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# Balance on Every Ledger: Kwakwaka'wakw Resource Values and Traditional Ecological Management

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## 10

# BALANCE ON EVERY LEDGER

## Kwakwaka'wakw resource values and traditional ecological management

*Douglas Deur, Kim Recalma-Clutesi, and Chief Adam Dick*

On the Pacific coast of Canada, where the temperate rainforests meet the island-studded sea, the Kwakwaka'wakw have lived since before remembered time. There, the Kwakwaka'wakw (often, if inaccurately, called the “Kwakiutl”) have dwelt in coastal villages, each community organized into clans overseen by specially trained chiefs who administer both worldly and spiritual life. These communities are world-renowned for their wealth: their abundance of natural resources and resource harvesting skill; their rich artistic and oral traditions; their ceremonial tradition that engages domains both tangible and intangible, seeking balance in the human and natural worlds. Clan chiefs (*Oqwa'mey* or *Tla'qwa'mey* in Kwak'wala) who oversee this wealth are traditionally aided by an entourage of key assistants: talented public speakers, shamans, woodcarvers, and many others, all working with chiefs to advance community interests, drawing on specialized training received from elder specialists in those fields. Traditionally, the clan chief and his assistants continuously invoked, shared, and applied core values in relationships to the lands and resources of the Kwakwaka'wakw world. In turn, these values have made a discernible imprint upon their home landscapes, fostering resilient human-environment relationships that have long sustained both human and biotic communities.

Here, we seek to summarize some of these core environmental values of the Kwakwaka'wakw (Kwakiutl) people, and to explore how they manifest in the traditional management of coastal natural resources. In doing so, we draw especially from the teachings conveyed by Chief Adam Dick, Kwaxistalla, chief of the *Qawadiliqalla* [wolf] clan of the *Dzawada'enuxw* [Tsawataineuk] Kwakwaka'wakw—from Kingcome Village, on the mainland coast of British Columbia. One of the last chiefs to have been fully trained in the traditional way, Kwaxistalla was isolated from the non-Native world for many years in his youth, being systematically educated in all aspects of chiefly knowledge—from the most profound to the mundane. His teachers consisted of a core group of clan chiefs born in the nineteenth century, who resisted cultural erosion by entrusting their core teachings to Kwaxistalla and a small number of other children, urgently hoping they might carry forward these teachings into the coming century and beyond. His training was directed by three main clan chiefs: *Kodi* (Dick Webber), *Giyu'sti'stalathl* (Herbert Johnson), and Adam's grandfather, who held the title of Kwaxistalla at that time; these three men, in turn, arranged to have other clan chiefs provide lessons over the course of several years, providing young Adam with specialized training in their particular areas of expertise. The traditional ecological knowledge conveyed to Kwaxistalla through this intensive traditional

education, and passed on by him in turn, has provided a wealth of detail omitted from past writings on Northwest Coast cultures. In recent decades, this methodically transmitted knowledge has launched a revolutionary reinterpretation of cultural ecologies along the entire coast (Deur and Turner 2005; Mathewes and Turner 2017). It is from that authority, rooted in the teachings of the deep past, that we offer comment and clarification on many points of enduring concern.

Outside of the Kwakwaka'wakw world, in the academic domain, much has been written regarding the connection between traditional environmental values and the resource management practices of Native American communities—a topic of perennial interest to both academic and popular audiences. While these accounts generally accept that “resource conservation” has long been integral to Native American cultural practices in various ways, written treatments tend to be speculative, imprecise, and romanticized—at once mischaracterizing entire cultures and misleading those who might wish to learn from their examples. This is of much interest to the Kwakwaka'wakw, who have occupied a unique position in the literature and logic of academic anthropology. Being the focus of nearly five decades of research by Franz Boas, starting in the late nineteenth century, as well as his students and later generations of researchers, “Kwakiutl” cultural practices have been a source of inspiration, and a subject of considerable speculation on human-environment themes, since the beginnings of American anthropology (e.g., Boas 1921, 1966; Curtis 1915).

