast Asia demanded Australian coal, and new technologies saw a sharp upswing in demand for metals such as copper and cobalt. The Australian love affair with mining, at least among its political and economic elites, continues in the twenty-first century. Into this context entered Adani Group. Adani proposed a massive open-cut coal mine near the Carmichael river and Doongmabulla Springs – the spiritual heart of Wangan and Jagalingou Country, for which they received Native Title recognition in 2004.<sup>63</sup> Adani originally planned to extract coal deposits in excess of 8.3 billion tons. A proposed rail line would transport the coal from the Galilee Basin to Abbot Point, where it would be loaded onto ships and transported to India. The coal slurry, or waste from this process, would be dumped off the coast of Queensland, a process that scientists and environmentalists argued would kill sea grasses and corals throughout the Great Barrier Reef.<sup>64</sup>

<sup>63</sup> Native Title Tribunal, Registration Test, 27 May 2004, at [www.nntt.gov.au/searchRegApps/NativeTitleClaims/RegistrationDecisionDocuments/QCo4\\_6\\_29072004.pdf](http://www.nntt.gov.au/searchRegApps/NativeTitleClaims/RegistrationDecisionDocuments/QCo4_6_29072004.pdf).

<sup>64</sup> Tim Flannery, "The Great Barrier Reef and the Coal Mine That Could Kill It," *The Guardian*, 1 Aug. 2014, at [www.theguardian.com/environment/2014/aug/01/-sp-great-barrier-reef-and-coal-mine-could-kill-it](http://www.theguardian.com/environment/2014/aug/01/-sp-great-barrier-reef-and-coal-mine-could-kill-it).



Figure 1. Doongmabulla Springs, Galilee Basin. Photograph credit: Tom Jefferson, public domain.

Almost immediately, Adani's proposed Carmichael mine attracted opposition from constituents across Australia. Over the ensuing decade, Adani and their allies in state and federal government defied public opposition and pressed ahead with the proposed mine. Environmental groups, ranchers, and Indigenous communities became unlikely allies in opposing the mine. Sociologist Sujatha Fernandes draws our attention to the trans-Indigenous connections between the W&J Family Council and the Indigenous people of eastern Indian, known as the Santal, in fighting against Adani's exploitative uses of local sources of water.<sup>65</sup>

Back in Australia, when media outlets reported on Adani's abysmal environmental record and exposed the company's trade-based money-laundering schemes, public opposition to the proposed Carmichael mine intensified.<sup>66</sup> For the representatives on the W&J Family Council, who voted against the Carmichael mine in 2014, their resolve to oppose the mine never wavered. That is because Adani's proposed mine threatened to destroy the origin point and lifeblood of the Wangan and Jagalingou's kinscape: the Carmichael river,

<sup>65</sup> Kabir Agarwal, "Adani's Australia Story," *The Wire*, 1 Nov. 2017, at <https://thewire.in/business/adanis-australia-story-whats-the-fuss-all-about/>; Sujatha Fernandes, "The Place of Many Waters: For Two Indigenous Communities, Maintaining Presence Is Power," *Orion*, Aug. 2022, at [www.orionmagazine.org/article/coal-mining-indigenous-land-rights](http://www.orionmagazine.org/article/coal-mining-indigenous-land-rights); Ed Ainsworth, *The Golden Checkerboard* (Palm Desert, CA: Desert-Southwest Inc., 1965); Ortnier and Du Pont, 21.

<sup>66</sup> "Digging into Adani," *Four Corners*, Australian Broadcasting Corporation, 2 Oct. 2017, at [www.abc.net.au/4corners/digging-into-adani/9008500](http://www.abc.net.au/4corners/digging-into-adani/9008500).

the Doongmabulla Springs, and the community's connection to Mundunjudra. The Wangan and Jagalingou were not only fighting to prevent a potential environmental catastrophe; they also fought to defend their sovereignty and ensure the survival of their religion, culture, and identity as a people.

To appreciate the significance of Wangan and Jagalingou opposition to Adani, it is essential to recognize that groundwater constitutes vital nodes in Wangan and Jagalingou kinscapes. Groundwater is important because it links people to a more-than-human community and to the ancient past. It is stored deep in the earth where it remains until humans find a way to reach it. When they do, access to groundwater connects human beings to deep time, that immense arc of nonhuman history that stretches back billions of years. It also connects to the stories associated with kinscapes which the ancestors nurtured over tens of thousands of years. In Queensland, across ecosystems ranging from lush rainforests to scorched inland deserts, an estimated two hundred of Australia's six hundred Indigenous nations have cared for Country. In precolonial Queensland, tribal groups of approximately three hundred to six hundred people spoke one of ninety languages, traveled well-worn paths to engaged in trade or participate in ceremonies, and navigated rivers and coastal currents in small birchbark canoes. Indigenous people shared lives defined by cooperation and reciprocity with each other and with Queensland's diversity of life-forms – values that eventually put them at odds with British settler society.<sup>67</sup>

The ancestors of the Wangan and Jagalingou worked with Country. In central Queensland's subtropical zone, the Belyando, Carmichael, and Sutter rivers sustained life and became focal points for spiritual beliefs and ceremony. The Wangan became well acquainted with the extractive practices of British settlers. Their homelands attracted gold and copper miners during the latter half of the nineteenth century, which led to the founding of the town of Clermont. The Jagalingou have similar experiences. They also attracted the attention of amateur ethnologists and anthropologists who recorded them as "Janalingu" and "Yalalingu" during the nineteenth and twentieth centuries. For both the Wangan and the Jagalingou, the lands and waters of Queensland's Galilee Basin remained part of the permeable boundaries of their kinscapes. These kinscapes formed parts of fragile ecosystems that the Wangan and Jagalingou shared with the nearby Miyan, Barna, Gabalbara, Gayiri, Bidjara, Dharawala, and Iningai

<sup>67</sup> David Bailey, *Information re Customs etc. of Aboriginal tribes of Belyando, Suttor and Bowen Rivers* (Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS), Canberra, ACT, 1940), 8. R. M. W. Dixon, "Tribes, Languages and Other Boundaries in Northeast Queensland," in Nicolas Peterson, ed., *Tribes and Boundaries in Australia* (Canberra: Australian Institute of Aboriginal Studies, 1976), 207–38; A. K. Chase and Peter Sutton, "Hunter-Gatherers in a Rich Environment: Aboriginal Coastal Exploitation in Cape York Peninsula," in A. Keast, ed., *Ecological Biogeography of Australia* (The Hague: W. Junk, 1981), 1817–52; Evans, *History of Queensland*, 3–5.

peoples, and today share with endangered species such as the black-throated finch. Water connected human and nonhuman life, an interspecies collective that lived together in a vibrant but fragile ecosystem.<sup>68</sup>

The Doongmabulla Springs sit at the center of Wangan and Jagalingou kin-scapes. As we noted above, community members view Doongmabulla Springs as their place of origin. Its life-giving waters are supplied by 187 spring vents. This is why Doongmabulla, which means “place of many waters,” is such an apt name for this ecologically rich kinscape.<sup>69</sup> These springs are connected to the Great Artesian Basin (GAB), a massive groundwater complex that covers 22 percent of the Australian continent and has filtered surface water through layers of sandstone, clay, and shale since the Triassic Period.<sup>70</sup> During the Holocene Epoch, Indigenous people identified the GAB as a major source of freshwater. In the driest continent on Earth, water was not only sacred, it was (and remains) precious in connecting people and sustaining their lives.<sup>71</sup> For tens of thousands of years, the flow of rivers and intermittent creeks sustained human life and guided travelers. When surface water became scarce, as it often did, Indigenous people dug wells to tap into aquifers. Brad Moggridge, a Kamilaroi man and hydrogeologist, observes that Aboriginal people thrived in Australia for thousands of years because they knew how to access “natural springs or . . . dig tunnels to access” groundwater. By combining ingenuity, Indigenous science, and careful observations, Aboriginal people sustained themselves and managed delicately balanced ecosystems.<sup>72</sup>

