Decolonization through Environmental Restoration and Stewardship in Native American Communities

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ABSTRACT

California's Native Americans represent an extraordinarily diverse group of cultures that are under continual threat of extinction due to colonial influences. The central component of tribal life that enables cultural continuity is the Native Peoples' relationship with the natural world. The legacy of environmental degradation and land dispossession disrupted this vital connection. As indigenous Californians navigate decolonization through environmental restoration and stewardship, assessing various factors' relative impact on tribal initiatives presents a number of practical challenges. By focusing on a subset of California's native communities and employing a phenomenological qualitative approach, I seek to identify impeding and facilitating influences on tribal ecocultural revitalization. Key informant interviews and literature analysis provide an insight into the range of current environmental problems on tribal lands, solutions the tribes seek out and key impacts on the projects' outcome. My findings suggest that indigenous Californians included in the study are most concerned with environmental health, cultural species loss and climate change impacts. The eco-restorative programs the tribes pursue focus on subsistence traditions' revitalization, climate change adaptation, conservation and green economic development. I conclude that community involvement, funding, social climate, policy landscape and partnerships are key influences on the ecocultural projects surveyed.

KEYWORDS

ecocultural revitalization, Native American conservation, environmental policy, subsistence, indigenous climate adaptation

INTRODUCTION

A trend of sympathetic curiosity about the struggle for cultural revival sustained for many generations by the North American indigenous communities brought into the spotlight the issue of long-term cultural viability of native peoples (Nagel 1997). With greater awareness, American Indian heritage is explored through postcolonial lenses and is increasingly recognized for its intrinsic value and vital contributions towards the modern-day United States (Champagne 1996). The outcomes of such introspection are inevitably the realization that the national identity is deeply intertwined with the indigenous legacies and that colonialism, having culminated in persistent genocide, contorted many of the traditional aspects of living beyond resurrection (Hurwitz 2019). The urgency of revitalization of any and all viable cultural elements associated with the tribal life becomes all the greater. However, there exists no framework of rebuilding something so complex, distinct and diverse. Indigenous groups embark on the path with many resistances, competing priorities, few allies and even fewer resources (Diver 2016). Ultimately, the methods that one tribe may choose to employ in its bid for survival will be distinct from those of another nation, yet a set of unifying principles underlies a general trajectory of tribal cultural revitalization (Nagel 1997).

One of the central elements of tribal life that serves as a cultural binding to native communities is their relationship with the natural world (Power and Chapin 2009). Contrary to the prevalent, romanticized stereotype of an American Indian as the original environmentalist, a selfless steward invested more in nature's conservation than own survival, native peoples of North America actively modified ecosystems, utilized natural resources and developed a sophisticated system of rules governing sustainable resource management (Anderson 1997). With references to "animals, fish, trees, and rocks – as our brothers, sisters, uncles and grandpas" the foundational value of intact ecosystems to indigenous culture is readily apparent (LaDuke 2015). Many tribal nations are undertaking restoration projects attempting to remedy widespread environmental degradation of their ancestral and tribal territories – a colonial legacy manifested in abandoned mines, decimated salmon populations due to dam construction, native plants disappearance with history of fire suppression, groundwater, air contamination and heightened climate change vulnerability (Hormel and Norgaard 2009, Reyes-García et al. 2019). The employed remediation and decolonization tactics are both traditional and innovative. In keeping with the cultural legacy tribes utilize a community-based approach, facilitating generational knowledge transfer,

participating in acts of civil disobedience, partnering with neighbors, NGOs, government entities, and academic institutions ("Promoting Tribal Success in EPA Programs" 2007, Whyte 2017). Supporting tribal eco initiatives and acknowledging the American Indian memory of "reference ecosystems" translates into a recognition that the local, indigenous, ecological projects have the exclusive potential to preserve landscapes otherwise irreversibly lost to the global community (Uprety et al. 2012).

Measuring relative impact and success rate of the tribal environmental remediation efforts presents a number of significant challenges. Such analysis requires a systematic, multi-faceted study of variables and context highly specific to each community. Environmental baseline, for instance, is widely varied – the Navajo Nation's lands are presently contaminated with radioactivity from uranium mining while the Mohawk are experiencing adverse ecological effects of the phragmites' aggressive displacement of native plants (Brugge and Goble 2002, "Saint Regis Mohawk Tribe Environment Division Environmental Assessment Form" 2007). Both tribes are navigating through a web of conflicting state, federal and regional regulations, historical land rights, and disputes with neighbors and environmental groups (Brugge and Goble 2002, "Saint Regis Mohawk Tribe Environment Division Environmental Assessment Form" 2007). Notwithstanding, the blueprint for environmental racism often transcends structural differences, thus exploring unifying themes in environmental decolonization while giving credit to explicit indigenous context allows for better understanding of the complex dynamics affecting Native American communities in their struggle for ecocultural revitalization.

My research focuses on the analysis of the environmental component of the ecological and cultural restoration projects in select Native American communities of California. I seek to identify key inhibiting and facilitating factors affecting the tribes' initiatives in order to contextualize the landscape of indigenous environmental restoration and stewardship statewide. To address these research questions, my data collection aims to complement interview responses of indigenous representatives with secondary literature analysis while remaining an unprejudiced researcher and attempting to convey native peoples' untampered perspectives.