Of particular interest to anthropologists has been the institution of the “potlatch” (*pa'sa* in Kwak'wala). The term is so woven into academic discourse, and so contested, that we might start with a conventional definition taken from Merriam-Webster dictionary. There we find “potlatch” defined as “a ceremonial feast of the American Indians of the Northwest Coast marked by the host's lavish distribution of gifts or sometimes destruction of property to demonstrate wealth and generosity with the expectation of eventual reciprocation.” Much of what was originally written of the potlatch in academic contexts resulted from Franz Boas' collaboration with George Hunt. A man of mixed Tlingit and English ancestry, Hunt was born near the Kwakwaka'wakw community of Fort Rupert, where his family were employed by the Hudsons Bay Company (HBC) fur trading post. Based in Fort Rupert, marrying into the community, Hunt recorded Kwakwaka'wakw ethnographic information and collaborated with Boas in its translation (Boas 1966). Yet Hunt encountered many barriers to the transmission of traditional knowledge, for many reasons. Social and demographic upheaval in Boas' time allowed untrained people—including some of Hunt's main informants—to make tenuous claims on chiefly titles and unoccupied roles without the benefit of prior training. Through his wife, Hunt was tied to the 'Nak'waxda'xw (Nakoaktok) people, whose language and practices are somewhat distinct from other Kwakwaka'wakw; our recent translation efforts show that some large part of the Boas corpus recorded by Hunt and presented as Kwakwaka'wakw was instead of 'Nak'waxda'xw origin. Hunt also had a sometimes awkward relationship with Kwakwaka'wakw communities by virtue of his family's connection to the HBC, often resulting in a lack of access to traditionally trained clan chiefs and others with specialized cultural knowledge. The Kwakwaka'wakw—especially its clan chiefs and closed “secret societies” that possessed ceremonial property—maintained very strict prohibitions on the public disclosure of specialized or sacred knowledge by specialized practitioners, as well as discussions of the meanings and motives behind traditional ceremony. Thus, lacking open access to the larger corpus of Kwakwaka'wakw philosophy and oral tradition, Hunt and Boas often struggled to translate the Kwak'wala language and many key concepts. They could observe patterns of activity, but had limited access to the organizational principles that put these patterns into motion. These were only some of the challenges the two men faced. Boas, too, famously sought to publish his data in relatively raw

form, often presenting translated narratives of Hunt's informants without providing substantive editing, context, or commentary.

Lacking a full and meaningful context for Boas' many accounts of the potlatch, academic audiences could behold only the outwardly apparent mechanics of the potlatch, dazzled by these staggering exchanges of chiefly wealth. To the extent that Boas' data was reliable, its meaning remained largely in the eye of the beholder. In this context, Boas' raw documentation of the "Kwakiutl potlatch" became common academic property, and an epistemic blank slate onto which generations of scholars inscribed their own agendas. Each reinterpreted the potlatch in response to prevailing academic fashions: interpreting the ceremony as ritual warfare (Codere 1950), as a richly symbolic assertion of chiefly status (Drucker and Heizer 1967), as a ritual mediation of social relations through the universal practice of gifting (Maus 1990), as psychological evidence of underlying paranoid and megalomaniacal tendencies endemic to a Kwakiutl "personality type" (Benedict 1934: 173–221), as status-seeking through the navigation of fundamental unconscious "mental structures" as proposed by Lévi-Strauss (Rosman and Rubel 1971), as a venue for the exchange of Freudian sexual and scatological symbology (Dundes 1979), and so forth. A full treatment of academic interpretations would require a broad, encyclopedic review (though useful starting points are found in sources such as Suttles and Jonaitis (1990) and Drucker and Heizer (1967)). Too often, these competing depictions proved more revealing of the academic allegiances and predilections of the authors than of anything particular regarding Kwakwaka'wakw culture. Moreover, without recourse to the underlying cultural logic as understood by clan chiefs and other officiating knowledge-holders within the potlatch tradition, these writings tended to depict the potlatch and most other Kwakwaka'wakw cultural practices as spectacles, often pathological in intent, serving to advance the most selfish and infantile human instincts. In this regard, the academic discourse is so uniquely longstanding, diverse, and revealing that it provides a valuable cautionary tale for the academic representation of Indigenous cultures worldwide.