The ancestors of the Wangan and Jagalingou narrated the importance of groundwater springs in their origin story about Mundunjudra, the Rainbow

<sup>68</sup> “Notes on Social Organization,” Folder 6, Box 6, A. W. Howitt Collection, MS 69, National Museum of Victoria, Melbourne, Australia; “Queensland Showing Land Tenure 1937,” Sheet 2, AA338/15/41, Norman Barnett Tindale Papers, South Australian Museum, Adelaide, Australia; R. H. Mathews, “Divisions of Queensland Aborigines,” *Proceedings of the American Philosophical Society*, 37, 158 (Dec. 1898), 327–36; Bailey; Kevin Blackburn, “Mapping Aboriginal Nations: The ‘Nation’ Concept of Late Nineteenth Century Anthropologists in Australia,” *Aboriginal History*, 26 (2002), 131–58; Amelia Hine, Robyn Mayes, and Bree Hurst, “The Finch in the Coal Mine: Interrogating the Environmental Politics of Extinction Narratives,” *Geographical Research*, 60 (2022), 521–33. <sup>69</sup> Fernandes.

<sup>70</sup> “Great Artesian Basin,” *Geoscience Australia*, at [www.ga.gov.au/scientific-topics/water/groundwater/gab](http://www.ga.gov.au/scientific-topics/water/groundwater/gab); Carlos Ordens et al., “Preface: Advances in Hydrogeological Understanding of Australia’s Great Artesian Basin,” *Hydrogeological Journal*, 28 (2020), 1–11.

<sup>71</sup> Marshall, *Overturning Aqua Nullius*, 3–4, 15; Samia Khatun, *Australianama: The South Asian Odyssey in Australia* (Oxford: Oxford University Press, 2018), 20, 42–44.

<sup>72</sup> Moggridge quoted in Judy Skatsooson, “Aboriginal People Built Water Tunnels,” *News in Science*, ABC Australia, at [www.abc.net.au/science/news/ancient/AncientRepublsh\\_1590192.htm](http://www.abc.net.au/science/news/ancient/AncientRepublsh_1590192.htm); Brodie, R.S., K.C., Lawrie and D.P. Commander, “Groundwater: Lifeblood of the Continent,” in Richard S. Blewett, ed., *Shaping a Nation: A Geology of Australia* (Canberra: ANU Press, 2012), 332–79; Victor Steffensen, *Fire Country: How Indigenous Fire Management Could Help Save Australia* (Richmond, VIC: Hardie Grant Travel, 2020).

Serpent. Like other Indigenous communities, the Wangan and Jagalingou people have a deep history of storytelling and art that focusses on aquatic creatures, both good and evil. In this sense, Mundunjudra, like all life, springs from, and connects to, different rivers and groundwater sources. Mundunjudra is thus a deity with the power to create or destroy life.<sup>73</sup>

During the late nineteenth century and the early twentieth, anthropologists started referring to Aboriginal stories about Rainbow Serpents as examples of folkloric traditions popularly known as the “Dreamtime” and “Dreaming myths.”<sup>74</sup> The “Dreamtime,” a period when life was created, and “Dreaming,” or the stories that explain why and how things came to be (such as why kangaroos have tails), are rich and complex. They differ across Australia, from the coast to the deserts and places in between. What they have in common is they are stories that inform Indigenous ontologies and guide communities in mapping the spiritual and physical nature of Country.<sup>75</sup> Importantly, stories of the “Dreaming,” or to use the anthropologist W. E. H. Stanner’s evocative 1953 phrase “the everywhen,” are bigger and more profound than Western concepts of history.<sup>76</sup> Historians Ann McGrath and Laura Rademaker explain that this is “because it has no need to be written down and because it is not *history* in the sense of being located wholly in the past.” It is, McGrath and Rademaker contend, “part of something larger, continuous and ongoing. Story can be about any and every time; it persists in and outside of time, with time itself refusing to be pinned down.”<sup>77</sup>

In some Aboriginal communities, storytellers recount tales of the importance of caves and water – the locations from which ancestor beings emerged and traveled across the landscape. In desert communities of central Australia, creation stories are part of “songlines” that link community members and determine one’s totem.<sup>78</sup> Returning to sacred sites, or accessing

<sup>73</sup> Robert Holden and Nicholas Holden, *Bunyips: Australia’s Folklore of Fear* (Canberra: National Library of Australia, 2001), 91, 93.

<sup>74</sup> Patrick Wolfe, “On Being Woken Up: The Dreamtime in Anthropology and in Australian Settler Culture,” *Comparative Studies in Society and History*, 33, 2 (April 1991), 197–224; Tony Swain, *A Place for Strangers: Towards a History of Australian Aboriginal Being* (Cambridge: Cambridge University Press, 1993), 21–22; Philip A. Clarke, “Indigenous Spirit and Ghost Folklore of ‘Settled’ Australia,” *Folklore*, 118, 2 (Aug. 2007), 141–61. Penny Edmonds, “The Bunyip as Uncanny Rupture: Fabulous Animals, Innocuous Quadrupeds and the Australian Anthropocene,” *Australian Humanities Review*, 63 (Nov. 2018), 80–98.

<sup>75</sup> Richard Broome, *Aboriginal Australians*, 2nd edn (Sydney: Allen and Unwin, 1994), 9–21.

<sup>76</sup> W. E. H. Stanner, *The Dreaming and Other Essays* (Melbourne: Black Inc., 2010; first published 1953), 57–72.

<sup>77</sup> Ann McGrath and Laura Rademaker, “The Language and Temporalities of ‘Everywhen’ in Deep History,” in Ann McGrath, Laura Rademaker, and Jakelin Troy, eds., *Everywhen: Australia and the Language of Deep History* (Lincoln: University of Nebraska Press, 2023), 4.

<sup>78</sup> Bruce Chatwin, *The Songlines* (New York: Penguin, 1988); Gammage, *Biggest Estate*, 126, 135; Glen Morrison, “Walking, Frontier and Nation: Re/tracing the Songlines in Central Australian Literature,” *Journal of Intercultural Studies*, 40, 1 (2019), 118–40.

their medicine, requires ceremony and/or the wisdom of a Clever Man, or spiritual Elder.<sup>79</sup> The Wangan and Jagalingou people have their own living traditions. As the W&J Family Council instructed the United Nations in 2018, “our lands and waters embody our culture and are the living source of our customs, laws, and spiritual beliefs.”<sup>80</sup> This is a critically important point that reveals how Wangan and Jagalingou people talk about their kinscapes. Adani, whose extractive practices are identical to those of settler colonial actors, and the Australian legal system, both operate in ways that refuse to seriously engage with Wangan and Jagalingou cultural and political processes.