BACKGROUND

Native Americans of California represent an extraordinarily diverse group of people with distinct languages and cultures (Waldman 2006). This population was subject to a traumatic colonization history culminating in genocide, widespread land dispossession and cultural decline (Powers and Heizer 1976). Historical evidence suggests that native communities were thriving in modern California over ten thousand years ago (Baumhoff 1959). No definitive population estimate exists for the pre-contact era, but the likely range is in a few hundred thousand (Baumhoff 1959). Complex social organization, active use of natural resources, and long-term economic and environmental sustainability characterized these early societies (Waldman 2006). The first wave of colonial disruption came in the form of Spanish missionaries in 1700s that established a racial hierarchy relegating native inhabitants to the lowest class exploited for hard physical labor (Starr 2007). As the geopolitical ambitions of colonizing governments clashed and evolved, the welfare of Native Americans continued its precipitous decline (Starr 2007). The mission era was characterized by infections disease outbreaks, enslavement, and forced religious conversion (Starr 2007). As the replacement of intact ecosystems with rangelands expanded, indigenous sustenance traditions became unsustainable and starvation ensued (Powers and Heizer 1976). The loss of Native American life post Mexican independence approached a thirty thousand mark (Baumhoff 1959).

In a New World context, California's history distinguishes itself in terms of the many political power transfers among the foreign countries vying for the control of the land. Mexican rule was short duration, and in 1850 California's statehood and the Act for the Government and Protection of Indians signified an even less dignified existence for local populations (Starr 2007). Euromerican settlers' racially charged aggression resulted in over 350 massacres of indigenous peoples in the first twenty years of American rule (Starr 2007). Exploitative attitudes manifested in enslavement, and cultural intolerance – in persistent attempts to "civilize" the Indian (French and Short 2005). Native "primitiveness" was being remedied with imposition of private property rights, Western educational practices and social norms (French and Short 2005). When the United States Congress refused to ratify negotiated peace treaties on account of the state opposition, California's People were forcibly removed from their ancestral territories and relocated to small reservation plots (Starr 2007). In 1953, the jurisdiction over the reservation lands was transferred

to the state, effectively eliminating Native Californian sovereignty (Kuiper 2011). It was not until 1970s that the tribes were able to start regaining some control over their territories (Kuiper 2011).

Similar colonialization processes were being mimicked nationwide in the past 150 years (Sium et al. 2012). However, California's multiculturalism, historical and present, gives the study of decolonization in California an interesting dimension and a greater complexity. The native inhabitants' differences are so profound that they speak more than 100 distinct languages (Powers and Heizer 1976). Unique diversity is also reflected in California's vast landscape that has been described as an ecological island (Bakker and Slack 1985). From deserts to mountain ranges and coastal habitats, local indigenous groups maintained a wide range of diets, lifestyles and resource management traditions (Powers and Heizer 1976). Moreover, the state's historical treatment of California's Indians turned the ancient communities into some of the most persecuted, marginalized and displaced groups in the United States (Starr 2007). Thus, their path to restoration of self-government, cultural and environmental revitalization also follows a more nuanced trajectory. Another aspect that sets California apart is its distinctive leadership in today's national social and political evolution. An economic powerhouse, the state gravitates towards innovation and liberalism, advancing climate change mitigation, green technologies and social and environmental justice (DeBow and Syer 2015).

The same intricacy of the California's decolonization landscape presents practical challenges to the researcher. There are 109 federally recognized Native American tribes, many communities without an official status and nearly 100 reservations within the state borders (Kuiper 2011). California is home to 12% of all Native Americans nationwide ("California Tribal Communities" 2020). Such diversity leads to the inability to examine and give credit to all the indigenous narratives which may result in reductionist findings.

This research focuses on environmental projects of a small subset of California's tribes. The following sections provide a brief overview of the nations and communities included in the study.

Káruk, Upriver People

The People of Karuk constitute a second largest tribe within the state of California, yet their lands are not part of a formal reservation (Sims 1998). Living in a diverse habitat along the

Klamath River, the Karuk are known for their long-standing democratic principles of governance, sophisticated use of local medicinal and edible plants, basket weaving traditions, ceremonial dances and festivals (Waldman 2006). Many of the Karuk's cultural aspects directly depend on surrounding environment (Marks-Block et al. 2019). From the dawn of time, these People relied on bountiful salmon, acorns and deer for subsistence and were the only indigenous people in California to harvest tobacco (Powers and Heizer 1976). Without a reservation, Karuk's ability to self-govern was historically limited (Hurwitz 2014). The capacity to advance ecocultural objectives has also been stifled by the tribe's poor state of economy (Hurwitz 2014). Pervasive poverty among the Karuk has ripple effects in all areas of tribal development (Oliver 2019, Sowerwine et al. 2019). Median income hovers around just $13,000 with vast majority of the tribal members living below the state's poverty line (Sowerwine et al. 2019). The Karuk are experiencing very high rates of food insecurity with limited access to native food – over 90% of tribal members are experiencing some level of food insecurity and 99% desired greater access to culturally appropriate foods (Sowerwine et al. 2019).

Wa Shi Shiw [Washoe], The People from Here

The Washoe's path in American Indian history is distinct as the Tribe's contact with Euro-American settlers occurred on a much more recent timescale (Makley 2018). Washoe's lands extend from Sierra Nevada mountains to Pyramid Lake in Nevada and include Lake Tahoe and the Truckee River (Waldman 2006). The ancestral dietary traditions are comprised of pine nuts, berries, fish, deer, rabbit and other prey (Waldman 2006). With white settlers' incursion in the nineteenth century, livestock over-grazing, water diversions and the felling of Pinyon pine groves made living off the land unsustainable (Magee 2015). Newly established industries in the Tahoe area – fishing, lumbering, mining and milling – forced many indigenous inhabitants to seek subservient employment opportunities, hastening Washoe's cultural decline (Makley 2018).