Environmental anthropologists also played a role in this discourse. A half century ago, cultural ecologists began to consider whether the potlatch might have ecological influences or consequences. Authors such as Suttles (1960), Vayda (1961), and Piddocke (1965) noted that higher-status clans and chiefs among the Kwakwaka'wakw and their near neighbors tended to also possess the most abundant resources. Resource abundance, they suggested, contributes to the status of clans: such wealth allowed chiefs to enhance their standing relative to other chiefs through displays and redistributions of this wealth in the potlatch. Furthermore, these authors suggested clans might be more successful at holding and expanding their resource holdings by virtue of this enhanced status. In this sense, resource wealth begat the potential for more wealth. These writers suggested that, cumulatively, the arrangement enhanced the resiliency of clans and the Kwakwaka'wakw people as a whole. Piddocke, for example, concluded that

[I]n aboriginal times the potlatch had a very real pro-survival or subsistence function, serving to counter the effects of varying resource productivity by promoting exchanges of food from those groups enjoying a temporary surplus to those groups suffering a temporary deficit.

(1965: 244)

These analyses, however, were tentative at best. And, understandably, were rejected as crude ecological functionalism. In short order, they were eclipsed by a procession of alternative interpretations of the potlatch and of Northwest Coast culture practices (Orans 1975).

In truth, the meaning and context of the potlatch were lost in translation, along with most other aspects of Kwakwaka'wakw culture. The muddled transmission of ethnographic information into the outside world, along with the enduring, almost obsessive academic fixation on interpreting the potlatch, eclipsed some of the most fundamental truths and organizing principles defining Kwakwaka'wakw life. The potlatch has always been important but, we contend, can only be understood as a manifestation of a much larger system of cultural practices and ceremonies. In turn, these practices are guided by an underlying system of values and beliefs permeating all aspects of Kwakwaka'wakw culture. We do not pretend to explain Kwakwaka'wakw cultural values and beliefs in full here, but to offer corrections regarding key points of misinterpretation.

In many ways, reciprocal exchanges, as seen in the potlatch, permeate almost every other traditional Kwakwaka'wakw institution, and have been fundamental to the organization of all social, ceremonial, and economic life. These reciprocal exchanges are guided by a system of ethics and belief asserting the importance of “balance” in all relationships. Aided by an entourage of specialists, clan chiefs traditionally work in diverse arenas to maintain balance between communities through reciprocal exchanges—on the potlatch floor, but in myriad other arenas as well. With the goal of achieving “balance,” they actively monitor and correct imbalances through many mechanisms, for example, the giving of material gifts, the repayment of specific material debts, and the offering of ceremonial honors and praise. The exchange or accumulation of wealth is not the ultimate goal. All of these interventions, tangible and intangible, are means to achieve greater ends.

In being attentive to all debts and their meticulous repayment, we build up the status of the clan and its chief. True, those of noble title work to sustain our reputation, to “keep our name good,” as the anthropologists recognized, and this is also an important cultural value. But this is no hollow status-seeking, nor is it a selfish zero-sum competition. It is accomplished by giving, by ensuring the well-being of the people, by sustaining human relationships, by maintaining mutually sustaining balances over time. Indeed, these chiefly “names” are enduring. They outlive individual chiefs. The chiefly seat starts at the beginning of remembered human time and is passed down to the right bearer in each living generation. The name holds the person for a generation, just as much as the person holds the name and chiefly identity. In “making our name good,” we are therefore working not to raise the status of a single living individual through the potlatch and all other Kwakwaka'wakw cultural practices, but to sustain the seat currently held by that individual over centuries—ensuring that a traditionally trained clan chief takes a long-term view of debt and its repayment, of decorum and reciprocity, and of balances over deep time. We seek to live up to the greatness of our name.