On the other side of the Pacific Ocean, the Agua Caliente Band of Cahuilla Indians also express their kinscape connections through stories about the living earth and the spiritual significance of the mineral springs in California’s Coachella Valley. Unlike the Wangan and Jagalingou, the Agua Caliente Band of Cahuilla Indians brought their stories to a fight not with a multinational mining corporation, but with Coachella Valley Water District (CVWD) and Desert Water Agency (DWA). The Agua Caliente Band of Cahuilla Indians accuse government regulators of overdrawing on the Coachella Valley aquifer and proposing to “recharge” it with water imported from the Colorado river – water possessing a much higher salt content than, the Agua Caliente Band of Cahuilla Indians assert, breaches their right to groundwater without elevated salt levels. In this drought-prone section of southern California, farmers have also entered the lucrative irrigation business over the past two generations. Irrigators now account for 65 percent of the groundwater withdrawals from the Coachella Valley aquifer. The Agua Caliente Band of Cahuilla Indians point out that overdrawing on the aquifer has resulted in a drop in water levels of “an average of 55 feet since 1970.”<sup>81</sup> The over-withdrawal of the aquifer is part of a broader trend, with California pumping more groundwater than any other state in the United States – approximately 17.4 billion gallons per day, or 16 percent of US groundwater withdrawals.<sup>82</sup>

<sup>79</sup> Bruce Pascoe, *Dark Emu: Aboriginal Australia and the Birth of Agriculture* (Melbourne: Scribe, 2018); Steffensen *Fire Country*; Tyson Yunkaporta, *Sand Talk: How Indigenous Thinking Can Save the World* (New York: HarperCollins, 2020); Jeremy Beckett and Luise Hercus, *The Two Rainbow Serpents Travelling: Mura Track Narratives from the “Corner Country”* (Canberra: ANU E Press, 2009), 17; Clarke, 141–61.

<sup>80</sup> Noureddine Amir, Committee on the Elimination of Racial Discrimination, Office of the High Commission, United Nations Human Rights, 14 Dec. 2018, at [https://tbinternet.ohchr.org/Treaties/CERD/Shared%20Documents/AUS/INT\\_CERD\\_ALE\\_AUS\\_8816\\_E.pdf](https://tbinternet.ohchr.org/Treaties/CERD/Shared%20Documents/AUS/INT_CERD_ALE_AUS_8816_E.pdf).

<sup>81</sup> Marissa Willman, “Coachella Valley Aquifer,” at [www.coachellacleanwater.org/aquifer](http://www.coachellacleanwater.org/aquifer).

<sup>82</sup> L. F. Konikow, “Groundwater Depletion in the United States (1900–2008),” *US Geological Survey Scientific Investigations Report*, 2013, at <http://pubs.usgs.gov/sir/2013/5079>. C. A. Dieter, Molly A. Maupin, Rodney R. Caldwell, Melissa A. Harris, Tamara I. Ivahnenko, John K. Lovelace, Nancy L. Barber, and Kristin S. Linsey, “Estimated Use of Water in the United States in 2015,” US Geological Survey Circular 1441, 2018, at <https://pubs.er.usgs.gov/publication/cir1441>.

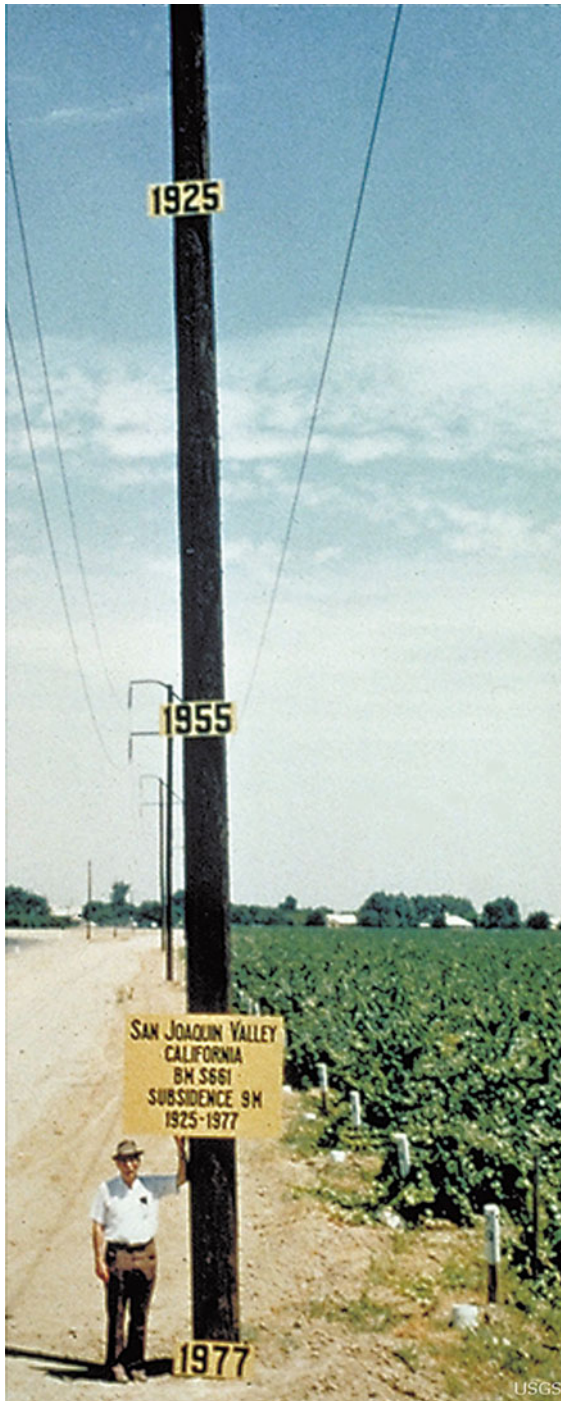


Figure 2. An example of land subsidence caused by the overdraw of aquifers. San Joaquin Valley, California. US Geological Survey.



In Australia, mining executives cultivate close relationships with state and federal governments, buying access to elected officials through generous campaign donations. In the case of Adani's Carmichael mine, access to sympathetic government officials put the project on a collision course with the Wangan and Jagalingou's Native Title rights over the Doongmabulla Springs. In essence, this is how Native Title law has operated in Australia since the *Mabo* decision in 1992 and the Native Title Act (1993). Adam McLean, an Australian barrister specializing in Native Title and land rights claims, explains that the legal system is set up to dispossess Aboriginal Australians because its primary goal is to "accommodate the demands of non-Indigenous political, legal, and economic structures." The legal system is ill-equipped, McLean contends, to handle the multitude of Indigenous identities.<sup>83</sup> In the United States, a different set of political and legal relationships between the federal government and Native Americans shaped the course of the Agua Caliente case. In the US, groundwater laws are governed by individual states. The exception to this rule is groundwater that sits under reservation lands on which Indigenous communities reside. In such cases federal law applies, albeit in highly contested ways prior to the Agua Caliente's success in the Ninth Circuit Court in 2017.

Integral to understanding water rights in the US is the Supreme Court's decision in *Winters v. United States* (1908), a precedent-setting case regarding water rights on Indian reservations. In *Winters*, the Supreme Court ruled on a dispute involving the Gros Ventre and Assiniboine of the Fort Belknap Reservation in Montana and their right to use the water from the Milk river. Upstream from the reservation, farmers had diverted the river to irrigate their crops, prompting the federal government to bring an injunction against the farmers on the ground that the tribes had insufficient water to sustain their reservation. The farmers appealed but, on 6 January 1908, the Supreme Court ruled in favor of the tribes, arguing that the establishment of the Fort Belknap reservation entitled the tribes to the permanent use of water to fulfil the purpose of their reservation. The decision established the *Winters* doctrine, the legal notion of federal reserved water rights to meet the present and future needs of Indigenous people residing on federally recognized reservations. However, *Winters* did not specifically mention groundwater, creating legal uncertainty over freshwater aquifers and presaging the Agua Caliente's ongoing legal fight with the CVWD and DWA.<sup>84</sup>

<sup>83</sup> Adam McLean, "Native Title: A New Wave of Dispossession," *ab-Original*, 3, 2 (Sept. 2020), 213, 219.