Ivilyuqaletem, Cahuilla Indians

The people of Cahuilla occupied vast territories in central Southern California surrounding the Coachella Valley for an estimated 5,000 years (Bean 1972). Their entrepreneurial spirit is

evident in historical records of extensive trade partnerships with neighboring communities (Powers and Heizer 1976). The Cahuilla primarily relied on female labor to procure edible plants (Powers and Heizer 1976). Common native food staples included palm leaves, yucca, agave, mesquite beans and acorns (Waldman 2006). With settler incursion and accelerating development, nineteenth century was a particularly violent period for this indigenous group (Johnson and Yenne 2004, Waldman 2006). After the peace treaties ratification failure, the tribal ancestral lands were divided into small parcels in Palm Springs area where present day Cahuilla still reside (Bean 1972). Some bands presently operate a range of profitable business ventures including resorts and casinos (Gordon 2018).

Susanville Indian Rancheria

California's early statehood left many indigenous Americans without legal access to the lands they called their own for time immemorial (Johnson and Yenne 2004). In 1920, with the enactment of the Landless and Homeless Act, some dispossessed communities were allotted a mere 30 acres in Lassen County ("Susanville Indian Rancheria" 2020). The small landholding became the Susanville Indian Rancheria that housed several groups with diverse tribal heritage - the Washoe, Maidu, and Pit River ("Susanville Indian Rancheria" 2020). In a series of governmental land transfers, the Rancheria grew by nearly 1,500 acres over the course of the century ("Susanville Indian Rancheria" 2020). Nowadays, the reservation practices direct democracy and seeks to promote economic development ("Susanville Indian Rancheria" 2020).

Tipai-Ipai, Campo Kumeyaay Nation

The Kumeyaay's lands in Southern California once traversed the present-day United States boundaries and included areas of Northern Mexico (Johnson and Yenne 2004). The internal structure of the community depended upon familial clans with individual leaders guiding their people on seasonal migrations (Johnson and Yenne 2004). Water was an important resource for the tribal survival and spiritual wellbeing (Waldman 2006). The Kumeyaay were skilled warriors, resistant to forced religious conversion by the Spanish missionaries and are remembered for destroying San Diego Mission in 1769 (Johnson and Yenne 2004). As population boomed in the

nineteenth century, many Kumeyaay fell victims to the settlers' racially motivated raids (Johnson and Yenne 2004). Subsequently, the People's indigenous lands were fragmented with small fractions allocated to the Tribe (Kuiper 2011). Today, Kumeyaay promotes language revitalization and sustainable water management (Starr 2007).

Yuh'ára, Yurok Tribe

The Yurok are sharing Klamath's rich ecological resources with a number of neighboring tribes including the Karuk (Marks-Block et al. 2019). Living downstream, the Tribe's subsistence traditions incorporated Pacific Ocean's bounty such as shellfish and whale, Klamath's salmon as well as acorns and game from surrounding forests (Buckley 2002). Concentrated in small fishing villages, the Yurok were esteemed for basket weaving, had a complex social stratification and practiced slave ownership (Buckley 2002). Historically, tribal members employed active ecosystem management including cultural burns (Marks-Block et al. 2019). Presence and abundance of native species are foundational to the groups' existence and cultural identity (Marks-Block et al. 2019).

Pomo People

Pomo are a very diverse group of California's Native Americans who are linguistically related and historically resided in lands extending from the Pacific Coast to Clear Lake (Baumhoff 1980). Their native diet consists of small prey, acorns and seafood (Baumhoff 1980). The Pomo Indians treasure their spirituality, rich jewelry making, trading and basket weaving traditions (Baumhoff 1980). Colonial disruption came in waves of settlement. Invasions from the Mexican South and subsequently from the East altered the Pomo's lands original location several times (Schneider 2010). Arrival of Russian fur traders signified natural resource exploitation and occupation of indigenous territories, endangering Pomo's traditional way of living (Waldman 2006). At the time of California's statehood, dozens to hundreds of Tribal members were murdered in a retaliatory attack by the U.S. Army in a Bloody Island Massacre (Waldman 2006). Cultural continuity is of primary importance to the Pomo - resurging interest in indigenous traditions,

language and successful entrepreneurial endeavors are some of their current priorities (Cooperrider 2011).

Round Valley Indian Tribes

Round Valley Indian Tribes form a confederation of People with distinct cultural heritage (Waldman 2006). Yuki, Little Lake Pomo, Wailacki, Concow, Nomlacki, and Pit River were dispossessed from their original territories and relocated to a small parcel in Mendocino County, what used to be the center of the Yuki's homeland (Bauer 2009). The formation of the reservation in 1856 brought a lot of inter-tribal friction as the Yuki were forced into a restricted area while foreign to them groups were forcibly relocated into Yuki's remaining grounds (Bauer 2009). The formation of the reservation also coincided with racial tensions perpetuated by white settlers (Bauer 2009). Multiple generations of the reservation's Indians since then reconciled their cultural differences, appointed a democratically elected governing body and ratified a constitution ("Round Valley Indian Tribes" 2020).