This system of reciprocal obligation creates a sprawling network of interpersonal relationships that bind together people and whole communities according to a set of shared rules. When one chief receives a gift from another chief, for example, some form of repayment is typically due. In any human endeavor, debts might accrue. If repayment is not made, this creates imbalances of many kinds: economic, titular, social, emotional, and otherwise. These imbalances can be unsettling, even damaging, if they cannot be adequately repaid in time. Participants in the potlatch, but also other Kwakwaka'wakw ceremonies, engage in a constant inventory of obligations and the systematic rebalancing of relationships. This “systematic inventory and rebalancing” is of such importance that it is a collective enterprise, involving multiple specialists alongside the clan chief. Specially trained “potlatch recorders” (*Qa'qa'stuw'wa* in Kwak'wala) have operated as advisors to clan chiefs, and part of a chief's core entourage, especially before the advent of written language. Recruited in childhood, trained to sharpen their already prodigious memorization skills and fidelity to facts, these individuals track every transmission of

property—material and immaterial—within the potlatch and other ritual exchanges. They do this “so that there will be no mistakes,” so that all people can maintain appropriate balances between clans, between villages, between chiefs and commoners, between living and future members of the clan, between every imaginable part of human society. Continuously, through the potlatch but also in many other social and ritual contexts, the clan chief and his specialists collaborate to systematically assess their balance in each social domain, on every possible ledger, and to find ways to rebalance relationships in which potentially damaging debts are found. This is not only an economic obligation of the clan chief, but a spiritual obligation rooted in the most fundamental aspects of Kwakwaka’wakw cosmology and belief.

Yet gifts come in many forms. The food one harvests is a gift; even a single fish is understood as a gift from the Creator, from the fish that gave its life for our sustenance, and from all of the other beings dependent on fish for their survival. The weight of this gift is even greater, recognizing that the fish—indeed, any living being consumed for our benefit—is traditionally understood to be alive, sentient, possessing a spiritual identity all its own (Goldman 1975; Walens 1981). Killing is a weighty act, even as it is by necessity an everyday act. To do so lightly, without acknowledging the depth of the gift, is to unsettle a key relationship—a relationship necessary for the very survival of ourselves, our loved ones, and our entire community. Embedded in Kwakwaka’wakw values is an understanding that if we show disrespect, if we upset the balance of our relationships with the fish and other species on which we depend, they are likely to reciprocate in kind. To receive the gift of food requires repayment, then, a meaningful show of respect. Like any gift from a neighboring human community, this precious gift requires an acknowledgment, careful monitoring, and the systematic reciprocation of “interspecific” obligations between human and non-human beings. Our relationship with all near neighbors is “systematically monitored and rebalanced” over time to ensure enduring, stable, and mutually satisfactory relationships.

To be sure, this is a difficult balance to strike when members of one species day in and day out, year after year, kill and eat members of another. This is an awkward foundation for a relationship with any neighbor. For it is not just any member of a species being killed, but a member of that bounded and enduring population of the species that lives in close proximity, as the salmon of a particular stream or the edible plants of a particular valley are consumed by generation after generation of their human neighbors. The great-grandparents of one fed the great-grandparents of the other; if we show proper respect, the great-grandchildren of the present generation, of both species, will continue to honor this arrangement. In this way, all living beings in a clan’s territory are bound together in some manner, biologically, but one might also say spiritually and ethically. Interventions are important and, by necessity, are both ceremonial and material. In the systematic review and rebalancing of our debts, non-human species are also included.

Adding to this, in all actions, chiefs are guided by concepts of wealth that hinge not just on resource abundance now, but on the consistency and predictability of that abundance to support all of these relationships over deep time—to sustain future generations of clan chiefs, to uphold their wealth and nobility, and to sustain future generations of the species on which they depend. A clan chief and his advisors are thus obligated to sustain those “natural resources” in their control, building additional motives for conservation atop those already suggested.

Together, it is appropriate to say that such cultural values and practices gave Native communities of coastal British Columbia incentives to sustain natural resource wealth over deep time, to avoid resource overexploitation, and to incrementally intensify natural resources through diverse means (Turner 2014). Moreover, these values and practices are manifested in many ways that are still seen on the land. The traditional ecological teachings of Chief Kwaxistalla

suggest the importance of such values in the active management of a number of marine resources, including salmonids, eulachon runs, cultivated “clam gardens,” and estuarine root gardens. Long overlooked by academic researchers, these practices demonstrate not only a sophisticated appreciation of nearshore ecology and its potentials. They also illuminate how the overarching conservation values of the Kwakwaka'wakw people, the constant “inventory and rebalancing” within reciprocal relationships, have manifested in specific maritime resource management traditions.