<sup>84</sup> Robert J. Grow and Monte N. Stewart, "The 'Winters' Doctrine as Federal Common Law," *Natural Resources Lawyer*, 10, 3 (1977), 457–97; Courtney Cole, "'For Indian Purposes': Exploring the Role of Water as a Cultural Resource in Securing a Right to

Although *Winters* aimed to protect the reserved water rights of reservation communities, at its core the decision rested on settler colonial legal logics and extractive economic practices (in this case, treating groundwater as a commodity to be bought and sold). The court viewed water as a resource to be managed and allocated, a functionalist position reflective of the American legal system's English common-law roots in which water is not seen as a living part of Indigenous kinscapes.<sup>85</sup> In this sense, *Winters* set out a legal map for US settler colonialism's calculated use of surface water. Although American courts have applied *Winters* unevenly since 1908, Charles Sepulveda (Tongva and Acjachemen) argues that the use of settler laws highlights how colonialism "anchors the colonizing populations to land, and through their settlements they invariably redraw and reconfigure Native relations to land and water."<sup>86</sup> Sepulveda identifies one of the enduring ways in which settler colonialism perpetrates violence against Indigenous kinscapes. For the Agua Caliente Band of Cahuilla Indians, the subjective application of the settler legal principles "beneficial use" and "safe yield" routinely conflict with tribal rights and remain factors in their battle to assert their sovereignty over groundwater governance. This became clear in 2014 with the passage of the Sustainable Groundwater Management Act (SGMA), a California law designed to regulate sustainable water use.<sup>87</sup>

According to the legal scholar Dana Bass, California's transition to a new groundwater management scheme under SGMA meant that "judicial recognition of tribes' rights to control their groundwater resources may become an increasingly important – and urgent – tribal objective."<sup>88</sup> Leaders from the Agua Caliente Band of Cahuilla Indians viewed California's proposal to recharge the Coachella Valley aquifer with water from the Colorado river,

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Groundwater for the Agua Caliente Band of Cahuilla Indians," *American Indian Law Journal*, 3, 2 (Spring 2015), 409–23; Hans D. Zetzche, "Not All *Agua* Is *Caliente*: Proposing the *Winters* Groundwater Test," *Nebraska Law Review*, 98, 1 (2019), 227.

<sup>85</sup> Joshua Getzler, *A History of Water Rights at Common Law* (Oxford: Oxford University Press, 2004).

<sup>86</sup> Charles Sepulveda, "Our Sacred Waters: Theorizing *Kuuyam* as a Decolonial Possibility," *Decolonization, Indigeneity, Education & Society*, 7, 1 (2018), 40.

<sup>87</sup> Kyle D. Murray and Rowena B. Lohman, "Short-Lived Pause in Central California Subsidence after Heavy Winter Precipitation of 2017," *Science Advances*, 4, 8 (2018), 1–8; Water Education Foundation, "Groundwater Law," at [www.watereducation.org/aquapedia-background/groundwater-law](http://www.watereducation.org/aquapedia-background/groundwater-law); Maven's Notebook, "Panel Discussion Moderated by DWR Tribal Adviser Anecita Agustinez Discusses Tribal Involvement in GSAs, the Benefits of Tribal Participation in Groundwater Management, and Tribal Consultation," 28th California Water Policy Conference, April 2019, at <https://mavensnotebook.com/2019/05/15/california-water-policy-conference-tribal-groundwater-rights-and-sgma-a-new-underlying-tension>.

<sup>88</sup> Dana A. Bass, "*Agua Caliente*: A Case Study and Toolkit for Securing Tribal Rights to Clean Groundwater," *Ecology Law Quarterly*, 45, 2 (2018), 227–52.

and disputes over the meaning of “beneficial use,” sparked the tribe’s legal action. That decision prompted the question of why the Agua Caliente Band of Cahuilla Indians objected to the aquifer “recharging” scheme.

Answering this question requires us to unpack our earlier discussion of groundwater in the Agua Caliente Band of Cahuilla Indians’ collective historical consciousness and understanding of sovereignty. As we noted, the Agua Caliente Band of Cahuilla Indians have nurtured connections to their homeland for five thousand to eight thousand years. In what is today southern California, the Agua Caliente Band of Cahuilla Indians’ Cahuilla ancestors developed a social system based around the Wildcat and Coyote moieties in the shadows of the San Bernardino, Chocolate, and Palomar mountains. The *net*, or leader, made decisions about matters such as food distribution and hunting, but as a rule the Cahuilla valued cooperation.<sup>89</sup> In a desert landscape, the Cahuilla of the Coachella Valley sustained themselves and irrigated their crops from a body of water that archaeologists and geographers refer to as Lake Cahuilla. Fed by the Colorado river, Lake Cahuilla received nutrient-rich sediment from the Colorado river, which nourished southern California’s Salton Trough.<sup>90</sup> However, climate change and drought, which we noted began in the fourteenth century, meant that by the early eighteenth century the Cahuilla people had abandoned the receding shorelines of Lake Cahuilla and recited birdsongs as they migrated in search of new sources of water. The Cahuilla ancestors of today’s Agua Caliente Band of Cahuilla Indians developed a close bond with the mesquite tree, knowing that these trees were often nodes for the ancient waters stored in aquifers.<sup>91</sup>

The springs that the Cahuilla came to rely on were formed along the San Andreas fault system during the late Cenozoic Era. Around the Agua Caliente spring, water and sediment from the Whitewater river was filtered through permeable layers of sand and gravel.<sup>92</sup> The Cahuilla adapted their ceremonies, spiritual beliefs, and medicine to the springs. Just as Indigenous

<sup>89</sup> Brenda Romero, “World View of Tewa and Cahuilla Encourage Adaptation to Place and Resounds in Song,” *Wicazo Sa Review*, 8, 1 (1992), 66; Milanovich, “The Treaty of Temecula,” 5–9, 280.

<sup>90</sup> Michael R. Waters, “Late Holocene Lacustrine Chronology and Archaeology of Ancient Lake Cahuilla, California,” *Quaternary Research*, 19, 3 (May 1983), 373–87. Jerry Schaefer, “The Challenges of Archaeological Research in the Colorado Desert: Recent Approaches and Discoveries,” *Journal of California and Great Basin Anthropology*, 16, 1 (1994), 60–80; Jeanne E. Arnold et al., “The Archaeology of California,” *Journal of Archaeological Research*, 12, 1 (March 2004), 1–73.

<sup>91</sup> Romero, 3; Milanovich, 44; Voyles, *The Settler Sea*, 21–28, 30.

<sup>92</sup> US Department of the Interior and US Geological Survey (with Agua Caliente Band of Cahuilla Indians), *The Source, Discharge, and Chemical Characteristics of Water from Agua Caliente Spring, Palm Springs, California* (Reston, VA: US Geological Survey, 2011), 9.