Decolonizing Ecocultural Relationship

The socioeconomic indicators of California's indigenous peoples tell a troubling story of a diverse population suffering from some of the highest incidences of poverty rate, unemployment, and food insecurity statewide (Mogull 2006, Sowerwine et al. 2019). While the federal government continues to profess its support for tribal sovereignty and the state's liberal climate produces many sympathizers aligning with indigenous viewpoints, the persistent cultural and socioeconomic slump continues to plague many communities (Royster and Fausett 1989, Cain et al. 2000). These dynamics are no mystery to native Californians (Dhillon 2018). As Rice articulates, the biggest perils of California's conquest did not lie in murderous raids against native villages or introduced smallpox (2014). The systematic undermining of Native American way of life that ensued after the violence subsided is a key factor in a long-term indigenous decline with cascading effects on culture, economies and human wellbeing (Rice 2014). Corntassel suggests that the very meaning of identifying as indigenous implies living in a reciprocal relationship with one's traditional, natural environment (2012). Thus, the United States' encouragement of assimilation through land

dispossession, disruption of native diets, place-based rituals and interactions with local ecosystems is the manifestation of ongoing colonialism that is evident in today's Native American suffering (Cantzler and Huynh 2016). This more subtle, modern colonialism, Rice asserts, is primarily revealed in land use restrictions, compromise of environmental quality and manipulation of property rights (2014).

If colonialism's harm stems from interruption of the vital human-environmental mutualism, the only meaningful way to foster decolonization is through reconnection of the People to their places (Bennett 2017). Decades of colonial resource exploitation necessitates environmental restoration and stewardship of the lands that need to be fertile again and thus useful to Native American resurgence. Methodology is not a trivial issue here. Traditional ecological knowledge (TEK) must be employed in revitalization as decolonization mandates moving away from the dominant's society canon and rediscovering one's own ancestral traditions (French and Short 2005). No alternative mechanism artificially constructed using a foreign reference system can be an effective substitute. Contorting a native knowledge base, trying to justify and make it more palatable to the Western viewpoints reinforces colonial dominance (Cordell 1995, French and Short 2005).

To facilitate decolonization through environmental restoration and stewardship, it becomes imperative to explore the current landscape of tribal environmental initiatives. Analysis of underlying impact factors can generate a benchmark for best practices in future ecocultural projects.

Note on Terminology

For purposes of this research the terms indigenous knowledge, traditional ecological knowledge, and ancestral environmental wisdom are used interchangeably. Indigenous, native and ancestral describe the quality of originating in a pre-European contact era. Ecocultural revitalization refers to the environmental restoration that conveys traditional cultural and ecological benefits.

LITERATURE REVIEW

The scope of the literature addressing possible factors in indigenous ecocultural revitalization in the United States, and California in particular, is mostly limited to specific case studies that tend to abstain from generalization. In the following sections, I present an overview of the legal landscape that shapes Native American present-day relationship with their lands and offer a synthesis of additional influences on tribal environmental agendas.

Policy Landscape

Published literature generally concurs that the current backdrop of environmental restoration by indigenous groups has been broadly defined by the federal government (Bey and Grijalva 1993, Lewis 1995, Dongoske et al. 2015). Goodman asserts that the foundations for all future initiatives have been laid by the U.S. Supreme Court in early nineteenth century with the declaration of Native American tribes to be independent sovereign nations under the U.S. federal government's protection (2000). The decision implicitly included the ability to manage tribal natural resources (Lewis 1995). However, as Royster, Fausett and Rice point out, just a few decades later, with the Senate's refusal to ratify treaties granting California's Indians a legal right to reside in their lands, numerous indigenous groups have found themselves homeless, and to this day unable to advance environmental agendas (1989, 2014).

A series of policy decisions from the 1960s appears to exert legislative power over many aspects of modern American Indian ecological reality. Dongoske et al. describe the implications of the National Environmental Policy Act (NEPA) that guides federal agencies in their task to conduct cost-benefit analyses and impact assessments for development projects with possible ecocultural impacts (2015). The authors critique legislation as outdated with an exclusive focus on financial considerations (Dongoske et al. 2015). NEPA includes no provision for meaningful incorporation, for instance, of tribal environmental concerns (Andrews 1976). The same decade saw an Arizona v. California Supreme Court case that established a concept of "practicably irrigable acres" (PIA) (Redsteer et al. 2013). Under PIA, there is no clear method to quantify tribal water rights (Redsteer et al. 2013). As a result, Wilson estimates, that no more than 10% of tribes nationwide had their water rights legally ascertained (2014). Lewis reiterates the point, referencing

the Winters doctrine of 1908 as an unreasonably vague guideline for water rights, bound to introduce conflict in the arid Western U.S (1995).

Berkey and Williams consider the Indian Self-Determination and Education Assistance Act of 1975 to mark the modern period of Native American – U.S Government relationship (2019). Indeed, substantial body of research credits 1970s with a shift in environmental management and with that, pertinent tribal relations (Lewis 1995, Gottlieb 2009, Rice 2014). Rice considers this era to be important in treaty rights affirmation (2014). A momentous decision in US. v. State of Washington in 1974 is one historic example (Brown 1994, Lewis 1995). The precedent set by Judge George Boldt confirmed tribal fishing rights and inspired ingenious resurgence (Brown 1994). Lewis notes that this regional decision continues to influence Native American natural resource use nationwide (1995).