The care traditionally applied to the management of staple fish species helps to illuminate this point. The most important staple of the Northwest Coast, Pacific Salmon (*Oncorhynchus* spp.) have always occupied a preeminent role in Kwakwaka'wakw subsistence, and still play a central role in the diet today. So too, another anadromous species, eulachon (*Thaleichthys pacificus*) has served as a source of staple food and a nutritious oil used widely within Kwakwaka'wakw cuisine. Displays of material and symbolic “respect” have been applied to each in an attempt to sustain a balanced relationship. Chief Adam Dick recalls that ceremonies traditionally mark the first arrival of fish, and thanks are offered throughout the harvest—honoring the fish and the Creator for their sacrifice. So too, under certain circumstances fish bones are ceremonially placed back into the water, or fish transported to replenish other waterways—actions at once undertaken to “gift” the fish, to demonstrate “respect” to many beings, while also having biophysical consequences likely to enhance fish productivity (Thornton, Deur, and Kitka 2015).

Chief Adam Dick also recalls teachings that clan chiefs, aided by shamans and other specialists, traditionally monitored the harvest of these species within the rivers in their jurisdiction. When fishers had caught enough to meet dietary needs, plus a little extra for feasting, gifting, and trade, the chiefs ordered fishing to cease. Factored into the decision were also the scale of that year's fish run, the scale of those of preceding years, and any recent natural events such as landslides that might affect future runs. This was not done simply to avoid the mechanical reality of overharvest. It was also done to show due respect to the fish, the Creator, and all living beings—human and non-human—that rely on the same fish for survival, in addition to future generations of the clan. In these ways and others, the clan chief and his advisors carry out a systematic inventory of the many interrelated obligations—to the fish, to other people, to all the other sentient debtors and creditors of the world—in order to make an informed decision as to when harvests must cease and when other interventions are required. The consequences of disrespect, including overharvest or other adverse impacts, are understood to come back to the harvesters through multiple modalities, requiring attention to each ledger, requiring balance on every ledger.

This attentiveness to fish populations reflects not only their centrality within the diet, culture, and cosmology of Kwakwaka'wakw people, but suggests a shared cultural memory of occasional experiences with fish scarcity. And, as Chief Adam Dick attests, there were sometimes years when the fish, particularly salmon, did not return (*wi'yum'galleese* in Kwak'wala). At these times, clan chiefs and their advisors sometimes made the difficult decision to pack up the entire community and move to clam “gardens” (*lokiwey* “rocks rolled to clear the ground”) many kilometers away. As taught to Chief Adam Dick when he was a child, these clam gardens were often constructed by moving stones out of clam beds to form low, wall-like structures in the lower intertidal zone. In addition to clearing obstacles for clam occupation of mudflats, the low walls served to entrain sediment and laterally expand productive clam beds (Deur, Dick, Recalma-Clutesi, and Turner 2015; Lepofsky et al. 2015). Largely undocumented in the anthropological literature until recently, with the ethnographic data provided by Chief Adam Dick, these structures verifiably enhanced the scale, productivity, and predictability of clam bed output within clan territories



(Grosbeck 2014). Yet these were not simply engineered environments, meant to increase food output. They were manifestations of much deeper Kwakwaka'wakw knowledge and values. As with other types of resources, ancestral Kwakwaka'wakw observed what modifications intensified clam output, but their assessments were not simply mechanical. If the clams appreciated a change in their environment, they came back more abundantly. If they were to be consumed in large quantities, respects were required: tending the beds; removing rocks, sticks, and the occasional predatory starfish; improving the quality and extent of shoreline habitable to clams. Clams, famously immobile, were a stable food, and could be critical as a backup resource in lean times. Yet clam gardens were not only a risk-reducing locus of emergency food. They were arguably a "locus of respect," where long-term investment in a particular clam bed and the clams living therein ensures their assistance in a time of need. In maintaining this balance with the clams on which the people depend, a clan chief might maintain the required balances in human domains as well.