Australians dug for water, so too did the Cahuilla go underground to secure water to sustain their bodies, nourish their souls, and irrigate their crops. The Cahuilla engineered wells that people walked into to collect groundwater. For example, the Augustine Band of Cahuilla Indians built wells called *temakawomal* (“earth olla”). The science and engineering involved in the construction of these wells were based on close observations of the water table. As the water table fell the Cahuilla dug deeper into the earth to maintain access to groundwater.<sup>93</sup>

The Cahuilla continued these practices long after they had begun to experience intermittent contact with Spanish colonizers.<sup>94</sup> Cahuilla origin stories remained important to embedding communities in the land and water that comprised their kinscapes. Francisco Patencio, a Cahuilla Elder, spoke about these relationships. In 1943, Patencio recounted the story of the twin brothers Múkat and Témayawet, outlined in the introduction to this essay. In Patencio’s retelling, after the brothers created water they decided to turn up the edges of the earth so that water could not flow away. That decision created a delicate balance that all living beings nurtured together.<sup>95</sup>

Creation stories are fundamental to understanding the place-based sovereignty of the Agua Caliente Band of Cahuilla Indians. Creation stories and birdsongs narrate a world of flows and movement. For example, one of the Agua Caliente Band of Cahuilla Indians’ migration narratives teaches people about the “Horns of the Fox,” a powerful leader who traveled from the west and into the Coachella Valley. Soon after members of the Fox Clan began their travels, their leader identified the markings of the fox alongside an oasis and established a home for the tribe in the canyon.<sup>96</sup> Today, we know that place as Palm Springs, but to the ancestors of the Agua Caliente Band of Cahuilla Indians it was a site (or node) of medicine that anchored people to their kinscape. The sound and feel of the water proved integral to mapping the physical and spiritual importance of this place. Their ancestors

<sup>93</sup> Lowell J. Bean and Harry W. Lawton, “A Preliminary Reconstruction of Aboriginal Agricultural Technology among the Cahuillas,” *Indian Historian*, 1, 5 (1969), 18–25. Lowell J. Bean, Sylvia Brakke Vane, and Jackson Young, *The Cahuilla and the Santa Rosa Mountain Region: Places and Their Native American Association* (Riverside, CA: Cultural Systems Research, Incorporated, 1981), 11–12; Voyles, 9–11, 35–36.

<sup>94</sup> Romero, 66; Laylander, “The Last Days of Lake Cahuilla,” 56.

<sup>95</sup> Francisco Patencio and Margaret Boynton, *Stories and Legends of the Palm Spring Indians* (Palm Springs: Palm Springs Desert Museum, 1943), 11; J. Hermann, “Legends of the Cahuilla,” *Palm Springs Life*, 31 Aug. 2007, at [www.palmspringslife.com/legends-of-the-cahuilla](http://www.palmspringslife.com/legends-of-the-cahuilla); “History: In the Beginning,” Vision Agua Caliente: Agua Caliente Indian Reservation, Southern California, at [www.visionaguacaliente.com/history](http://www.visionaguacaliente.com/history).

<sup>96</sup> “Groundwater Rights Confirmed but the Fight Continues,” *Native American Rights Fund: Legal Review*, 42, 1 (Winter–Spring 2017), 1–4.

centered the attachment to place on Se-khi, a hot mineral spring.<sup>97</sup> Spanish soldiers named the springs *agua caliente* (hot water). And when Anglo-Americans remade the landscape in the nineteenth century they called it Palm Springs, a reference to the native *Washingtonia filifera* palm tree and the nearby mineral springs.<sup>98</sup>

### MORE THAN A RESOURCE

The Agua Caliente Band of Cahuilla Indians' legal fight with the Coachella Valley Water District and the Desert Water Agency over the Coachella Valley aquifer and the W&J Family Council's struggle to protect Doongmabulla Springs from Adani's Carmichael mine reveals how Indigenous communities continue encountering existential threats from globally connected settler states and external economic actors. In Queensland, the legacy of historical violence lay barely concealed beneath a thin veneer of corporate branding and political slogans. One journalist contends that Adani executives were able to "buy access" to state and federal politicians in the "game of mates" that persuaded lawmakers to implement regulations favorable to Adani. For its part, Adani promised an economic renaissance in central Queensland, with the Carmichael mine projected to create ten thousand new jobs. Queensland premier Anastacia Palaszczuk regularly touted Adani's job-creating potential. To date, the Carmichael mine has created fewer than 1,500 jobs.<sup>99</sup>

The W&J Family Council lacked the resources to "buy access" to powerful politicians. Still, the size, scale, and potential destructiveness of Adani's proposed mine – covering an area of roughly 30,000 hectares – inspired Wangan and Jagalingou resistance. Cultural leader Adrian Burragubba and youth spokesperson Murrawah Johnson emerged as leading voices in the W&J Family Council's opposition to the Carmichael mine. Throughout the 2010s, Burragubba and Johnson argued that because the W&J Family Council held Native Title to the lands that Adani wanted to mine, the Indian multinational needed to consult with the tribe. Adani lawyers would have to negotiate an Indigenous Land Use Agreement (ILUA), as outlined in the Native Title Act (1993; amended 1998 to include ILUAs). ILUAs are agreements overseen by the National Native Title Tribunal (NTT) between Native Title holders and other "people or bodies about the use and

<sup>97</sup> Ortner and Du Pont, *You Can't Eat Dirt*, 45.

<sup>98</sup> "History: In the Beginning."

<sup>99</sup> Lisa Cox, "Adani Jobs Explained: Why There Are New Questions over Carmichael Mine," *The Guardian*, 4 June 2019, at [www.theguardian.com/environment/2019/jun/05/adani-jobs-explained-why-there-are-new-questions-over-carmichael-mine](http://www.theguardian.com/environment/2019/jun/05/adani-jobs-explained-why-there-are-new-questions-over-carmichael-mine).

management of areas of land and/or water.”<sup>100</sup> Settler state legal logic is embedded in ILUAs and in NTT’s oversight; rarely are the interests of Native Title holders served as it relates to the protection of cultural or sacred sites. Unsurprisingly, the NTT ruled against Burragubba’s 2015 bid to stop Adani’s mine. The tribunal declared that the “native title party’s representative did not submit material, thus did not ask for a determination” on the Queensland government issuing leases to Adani. Additionally, the NTT was not persuaded by Burragubba’s accusation that Adani showed “material dishonesty” in providing misleading hydrological data and lying about the amount of land to be cleared in its environmental impact statement.<sup>101</sup>

Emboldened by the NTT’s decision, Adani pressed the Queensland government for mining leases on the ground that the Carmichael mine constituted a “significant project.” Under a 1971 law known as the State Development and Public Works Organisation Act, any project deemed to have significant economic benefit would need only to submit a satisfactory environmental impact statement before gaining approval from state regulators. Adani claimed it had done so. The NTT agreed, concluding, “the benefits of the Project will be experienced in the area of the proposed leases” and those leases will not “have any effect on the native title party’s way of life.”<sup>102</sup>

The NTT’s decision on the ILUA came as little surprise to Aboriginal leaders who monitor the tribunal’s work. Several legal decisions dating back to the late 1990s suggest that the legal system is stacked against Native Title claimants. For example, in *Yorta Yorta v. Victoria* (1998), Justice Olney dismissed the Native Title claims of the Yorta Yorta people on the ground that the “tide of history [had] washed away” any real knowledge of Indigenous laws and customs.<sup>103</sup> In 2002, Australia’s High Court further

<sup>100</sup> For an overview of ILUAs visit <https://nativetitle.org.au/learn/role-and-function-pbc/future-acts/iluas>.

<sup>101</sup> Andrew Kos, “Indigenous Challenge to Adani Carmichael Coal Mine Dismissed by Federal Court,” *ABC News*, 18 Aug. 2016, at [www.abc.net.au/news/2016-08-19/indigenous-challenge-to-adani-carmichael-coal-mine-dismissed/7765466](http://www.abc.net.au/news/2016-08-19/indigenous-challenge-to-adani-carmichael-coal-mine-dismissed/7765466); Mark Millacy and Alexandra Blutcher, “Adani Facing Prosecution for Allegedly Providing False Information in Carmichael Mine Report,” *ABC News*, 16 July 2019, at [www.abc.net.au/news/2019-07-16/adani-facing-prosecution-queensland-government-carmichael-mine/11314970](http://www.abc.net.au/news/2019-07-16/adani-facing-prosecution-queensland-government-carmichael-mine/11314970); Vineet Khare, “Carmichael Project: Visiting Australia’s Controversial Adani Mine,” *BBC News*, 29 Nov. 2018, at [www.bbc.com/news/world-asia-india-46383597](http://www.bbc.com/news/world-asia-india-46383597); Matthew J. Currell et al., “Problems with the Application of Hydrogeological Science to Regulation of Australian Mining Projects: Carmichael Mine and Doongmabulla Springs,” *Journal of Hydrology*, 548 (May 2017), 674–82.