Lewis goes one to describe the National Environmental Policy Act and the American Indian Religious Freedom Act as incorporating safeguards for cultural uses of natural environment and intending to strike a balance between native people's resource use and fauna protection (1995). In fact, similarly to the water rights debate, the provisions were toothless with little specificity or practical significance (Lewis 1995, Anderson 2013)

A series of other federal acts with environmental focus have been issued in the 1970s. Among them, the Clean Air Act (CAA) and Clean Water Act (CWA) gave full management control to the tribes (Brockman 1992). According to Brockman, the initial versions of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), Safe Drinking Water Act (SDWA), and Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) sidestepped the issue of tribal sovereignty and contained few directives on the Acts implementation on indigenous territories (Brockman 1992). SDWA was subsequently amended guaranteeing a state-like treatment to tribes (Pontius 2003). In contrast, under the Resource Conservation and Recovery Act (RCRA) native communities can still be penalized for non-compliance but possess no power to institute their own standard (Andersen 1978, Brockman 1992).

In further development, President Ronald Reagan is credited with acknowledging that tribal environmental management is best conducted by the tribes themselves (Bey and Grijalva 1993). The Environmental Protection Agency (EPA) took steps to insulate control of indigenous lands from state intrusion, and the U.S. Supreme Court has subsequently granted the tribes the right to regulate actions of members and nonmembers in situations where they "threaten the

economic security, political integrity, or health and welfare of the tribe" (Bey and Grijalva 1993, Collin and Collin 2006).

In more recent legislation, Fugate describes the 2013 Sandy Recovery Improvement Act (SRIA) as a positive step towards tribal environmental sovereignty (Fugate 2013). Under new provisions, tribes can request direct assistance and disaster relief from the federal government (Fugate 2013). Lake et al. acknowledge positive strides but emphasize that certain indigenous practices like cultural burning continue to be illegitimate due to the federal government's inaction and failure to recognize documented, ecocultural benefits (Lake et al. 2017).

Although the legislative evolution has trended in the positive direction for American tribes, the literature does not describe an exclusively helpful progression. Prior to amendment of the CWA and other federal statutes in late 1980s, tribal environmental interests were usually excluded from any serious consideration (Dussias 1999). Despite the eventual recognition of a state-like status for purposes of environmental management, first nations struggled to bridge a widening funding gap and ensure consistent enforcement of federal statutes (Teodoro et al. 2018). The delay also meant that the tribes were excluded from training and other supporting resources that were available to the states for many years (Teodoro et al. 2018). The legacy of this discrimination echoes in Native Americans' present lack of capacity to carry out environmental restoration and protection with the necessary stringency and rigor (Collin and Collin 2006, Teodoro et al. 2018).

The existing complexity of tribal ecological solutions can be further exacerbated by the overlay of state regulations, gubernatorial executive orders and various conflicts of interests arising from stakeholders' disagreement and historical land rights (Royster and Fausett 1989, Singer 2013). Twentieth century saw may states repeatedly attempting to regulate non-native activity on tribal lands (Royster 1991). And as Royster elaborates, the Supreme Court is hesitant to infringe on perceived state rights even if the tribal environmental interests require to do so (1991). The case-by-case decision basis stalls many programs with prolonged litigation and discourages future initiatives (Royster 1991, Singer 2013).

Community Initiative

Select studies recognize the importance of tribal community engagement and organization when advancing ecocultural goals. Corntassel stresses that decolonization is an inherently active

process requiring communities to reflect on collective interests and practice resurgence in all circumstances (2012). "Place-based cultural practices" must become an integral part of daily living (Corntassel 2012). Stevenson, a Cahto member, further elaborates on community involvement recommending that all initiatives grow from the reflective, personal interaction with tribal members, particularly the elders and cultural practitioners (Middleton 2011a). Her expertise stems from serving on a Tribal Council and taking part in multiple conservation collaborations involving indigenous ecocultural resources (Middleton 2011a). The initial community impetus should develop to form a robust tribal organization, capable of dealing with regulatory uncertainty, possible fundraising challenges and outside partnerships (Gittell and Vidal 1998, Middleton 2011a). Stevenson strongly insists that indigenous communities take the time to clearly articulate their environmental and cultural goals, consider anticipated community costs and benefits and gauge initial ecological conditions of the resource or area in question internally, if the circumstances allow (Middleton 2011a).

Phillips does not frame her suggestions for facilitating community initiative as recommendations but instead insists it is a responsibility of every native community to support tribal place-based economy and ecological wellbeing (2006). The issue of community responsibility is also raised by Alfred and Corntassel (2005). The researchers advocate for Native American teachers, mentors and elders to expand the scope of their daily duties and incorporate broader community mentorship to facilitate cultural resurgence and revival (Alfred and Corntassel 2005). Alfred reiterates the argument in his later work, asserting that small-scale mentorship generates bigger, synergetic changes on a community scale that exceed individual benefits (2011).

Public Support, Social Trends, and Partnerships

Apart from the intrinsic, collective motivation of the indigenous community to engage in ecocultural restoration, securing broader pubic support, and partnership formation can promote positive environmental outcomes (Sium et al. 2012).

Royster and Fausett describe how a historical shift in social climate helped raise awareness of indigenous environmental struggles and introduced new allies into the eco-restorative movement (1989). According to them, the resurgence of environmentalism in 1960s had a number of indirect benefits, namely the mostly non-native public pressure culminating in an unprecedented

surge of federal environmental regulation, most of which contained provisions for tribes being treated as states (Royster and Fausett 1989). Over the course of the following decades, the legislation has been improved and refined, expanding tribal capacity and control over their environment (Royster and Fausett 1989, Collin and Collin 2006). Pollution reduction is also understood to be one of the outcomes (Royster and Fausett 1989).