The same fundamental logic applies to the traditional management of many other coastal plants and animals. It applies to the estuarine root gardens—*tekilakw* ("places of manufactured soil"), where Kwakwaka'wakw harvesters enhanced culturally preferred estuarine root foods, including Pacific silverweed (*Argentina pacifica*), Springbank clover (*Trifolium worksjoldii*), and occasionally such species as Chocolate lily (*Fritillaria camschatcensis*) and Sea milkwort (*Lysimachia maritima*) (Deur 2005). Individually demarcated root garden plots are traditionally weeded, edible roots transplanted, the soil turned, root-eating predators discouraged, rocks removed and placed lower in the tidal column—sometimes allowing for the lateral expansion of good harvestable ground within the intertidal zone. Here too, Chief Adam Dick's teachings have been key in reconstructing elements of the cultivation process. Controlled experiments that mimic traditional management, as per these teachings, have been demonstrated to measurably enhance food plants in these gardens (Lloyd 2011; Pukonen 2008). We see this too in the harvest of eelgrass (*Zostera marina*), which, when done according to methods prescribed by Chief Adam Dick and his teachers, has been shown to enhance plant output for the benefit of plants and human harvesters alike (Cullis-Suzuki et al. 2015). Many other plant and animal species received similar care, and ongoing documentation and testing show similar outcomes: cultivated crabapple groves and camas patches (*Malus fusca* and *Camassia* spp.), carefully tended ancient red cedar (*Thuja plicata*) trees, and other traditionally managed resources along the shoreline. Again, the goals of these techniques are utilitarian to a point, but manifest a much deeper Kwakwaka'wakw appreciation of the world and its workings. By investing in these traditionally managed habitats, the ancestors gave the species or habitat their support, becoming an ally in struggles with prey species, weeds, and space limitations. By doing so, they recruited them to their own cause, providing the clans with sustenance and risk-reduction, but also success in many other domains, including even potlatches and other feasts where those foods supported the good of the clan and others. Treated with due respect, even a humble root or clam can help "keep our name good."

Returning to the classic debates in environmental anthropology, we see a hint of truth in Piddocke's claims from decades ago. There is no doubt that resource intensification and redistribution practices have given Kwakwaka'wakw communities successful mechanisms for dealing with short-term environmental perturbations: temporary crashes in salmon runs could be offset by an abrupt dietary and geographical shift to clam beds meticulously cultivated for that very purpose, or might be offset by chiefs' careful negotiation of obligations between clans, communities, and individuals. Over time, these practices affected their general fortunes.

Yet counter to the claims of those past academic writers, resource wealth is only a small part of the story. The currency gained in this series of transactions is economic, social, and



spiritual, with each “resource” possessing its own intrinsic significance. As embodiments of the Creator’s will, the “resources” themselves are deserving of respect, of reciprocal care for their part in our sustenance and our success. As clan chiefs seek to strike balances on every ledger, these resources are factored into deliberations in myriad ways. In turn, these values traditionally place clear limits on resource over-exploitation. To overexploit resources would be reckless and would generate unwelcome debts and possible retribution from a long list of creditors. So too, it would be unthinkable, traditionally, to cut down an entire patch of forest and replant that ground with alien species with whom we have no prior relationship. Introduced agriculture was nonsensical to the Kwakwaka’wakw ancestors who encountered it. But the incremental, respectful enhancement of what is already there, those species with which we have longstanding relationships of mutual benefit—this is at the heart of traditional Kwakwaka’wakw cultivation or *qwakqwala’owkw* (literally “keeping it living”), the term used by the ancestors and shared with us by Chief Adam Dick to encapsulate the traditional management methods described here. Potlatches might aid in food redistribution, but it is the underlying Kwakwaka’wakw values, the ceremonial practices, and the traditional management strategies that converge within the potlatch and *qwakqwala’owkw* that supported the resiliency of the Kwakwaka’wakw people and the natural resources of their homeland over deep time. Perhaps settler societies might embrace parts of this tradition in times to come, systematically assessing and rebalancing debts in multiple domains—to recognize forgotten gifts and unpaid debts on multiple ledgers, and to identify and fix broken things. With our mutual interests and our shared fate in this world, we might all benefit from a tradition of assessment, restoration, and rebalance that the Kwakwaka’wakw have long understood to be a sacred trust.