<sup>102</sup> National Native Title Tribunal, *Adani Mining Pty Ltd and Another v. Adrian Burragubba, Patrick Malone and Irene White on behalf of the Wangan and Jagalingou People* [2015] NNTTA 16 (8 April 2015), Application Nos. QF2014/0003 and QF2014/0004.

<sup>103</sup> David Ritter, “The Judgement of the World: The Yorta Yorta Case and the ‘Tide of History,’” *Australian Historical Studies*, 35, 123 (2004), 106–21.

undermined Indigenous land rights in *Western Australia v. Ward*, setting out the parameters for whether Native Title could be extinguished in whole or in part.<sup>104</sup> Reflecting on Native Title processes in Australia, Glen Kelly, a Noongar man and head of the South West Aboriginal Land and Sea Council in Western Australia, declared that ILUAs under Native Title law are “a whitefella legal construct.” They are not, Kelly added, designed to “enliven traditional law and custom but to control traditional law and custom.”<sup>105</sup>

Burragubba and Johnson knew this, but they fought to have Wangan and Jagalingou law heard. In 2016, Burragubba took his case to the Federal Court of Australia. In *Burragubba v. State of Queensland* [FAC 984], lawyers for Burragubba argued that Adani’s Carmichael mine threatened the culture and religion of the Wangan and Jagalingou people.<sup>106</sup> Under immediate threat were Wangan and Jagalingou *bigun* (totems) that acted as nodes connecting people to place and to their more-than-human kin. For the Wangan “Babbing Bura” (Bottletree People), totems that connect kin members to the land and springs include Sand Goanna, Bee, and Possum. The Jagalingou “Woccollabura” (Eel People) share kin relations with the Carpet Snake, Scrub Turkey, and Echidna through water and ceremonies that center on the sandalwood tree. Lawyers for Burragubba emphasized how the mine had the potential to drain the Doongmabulla Springs and Carmichael river, thereby severing the kinscape connections that the Wangan and Jagalingou still nurture with Country.

For Wangan and Jagalingou opponents of the Carmichael mine, stewardship of the Doongmabulla Springs and Carmichael river connect them to their totems, “sacred beliefs,” and “the spirits of our ancestors.” Their sense of being and of law is tied to their Native Title lands, binding people to the “[t]rees, plants, shrubs, medicines we know are on Country, waterholes, animals, aquifers – all have special religious place in our land and culture and are connected to it.”<sup>107</sup> This interconnectedness was at the core of Burragubba’s 2016 case because it spoke directly to “our rights as sovereign owners and custodians.” In making this case, Burragubba’s lawyers cited the High Court’s landmark *Mabo* decision in 1992, in which “common law

<sup>104</sup> *Western Australia v. Ward* [2002] HCA 28.

<sup>105</sup> “The Native Title Act, 20 Years On,” *SBS podcasts*, 28 Feb. 2014, at [www.sbs.com.au/news/the-native-title-act-20-years-on](http://www.sbs.com.au/news/the-native-title-act-20-years-on).

<sup>106</sup> Joshua Robertson, “Revealed: Traditional Owners Accepted Payments to Attend Adani Meetings,” *The Guardian*, 15 April 2016, at [www.theguardian.com/australia-news/2016/apr/16/revealed-traditional-owners-accepted-payments-to-attend-adani-meetings](http://www.theguardian.com/australia-news/2016/apr/16/revealed-traditional-owners-accepted-payments-to-attend-adani-meetings).

<sup>107</sup> *Burragubba v. State of Queensland* [2016] FCA 984; “Statement by the Wangan and Jagalingou People about the Carmichael Mine,” Wangan and Jagalingou Family Council, 26 March 2015, at <https://wanganjagalingou.com.au/stories-two>.

native title is a communal native title and the rights under it are communal rights enjoyed by the tribe.”<sup>108</sup>

The precedent-setting *Mabo* decision drew a stark distinction between Aboriginal “communal rights” and individual property rights. It effectively embedded colonial legal logic and structures in the governance of property and “resources” at the expense of Indigenous kinscape relationship. Indeed, Tony McAvoy, a Wangan and Jagalingou traditional owner and the first Indigenous Queen’s Council (QC) in Australia, argues that the Native Title system “embeds racism” in the law because it imposes overt “duress” on Native Title holders to bow to the wishes of the mining industry.<sup>109</sup> And when the legal system works against the mining industry and government policy, federal officials have shown an inclination to change the law. This happened when the Native Title Act (1993) was amended in 1998, and it occurred again in 2017, when Attorney General George Brandis oversaw pro-mining changes in ILUA laws. Section 43A of the 1998 amendments made it possible for states and territories to replace the “right to negotiate” with “alternative provision areas” over Native Title. Western Australia, the Northern Territory, and Queensland enacted “alternative provision areas.” Queensland’s Native Title Resolution Act (2000) created the Land Resources Tribunal and reduced the ability of Native Title holders to engage in meaningful negotiations. These legal changes ultimately made it possible for Queensland to suspend Wangan and Jagalingou Native Title over 1,385 hectares, thereby opening a legal path for Adani to gain freehold title over the land.<sup>110</sup>

<sup>108</sup> The Commonwealth Law Reports, *Cases Determined by the High Court of Australia*, Volume CLXXV (Sydney: Law Book Company of Australia Limited, 1992), 110.

<sup>109</sup> Ben Smees, “Native Title System ‘Embeds Racism,’ Australia’s First Indigenous Silk Says,” *The Guardian*, 18 July 2018, at [www.theguardian.com/australia-news/2018/jul/19/native-title-system-embeds-racism-australias-first-indigenous-silk-says](http://www.theguardian.com/australia-news/2018/jul/19/native-title-system-embeds-racism-australias-first-indigenous-silk-says).

<sup>110</sup> Native Title (Federal Court) Regulations 1998, at [www.legislation.gov.au/Details/F2021C00337](http://www.legislation.gov.au/Details/F2021C00337); Land and Resources Tribunal Act 1999, at [www.legislation.qld.gov.au/view/pdf/repealed/2009-11-02/act-1999-007](http://www.legislation.qld.gov.au/view/pdf/repealed/2009-11-02/act-1999-007); Native Title Resolution Act 2000, at [www.legislation.qld.gov.au/view/pdf/asmade/act-2000-036](http://www.legislation.qld.gov.au/view/pdf/asmade/act-2000-036); Ben Doherty, “Queensland Extinguishes Native Title over Indigenous Land to Make Way for Adani Coalmine,” *The Guardian*, 31 Aug. 2019, at [www.theguardian.com/business/2019/aug/31/queensland-extinguishes-native-title-over-indigenous-land-to-make-way-for-adani-coalmine](http://www.theguardian.com/business/2019/aug/31/queensland-extinguishes-native-title-over-indigenous-land-to-make-way-for-adani-coalmine); Dominic O’Sullivan, “Indigenous People No Longer Have the Legal Right to Say No to the Adani Mine – Here’s What It Means for Equality,” *The Conversation*, 4 Sept. 2019, at <https://theconversation.com/indigenous-people-no-longer-have-the-legal-right-to-say-no-to-the-adani-mine-heres-what-it-means-for-equality-122788>; Hannah Cross, “Wangan and Jagalingou Native Title Extinguished to Make Way for Adani,” *National Indigenous Times*, 6 Sept. 2019, at <https://nit.com.au/wangan-and-jagalingou-native-title-extinguished-to-make-way-for-adani>.