A less helpful consequence of that era and the unfortunate side effect of perceiving native peoples through stereotypical lenses of Euro-American environmentalism is described by Dongoske et al (2015). In these researchers' opinion, NEPA experts are captive to the "ecological Indian" misconception, equating tribal environmental concerns with archaic worldviews of little modern relevance (Rice 2014, Dongoske et al. 2015). However, Uprety et al. consider negative aspects to be outweighed by greater appreciation and recognition of TEK (2012). The growing number of collaborative agreements between government agencies, environmental organizations and tribes suggest traditional resource managements methods are gaining support and experiencing a renaissance (Cronin and Ostergren 2007). According to Uprety et al., meaningful partnerships tend to improve economic as well as ecological outcomes (2012). Reyes-García et al. go further and postulate that a shared vision in restoration planning and policy design is a necessity for long-term viability of any such plan (Reyes-García et al. 2019).

The criticism of outside involvement comes from Stevenson who advises caution in engaging with outside specialists, especially scientists who are accustomed to be the lone voice in directing environmental restoration (Middleton 2011a). She recommends that all would be partners first participate in cultural training (Middleton 2011a). Wayburn agrees and suggests development of robust, culturally sensitive communication channels as a starting point (Middleton 2011a).
Middleton poses that since conventional conservation organizations have been known to acquire lands for preservation and shut out native peoples with historical links to the territories, it can be helpful for tribes to form partnerships with these entities in order to educate about the cultural significance of the places under protection (Middleton 2011b). She cites existent precedent in her book.

Cross-cultural educational theme is common in literature discussing ecocultural restoration and collaboration. Bass, for example, warns that adversarial litigation might be an ineffective way of advancing one's ecological objective under certain conditions (2018). She recommends using community's collective voice and educating the neighbors about the tribe's distinct cultural and

ecological viewpoint (Bass 2018). Digital media can be a suitable, affordable medium of information dissemination and engagement with public (Bass 2018).

METHODOLOGY

The broad extent of my research question, reliance on tribal perspectives and the complexity of the phenomenon under study are best accommodated by a phenomenological qualitative approach (Giorgi 1997). The techniques instrumental in providing a comprehensive picture of my study system incorporate multiple information sources and permit eclectic study design. Utilization of semi-structured interviews of key informants and a secondary analysis of literature allow for a more nuanced and comprehensive exploration of factors that facilitate or impede tribal ecocultural initiatives.

METHODS

The survey of California's indigenous environmental concerns, recent ecocultural initiatives and the circumstances surrounding their development and implementation formed the basis of my data collection. In order to convey the Native American narratives and reflect the range of experiences statewide, I partitioned the study into two stages consisting of a primary qualitative data collection and a secondary analysis.

Primary Qualitative Data

Collaborating with tribal representatives from the Karuk and the Washoe Tribe of Nevada and California, I drafted a formal research proposal for each community's review.

The Karuk's protocol involved addressing specific areas of concern as detailed in the "Practicing Pikyav: Policy for Collaborative Projects and Research Initiatives with the Karuk Tribe" ("Practicing Pikyav: Policy for Collaborative Projects and Research Initiatives with the Karuk Tribe" 2015). My proposal qualified under Tier 2, Exempt Projects requiring a partial review and establishment of a three-person Review Committee consisting of a UC Berkeley postdoctoral researcher with relevant working experience with the Tribe, a local liaison residing within the

Karuk Aboriginal Territory and an employee of the Tribe in a leadership position with the Karuk Department of Natural Resources. The finalized proposal was submitted to the Karuk Resource Advisory Board that subsequently recommended the proposal for approval by the Karuk Tribal Council. The final consent was obtained during a monthly Council meeting.

The research proposal for the Washoe Tribe was drafted in a similar manner and submitted for approval to the Washoe's Culture and Language Resources Director and the Washoe's Cultural Resources Advisory Council member.

The interview guide was designed to be identical for both communities and addressed the scope of research questions. The interviews with key informants in Tribal leadership roles and possessing extensive experiences in the Karuk's Department of Natural Resources and the Washoe's Department of Culture and Language Resources, respectively, were conducted over the phone and recorded using the TapeACall iOS application. The transcription was performed using the built-in feature within the same software. Subsequent coding for emergent themes was performed manually.

Secondary Analysis

The selection of additional sixteen indigenous groups for analysis was based on random sampling from a list of the federally recognized tribes in California. Further refinement depended on data and published research availability as pertains to the selected tribes' ecocutural programs. I carried out the literature search in Google Scholar and Web of Science research databases using key terms such as "environmental restoration," "resource management," and "environmental planning." Obtained literature consisted of climate change adaptation plans, resource management agendas, case studies of individual tribes and ecocultural programs, governmental agency reports and notices. All results were compiled into a summary table.

RESULTS

Environmental Concerns on Tribal Lands

a. Environmental Health

My findings reveal that many American Indian communities in California suffer from a lack of access to healthy water and soils. The interview responses indicated a high concern for the basic physiological safety of the tribal members due to various instances of historical contamination and the presence of ongoing pollution sources (*personal communication March 31, 2020, personal communication April 14, 2020*).

The community of the Agua Caliente Band of Cahuilla Indians traditionally relies on untainted groundwater (Cole 2015). Beneath the Tribe's reservation lies an aquifer with an estimated capacity of 39 million acre-feet of water (*Engineer's Report on Coachella Valley Water District Water Supply and Replenishment Assessment* 2016). From time immemorial, the Cahuilla utilized the Coachella Valley Aquifer to meet their drinking, plant cultivation, and ceremonial needs (Bean 1974). Before the intensification of land development, sustainable use of the water by indigenous peoples and natural replenishment through seasonal precipitation were sufficient to maintain the resource's purity and availability (Cole 2015). Today, over 400,000 people and 7,000 businesses rely on the Aquifer that can no longer replenish itself without imports ("The State of the Coachella Valley Aquifer" 2015). To meet the need, the Desert Water Agency (DWA) and the Coachella Valley Water District (CVWD) bridge the gap with water sourced from the Colorado River. The substitute water has higher levels of contaminants such as mercury, selenium, polychlorinated biphenyls, current and discontinued pesticides as well as pharmaceutical residue (Hinck et al. 2007, Roberson 2008).