Ultimately, Indigenous Ecological Knowledge is shaped by the most fundamental values of Indigenous Peoples. These values shape organizing principles and motivations, and determine the many mechanisms through which Indigenous Ecological Knowledge is made manifest in the world (Berkes 1999). To speak of Indigenous Knowledge without the broader context of these values is nonsensical, and can lead scholars and other outsiders to misunderstandings—misunderstandings that do violence to the subject and may even begin to affect the practices and recollections of traditional knowledge within Indigenous communities. Here we provide an antidote. By providing this very cursory discussion of traditional Kwakwaka’wakw values relating to nature and culture, we undermine the contradictory and often wildly speculative views put forth in a century or more of academic discourse. In its place, we offer a more coherent and consistent view of key organizing principles, perhaps allowing academic audiences to glimpse how the potlatch, traditional resource management, and so many other aspects of Kwakwaka’wakw culture fit together into a rich and coherent whole. Past representations of Kwakwaka’wakw more often than not were comically inaccurate. As clearly suggested by the account presented here, past academic mistakes can be overcome by long-term collaborations between academic researchers and specialized knowledge holders from Indigenous communities, such as Chief Adam Dick. This approach provides researchers with access to accurate and nuanced understandings of environmental phenomena, the immediate guidance and correction of trained knowledge-holders, and a clearer understanding of how cultural values might manifest within traditional land and resource management practices. On this academic ledger too, we might yet strike a balance.