Federal changes overseen by Attorney General Brandis would also impact the Wangan and Jagalingou. The proposed change in 2017 required “most [Native Title] claimants,” not all, to sign ILUAs. The conservative coalition government devised this change after a 2017 Federal Court ruling in which a \$1.3 billion deal between the Western Australian government and the Noongar people was scuppered on the ground that not all Native Title claimants signed the ILUA.<sup>111</sup>

These developments had implications for the Wangan and Jagalingou’s ILUA with Adani. Burragubba and his Wangan and Jagalingou allies maintained that a community meeting to determine how the W&J Family Council would vote on the ILUA was deeply flawed. *The Guardian* newspaper and SBS Television reported that in April 2016 Adani paid off 150 Wangan and Jagalingou community members as much as \$2,000 each to get as many people to vote in favor of the mine, irrespective of whether or not those people were Wangan and Jagalingou. According to some of the Wangan and Jagalingou people who accepted the payment, Adani representatives told them that if they did not accept the corporation’s offer, they would lose their Native Title. It is true that Indigenous people respond to colonial pressures in different ways,<sup>112</sup> but in this case Adani’s cash payments to tribal members were framed by grotesque forms of misinformation and physical intimidation. This intimidation manifested in the security detail hired by Adani with instructions to keep Burragubba and his supporters out of the 2016 meeting. That meeting precipitated a reversal of the W&J Family Council’s 2014 “no” vote on the Adani mine. Now, the twelve-member council voted 7–5 in favor of the mine. Council members Patrick Malone and Craig Dallen subsequently confirmed that they changed their vote out of fear that a “no” vote would result in the extinguishment of Wangan and Jagalingou Native Title.<sup>113</sup>

<sup>111</sup> Dan Conifer, “Native Title Act Changes Stuck amid Stand-Off between Major Parties,” *ABC News*, 11 May 2017, at [www.abc.net.au/news/2017-05-11/native-title-act-changes-wont-pass-until-mid-june/8519174](http://www.abc.net.au/news/2017-05-11/native-title-act-changes-wont-pass-until-mid-june/8519174); Michelle Anderson Ghillar, “Block Native Title Amendment (Indigenous Land Use Agreements) Bill,” 16 Feb. 2017, *Sovereign Union*, at <http://nationalunitygovernment.org/content/block-native-title-amendment-indigenous-land-use-agreements-bill-2017>.

<sup>112</sup> Konishi, “First Nations Scholars,” 299.

<sup>113</sup> Joshua Robertson, “Indigenous Owners Launch Fresh Legal Challenge to Adani’s Carmichael Mine,” *The Guardian*, 6 Dec. 2016, at [www.theguardian.com/environment/2016/dec/07/indigenous-owners-launch-fresh-legal-challenge-to-adanis-carmichael-mine](http://www.theguardian.com/environment/2016/dec/07/indigenous-owners-launch-fresh-legal-challenge-to-adanis-carmichael-mine); Robertson, “Adani Accused of Paying People to Stack Its Meeting on Crucial Mine Deal,” *ABC News*, 1 Dec. 2017, at [www.abc.net.au/news/2017-12-02/adani-accused-of-paying-people-to-stack-meeting-on-deal/9218246](http://www.abc.net.au/news/2017-12-02/adani-accused-of-paying-people-to-stack-meeting-on-deal/9218246); “Adani and the Wangan and Jagalingou People,” NITV, *SBS on Demand*, at [www.sbs.com.au/guide/video/1523027011782/Adani-and-the-Wangan-and-Jagalingou-people](http://www.sbs.com.au/guide/video/1523027011782/Adani-and-the-Wangan-and-Jagalingou-people).

Despite what appeared to be Adani's corruption of Wangan and Jagalingou political processes, Burragubba's appeal to the Federal Court in 2017 failed. A three-judge panel ruled against Burragubba on the ground that the majority of the Wangan and Jagalingou voted for an ILUA to allow the mine to proceed. Although Burragubba and the four other dissenting council voters maintained that Adani compromised clan political processes, their complaints ran head-long into the cold realities of the 2019 federal election. Eager to shore up pro-mining votes by fast-tracking approval of Adani's groundwater management plan – a document that scientists at the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and Geoscience Australia expressed considerable reservation about – the coalition government reaffirmed its support for the Carmichael mine by approving Adani's plan. For its part, Adani proved unrelenting. The company's lawyers tied Burragubba up in legal actions that ultimately bankrupted him.<sup>114</sup>

Back in California, the Agua Caliente Band of Cahuilla Indians' fight to maintain its sovereignty over groundwater kinscapes experienced a small degree of legal success in its battles with the CVWD and DWA. In *Agua Caliente Band of Cahuilla Indians v. Coachella Valley Water District*, the Ninth Circuit Court of Appeals left standing a lower-court ruling endorsing priority groundwater rights for Indigenous tribes and denying an appeal from the Coachella water agencies. Citing *Winters*, the court ruled that when the federal government established the Agua Caliente Band of Cahuilla Indians' reservation it implied that the tribe also had water rights. "Water is inherently tied to the Tribe's ability to live permanently on the reservation," the court declared. "Without water, the underlying purpose – to establish a home and support an agrarian society – would be entirely defeated."<sup>115</sup>

The Ninth Circuit's ruling, the first in a trifurcated case, is part of a legal trend in US courts that has profound implications for water rights in the American West. It confirmed that the establishment of a reservation did in fact grant groundwater rights to tribes residing on reservation lands. As attorney Dana Bass observes,

In the broadest sense, the Ninth Circuit's opinion is about environmental justice, the recognition of tribal sovereignty, and the right to self-determination. In the narrowest sense, which is not hardly narrow at all, this decision is about which actors can control California's groundwater resources as those resources become increasingly scarce.<sup>116</sup>

<sup>114</sup> Kristen Lyons and Morgan Brigg, "Traditional Owners Still Stand in Adani's Way," *The Conversation*, 16 April 2019, at <https://theconversation.com/traditional-owners-still-stand-in-adanis-way-115454>; Cross.

<sup>115</sup> *Agua Caliente Band of Cahuilla Indians v. Coachella Valley Water Dist.*, 849 F.3d 1262 (9th Cir. 2017).  
<sup>116</sup> Bass, "Agua Caliente," 229.

The court's ruling sent shockwaves through the halls of state governments across the West. Ten states – Nevada, Arizona, Arkansas, Idaho, Nebraska, North Dakota, South Dakota, Texas, Wisconsin, and Wyoming – complained that the Ninth Circuit's decision to uphold the *Winters* doctrine undermined the authority of the states to exercise control over water. These states, however, failed to convince the Supreme Court to hear their case. The Ninth Circuit's decision would stand.<sup>117</sup>

The Ninth Circuit's 2017 decision was an important victory for the Agua Caliente Band of Cahuilla Indians because it inserted Indigenous environmental stewardship, knowledge of kinscapes, and sovereignty into the settler nation's deliberations. Additionally, the ruling provided clarity on the legal question of "reserve rights" to groundwater that federal courts had ruled on inconsistently for over a century.<sup>118</sup> For the Agua Caliente Band of Cahuilla Indians, though, the fight goes on. Many tribal members remain deeply concerned about the use of water from the Colorado river to "recharge" the aquifer – a concern the tribe has raised since the 1990s.<sup>119</sup> The overdrawing of the aquifer and accompanying land subsidence is a form of slow violence to the land that the Agua Caliente Band of Cahuilla Indians continue monitoring. Moraino Patencio, a member of the Agua Caliente Band of Cahuilla Indians, speaks for many when he expresses concern about the short-term economic and political thinking involved in managing the aquifer. That thinking is at odds with the Agua Caliente Band of Cahuilla Indians' appreciation for their connection to deep time and the importance of groundwater kinscape nodes. In fact, the CVWD and DWA continue to argue that the Agua Caliente are inexperienced water managers. Patencio knows differently, observing that the "Cahuilla people have long been the stewards of the surrounding land and waters."<sup>120</sup>

The Hot Mineral Spring is not only the "epicenter of the Tribe's business ventures but more importantly, the fountainhead of Agua Caliente cultural

<sup>117</sup> *Agua Caliente Band of Cahuilla Indians v. Coachella Valley Water District*, 849 F.3d 1262 (2017), certiorari denied, 138 S. Ct 468 (2017); Zeslie Zablan, "Tribal Rights to Groundwater: The Case of Agua Caliente," *Environmental Law*, 48, 3 (2018), 623–24.