Other environmental impacts to the Coachella Valley include some of the lowest air quality nationwide (Parrish et al. 2011). The Cabazon Band of Mission Indians is situated in proximity to a highly polluted Salton Sea that dries up seasonally and releases toxic, airborne particles (Ward 2015, Frie et al. 2017). Major thoroughfares, Highway 86 and Interstate 10, comprise the city's eastern boundary and exacerbate the pollution. Volatile organic compounds and nitrogen oxides are accompanied by the ground level ozone concentrations that consistently exceed federal maximum standard of 70 ppb and hover around 100 ppb in recent years ("National Ambient Air Quality Standards for Ozone" 2015, Barcikowski et al. 2016).

I found that members of the Washoe Tribe of Nevada and California also suffered from contamination of their historical lands and waters. An abandoned nineteenth century open-pit sulfur mining enterprise lies 24 miles southeast of the Washoe's center of the universe, Lake Tahoe (Makley 2018). Nearby Carson Valley's creeks hold spiritual, economic and cultural significance

to the Washoe People (Makley 2018). The open-pit mining technology employed by the Anaconda Copper Mining Company in the mid-twentieth century resulted in a removal of over half a million tons of sulfur for copper processing (Janin and Carlson 2019). The industrial operations ceased in 1963 leaving a sulfuric acid drainage seeping into the Leviathan Creek that connects to the Carson River (Janin and Carlson 2019). The web of interconnected creeks, the River and the Lake traditionally allowed the Washoe to meet its subsistence needs with the cutthroat trout, nuts, berries, medicinal plants and fresh water (Makley 2018). Today, the watershed is contaminated with heavy metals such as arsenic, aluminum, and chromium rendering the surface waters and affected species unsafe for human consumption, and in some instances carcinogenic (Harper 2005).

b. Cultural Species Loss

My data suggest that California's indigenous groups' ecocultural resources have experienced a significant decline in recent decades.

The Karuk Tribe's spiritual and economic wellbeing are historically fostered by the Klamath River, its purity and year-round abundance (Norgaard 2019). The non-human community counterparts inhabiting the Klamath included lamprey, steelhead, Coho, Sockeye, Humpback, and Chinook salmon (Norgaard 2019). At the turn of the twentieth century, the Euro-American settlers engaged in consistent overfishing, capturing entire salmon runs (Hormel and Norgaard 2009). Beginning in 1918, the species decline was compounded by the construction of six hydroelectric dams on the Klamath, blocking access to the Chinook's spawning grounds (Hormel and Norgaard 2009). The dams had cascading ecological effects, promoting the growth of the toxic algae *Microcystis aeruginosa* (Norgaard 2019). This phototropic bacterium thrives in stagnant waters and produces a microcystin toxin adversely affecting human and animal health (Jacoby et al. 2000). In addition, 2002 marked the Klamath River's die-off event of nearly 70,000 adult Chinook salmon due to water diversion, the largest loss of fish to disease in the national history (Hormel and Norgaard 2009).

The Washoe People experienced similar culturally and environmentally deleterious effects as a result of anthropogenic habitat alteration. Historically, Tribal members engaged in seasonal harvesting activities that included foraging for traditional plants at the meadows of Meeks Bay

(Makley 2018). Meeks Meadow served as a fishing and hunting ground as well as a source of basketry materials like bracken fern (*Pteridium aquilinum*) and a range of medicinal plants (Makley 2018). Secluded area for most of the early colonization history of the United States, by early 1900s the Meadow began to be impacted by lumber production and subsequently by development, ranching and tourism (Makley 2018). The Washoe were dispossessed from their summer camping grounds for most of the twentieth century (Makley 2018). Established fire suppression policy led to the conifer proliferation and disappearance of native vegetation from the Meadow (Makley 2018). The Tribal representative articulated the significance of this loss, saying "the conversation often centers on water clarity as the prime issue with Lake Tahoe, but we neglect the importance of the surrounding streams, tributaries and meadows" (*personal communication March 31, 2020*).

c. Climate Change

My findings indicate there is a broad recognition that climate change will be experienced on a shorter timescale and with a greater gravity by California's indigenous peoples. The effects include an increase in flood events, more severe and prolonged fire season as well as the decline of cultural species and traditional foods as ecological stressors are amplified (Gordalis and Suagee 2008).

In Northern California, a rise in water temperatures and streamflow fluctuations are anticipated to reduce salmon populations, a key ecocultural resource for the Karuk as well as the surrounding communities of Yurok and Hupa (*Karuk Climate Adaptation Plan* 2019). Other predicted impacts include an expansion of pathogens such as *Phytophthora ramorum,* responsible for the sudden oak death, fire occurrence at higher elevations, change in precipitation schedule and quantity and a diminishing snowpack (*Karuk Climate Adaptation Plan* 2019). As the Karuk Tribe projects a 52.5 increase in days with temperatures above 86° F by the end of the century, the community situated in a heavily forested, old-growth habitat reports a particular concern with the increase in wildfire duration and severity (*Karuk Climate Adaptation Plan* 2019).