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## References

- Benedict, Ruth 1934. *Patterns of Culture*. New York: Houghton Mifflin.
- Berkes, Firket 1999. *Sacred Ecology: Traditional Ecological Knowledge and Resource Management*. Philadelphia, PA: Taylor & Francis.
- Boas, Franz 1921. *Ethnology of the Kwakiutl: Bureau of American Ethnology, 35th Annual Report, 1913–1914*. Washington, DC: Bureau of American Ethnology.
- Boas, Franz 1966. *Kwakiutl Ethnology*, ed. H. Codere. Chicago: University of Chicago Press.
- Codere, Helen 1950. Fighting with property. *Monographs of the American Ethnological Society* 18. ed. Marian W. Smith. New York: J.J. Augustin.
- Cullis-Suzuki, Severn, Sandy Wyllie-Echeverria, Chief Adam Dick, and Nancy J. Turner 2015. Tending the meadows of the sea: A disturbance experiment based on traditional indigenous harvesting of *Zostera marina* L. (*Zosteraceae*) in the southern region of Canada's west Coast. *Aquatic Botany* 127, 26–34.
- Curtis, Edward S. 1915. *The North American Indian*, vol. 10: *The Kwakiutl*. Norwood, MA: Plimpton Press.
- Deur, Douglas 2005. Tending the garden, making the soil: Northwest Coast estuarine gardens as engineered environments. In Douglas E. Deur and Nancy J. Turner (Eds.), *Keeping It Living: Traditions of Plant Use and Cultivation on the Northwest Coast of North America*. Seattle, WA, and Vancouver: University of Washington and University of British Columbia Press, pp. 296–330.
- Deur, Douglas, Chief Adam Dick, Kim Recalma-Clutesi, and Nancy J. Turner 2015. Kwakwaka'wakw "Clam Gardens": Motive and Agency in Traditional Northwest Coast Mariculture. *Human Ecology* 43(1): 201–212.
- Deur, Douglas and Nancy J. Turner (Eds.) 2005. *Keeping It Living: Traditions of Plant Use and Cultivation on the Northwest Coast of North America*. Seattle, WA, and Vancouver: University of Washington and University of British Columbia Press.
- Drucker, Philip and Robert F. Heizer 1967. *To Make My Name Good: A Re-examination of the Southern Kwakiutl Potlatch*. Berkeley, CA: University of California Press.
- Dundes, Alan 1979. Heads or tails: A psychoanalytic study of potlatch. *Journal of Psychological Anthropology* 2(4): 395–424.
- Goldman, Irving 1975. *The Mouth of Heaven: An Introduction to Kwakiutl Religious Thought*. New York: John Wiley and Sons.
- Groesbeck Amy S., Kirsten Rowell, Dana Lepofsky, and Anne K. Salomon 2014. Ancient clam gardens increased shellfish production: adaptive strategies from the past can inform food security today. *PLoS One* 9(3): e91235.
- Lepofsky, Dana, Nicole F. Smith, Nathan Cardinal, John Harper, Mary Morris, et al. 2015. Ancient shellfish mariculture on the Northwest Coast of North America. *American Antiquity* 80(2): 236–259.
- Lloyd, T. Abraham 2011. Cultivating the Tekkillakw, the Ethnoecology of Tleksem, Pacific silverweed or cinquefoil (*Argentina egedii* (Wormsk.) Rydb.; Rosaceae): Lessons from Kwaxsistalla, Clan Chief Adam Dick, of the Qawadiliqella Clan of the Dzawadaenuxw of Kingcome Inlet (Kwakwaka'wakw). Unpublished MSc thesis. School of Environmental Studies, University of Victoria, Victoria, BC.
- Mathewes, Darcy and Nancy J. Turner 2017. Ocean cultures: Northwest Coast ecosystems and indigenous management systems. In P. S. Levin and M. R. Poe (Eds.), *Conservation for the Anthropocene Ocean: Interdisciplinary Science in Support of Nature and People*. Cambridge, MA: Academic Press, pp. 169–199.
- Mauss, Marcel 1990. *The Gift: Forms and Functions of Exchange in Archaic Societies*, trans. W. D. Hallis, London: Routledge.
- Orans, Martin 1975. Domesticating the functional dragon: An analysis of Pidocke's potlatch. *American Anthropologist* 77(2): 312–328.
- Pidocke, Stuart 1965. The potlatch system of the Southern Kwakiutl: A new perspective. *Southwestern Journal of Anthropology* 21(3): 244–264.
- Pukonen, Jennifer C. 2008. *The X'aayaŋas Project: Revitalizing Traditional Nuu-chah-nulth Root Gardens in Ahousaht, British Columbia*. Unpublished M.Sc. thesis. School of Environmental Studies, University of Victoria, Victoria, BC.
- Rosman, Abraham and Paula G. Rubel 1971. *Feasting with Mine Enemy: Rank and Exchange Among Northwest Coast Societies*. New York: Columbia University Press.
- Suttles, Wayne 1960. Affinal ties, subsistence, and prestige among the Coast Salish. *American Anthropologist* 62: 296–305.

- Suttles, Wayne and Aldona Jonaitis 1990. History of research in ethnology. In *Handbook of North American Indians*, vol. 7: Northwest Coast. Washington, DC: Smithsonian Institution, pp. 73–87.
- Thornton, Thomas Fox, Douglas Deur, and Herman Kitka, Sr. 2015. Cultivation of salmon and other marine resources on the Northwest Coast of North America. *Human Ecology* 43(2): 189–199.
- Turner, Nancy J. 2014. *Ancient Pathways, Ancestral Knowledge: Ethnobotany and Ecological Wisdom of Indigenous Peoples of Northwestern North America*, 2 vols. Montreal: McGill-Queens University Press.
- Turner, Nancy, Douglas Deur, and Dana Lepofsky 2013. Plant management systems of British Columbia's First Peoples. *BC Studies* 179: 107–133.
- Vayda, Andrew P. 1961. A re-examination of Northwest Coast economic systems. *Transactions of the New York Academy of Sciences* 23: 618–624.
- Walens, Stanley D. 1981. *Feasting with Cannibals: An Essay on Kwakiutl Cosmology*. Princeton, NJ: Princeton University Press.