<sup>118</sup> See for example *In re General Adjudication of All Rights to Use Water in the Big Horn River System (Big Horn)*, 753 P.2d 76 (WY 1988); *In Re the General Adjudication of all Rights to Use Water in the Gila River System and Source*, 35 P.3d 68 (AZ 2001); *The Confederated Salish and Kootenai Tribes of the Flathead Reservation v. Stults*, 59 P.3d 1093 (MT 2002).

<sup>119</sup> Agua Caliente Band of Cahuilla Indians, Cabazon Torres Martinez, and Twenty Nine Palms Chair People to Tom Levy, General Manager–Chief Engineer, Coachella Valley Water District, Riverside, CA, 9 April 1996, in *Water Issues: Correspondence between the Agua Caliente Band of Cahuilla Indians and the United States, Desert Water Agency, and Coachella Valley Water District, 1996–2021*, [www.coachellacleanwater.org/litigation](http://www.coachellacleanwater.org/litigation).

<sup>120</sup> "Groundwater Rights Confirmed but the Fight Continues," 1–11.

identity.”<sup>121</sup> Thus, when the Agua Caliente Band of Cahuilla Indians began their fight to protect the tribe’s “reserved rights” to groundwater, they were fighting not simply for a resource but for the long-term survival of their kinship relationships – the foundation of their sovereignty. Margaret Park, a former director of planning and natural resources for the Agua Caliente Band of Cahuilla Indians, made this point in criticizing the plan to “recharge” the aquifer with unclean water from the Colorado river. These types of short-sighted management strategy, Park insists, are one of the tribe’s greatest concerns regarding the “solvency and sustainability of water for future generations.”<sup>122</sup> Water management strategies that move beyond the instrumentalism of government regulators, and view water not merely as a resource but as interconnected with other physical, cultural, and spiritual aspects of life, require both co-governance and long-term climate policies that view groundwater management as an issue of both sustainability and the nurturing of Agua Caliente Band of Cahuilla Indians’ sovereignty. Art Bunce, tribal attorney for the Barona Band of Mission Indians, one of the Agua Caliente Band of Cahuilla Indians’ sister tribes, has made a similar point, observing that “Indian people take a very long view of natural resource questions, particularly water.”<sup>123</sup>

## LESSONS

Indigenous people in Australia and the United States, as in other parts of the world, recognize that settler colonialism continues to impede their sovereignty and undermine their abilities to act as environmental stewards. These impediments are a direct threat to Indigenous sovereignty and, as the two case studies in this essay make clear, are playing out with very different legal results. The Wangan and Jagalingou experienced the settler state’s opposition in their challenge to Adani’s Carmichael coal mine and the suspension of their Native Title over 1,385 hectares of their land. The W&J Family Council’s “Water Protector” campaign – “No Means No” – revealed how corporate stakeholders and state and federal governments of all political persuasions make decisions that strengthen the settler state’s power at the expense of Native Title claimants.

In the case of the Agua Caliente Band of Cahuilla Indians, the Ninth Circuit’s 2017 decision to recognize the Agua Caliente Band of Cahuilla

<sup>121</sup> Mona De Crinis, “Building on Water: How the Agua Caliente People Survive and Thrive with the Greatest Natural Resource,” *Palm Springs Life*, 13 April 2020, at [www.palmsspringslife.com/agua-caliente-water](http://www.palmsspringslife.com/agua-caliente-water).<sup>122</sup> Ibid.

<sup>123</sup> Maven’s Notebook, “Panel Discussion Moderated.”

Indians' "reserved rights" to groundwater acknowledged the legal precedent established by *Winters* and opened a door to a possible future in which tribal sovereignty and environmental stewardship are protected, albeit under a legal framework overseen by the settler state. Importantly, the basis for the Ninth Circuit's recognition of the Agua Caliente Band of Cahuilla Indians' reserved water rights may be a necessary evil over coming decades. Indeed, the Agua Caliente Band of Cahuilla Indians' fight continues. At the time we write these concluding remarks, the Agua Caliente Band of Cahuilla Indians continue to devise legal strategies to ensure that the knowledge that has animated Cahuilla kinscapes for multiple millennia is not undermined by local, state, and federal government agencies and/or policies.<sup>124</sup>

For Indigenous people, retaining access to water in the twenty-first century – be it groundwater or surface water – is about an unfolding history that is connected to place, to kinscapes. It is part of the ethical work of advancing Indigenous sovereignty, work that recognizes the particularities of Indigenous sovereignty, and which also contributes to trans-Indigenous dialogs that can inform future climate action. For the Wangan and Jagalingou and Agua Caliente Band of Cahuilla Indians, kinscapes weave communities into the past, present, and future of a place. An element of this way of knowing the world may have filtered into the psyche of the Queensland police force. Law enforcement in Queensland has a long history of violent relations with Indigenous people in that state, but in recent years pressure from Indigenous community leaders has seen police employ a provision of the Queensland Human Rights Act (2019) to allow Wangan and Jagalingou people to conduct ceremonies at spiritually significant locations.<sup>125</sup> In coming decades, human rights law may prove to be one of a number of tools in decolonizing settler colonial structures and safeguarding access to the places, or nodes of belonging, that give Wangan and Jagalingou kinscapes their meaning. Similar scenarios have the potential to play out for other Indigenous communities and tribal nations as their leaders rearticulate the importance of kinscapes and their respective relationships to place. Importantly, these rearticulations are likely to underscore the world's fragile ecological diversity while also emphasizing the myriad creative ways in which Indigenous people give voice to, and interact with, kinscapes and

<sup>124</sup> Sibyl Diver, "Native Waters at Risk: Learning to Listen," *Stanford: Water in the West*, 27 March 2018, at <https://waterinthewest.stanford.edu/news-events/news-insights/native-waters-risk-learning-listen>.

<sup>125</sup> Shelley Marshall, Suzi Hutchings, and Carla Chan Unger, "When Native Title Fails: First Nations People Are Turning to Human Rights Law to Keep Access to Cultural Sites," *The Conversation*, 21 Oct. 2021, at <https://theconversation.com/when-native-title-fails-first-nations-people-are-turning-to-human-rights-law-to-keep-access-to-cultural-sites-169634>.

kinscape nodes. In this sense, Indigenous kinscapes are seen and unseen; they are the living connective tissue that binds people to community in prayer and ceremony, and are manifested in the shape of the land; the hydrology of a river or aquifer; and the feel, sound, and smell of a place.<sup>126</sup> The depletion of the Coachella Valley aquifer, and Adani's appropriation of the waters from Doongmabulla Springs, bring into focus the importance of Indigenous sovereignty in long-term groundwater stewardship in Australia, in the United States, and around the world.

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<sup>126</sup> Yi-Fu Tuan, *Space and Place: Perspective of Experience* (Minneapolis: University of Minnesota Press, 1977), 179–98; Umeek (E. Richard Atleo), *Tsawalk: A Nuu-chah-nulth Worldview* (Vancouver: UBC Press, 2004), 88–89.