Tribal Ecocultural and Environmental Initiatives

The scope of indigenous ecocultural initiatives in California and key impacts on their implementation are summarized in Table 1and reflect a range of the place-specific, environmental and cultural concerns the communities face.

a. Fostering Subsistence Traditions

Most of the tribes surveyed aim to support and promote subsistence harvesting as a practice that unites the land, the community, its spiritual underpinnings and satisfies a basic human need. Cultural foods vary with topography and climate, and each tribe draws on its unique heritage and elders' wisdom in developing a strategy for sustainable cultural food provisioning.

i. Sustainable Land Management

For the Karuk, salmon decline had deleterious health and cultural effects, and in 2007 the Tribe initiated a campaign to decommission four Klamath River dams - Copco No. 1, Copco No. 2, J.C. Boyle and the Iron Gate – in order to restore salmon's spawning habitat and the upper basin fishery (Hormel and Norgaard 2009, Sowerwine et al. 2019). The campaign brought new allies – fishermen, environmentalists, Yurok, Klamath and Hoopa tribes – and in 2016 culminated in a desired commitment from the stakeholders (Gosnell 2010a). The Klamath's environmental restoration plan is currently in its final design stages. Subsequent phases comprise site preparation, dam demolition, ecological restoration, implementation of adaptive management and monitoring ("Definite Plan for the Lower Klamath Project" 2018). This unprecedented initiative will become the largest, $450 million dam demolition in the United States ("Definite Plan for the Lower Klamath Project" 2018). The key facilitating influences included significant community involvement and outreach, diverse professional and governmental allies, state ballot funding and a global media exposure (Gosnell 2010a).

The abundance and quality of the Karuk's native food staple, tanoak acorns (*Notholithocarpus densiflorus*), along with a range of other traditional plant foods such as red-flowering currants (*Ribes sanguineum*), red huckleberries (*Vaccinium parvifolium*), California huckleberries (*Vaccinium ovatum*) and thimbleberries (*Rubus parviflorus*) depend on frequent, controlled burns (Sowerwine et al. 2019). As an antidote to the decades of the government's fire

suppression policy, forest ecosystem degradation and the criminalization of cultural burns, the Tribe directs the Somes Bar Integrated Fire Management Project within the Western Klamath Restoration Partnership (WKRP) (*Somes Bar Integrated Fire Management Project Final Environmental Assessment* 2018). The partnership among diverse stakeholders including the U.S. Forest Service, California Department of Forestry and Fire Protection and the Nature Conservancy was formed in 2007 in order to address aquatic habitat restoration but expanded to include forest management (Harling and Tripp 2014). The WKRP's approach to environmental stewardship seeks to: (1) accelerate the development of fire adapted communities; and (2) integrate food security, food sovereignty, and forest food and fiber resources into management actions (Harling and Tripp 2014).

The Somes Bar Project of the WKRP unites government agency representatives, scientists and Tribal members in an effort to restore natural fire regimes, learn by doing and foster community partnerships (*Somes Bar Integrated Fire Management Project Final Environmental Assessment* 2018). Important positive impacts on the WKRP's formation were multi-agency, academic and community partnerships (Harling and Tripp 2014).

The Mayala Wata Restoration Project at Meeks Meadow spearheaded by the Washoe Tribe was borne out of similar goals and a collaborative mindset. Identifying the three-hundred-acre site as culturally significant and important for subsistence purposes, the Washoe Tribe pushed for meadow restoration and joined forces with the U.S. Forest Service (Adelzadeh 2006, *personal communication March 31, 2020*). The co-management agreement between the Lake Tahoe Basin Management Unit and the Washoe grants the Tribe a thirty-year special use permit to restore fire to the landscape, propagate and harvest native plants as well as to foster traditional ways of life among the community members *(Adelzadeh 2006, personal communication March 31, 2020*).
In the past decade, natural fire disturbances affected a significant part of the Washoe's allotment lands (*personal communication March 31, 2020*). At the initiative of the community members and the Tribal Environmental Department, the cleared-out grounds were planted with the ponderosa pine (*Pinus ponderosa*) seedlings (*personal communication March 31, 2020*). The community-centered approach is also evident in the Washoe's most recent cultural subsistence initiative. Opening of a community garden, a seed bank and a plant nursery allows the Tribe to regenerate native foods and medicines, conduct educational events and revive ecological knowledge (*personal communication March 31, 2020*).

ii. Climate Change Resilience

I found that the tribes are very aware of the localized climate change dangers. More populous and prosperous communities have developed vulnerability assessments, climate adaptation and landscape resilience plans. These initiatives rely on academic and specialist collaborators, community support and governmental grant funding. Some examples are:

Karuk Tribe's Climate Adaptation Plan

- The plan published in 2019 includes sections on habitat and species-specific adaptations as well as food security. The proposed actions vary with the Karuk's cultural management zones that are constructed in reference to the "cultural keystone species" Tanoak (*Notholithocarpus densiflorus*) and Chinquapin (*Castanea pumila*) and smoke formation. Climate stressors, present management methods, vulnerabilities and suggested adaptations are provided for each zone. The approach incorporates Western science insights and TEK, targeting species of high cultural significance. The "living document" seeks to elevate Karuk's traditional management techniques in order to increase resilience to climate change (*Karuk Climate Adaptation Plan* 2019).

Susanville Indian Rancheria's Integrated Resource Management Plan (IRMP)

- The IRMP takes a comprehensive approach to environmental management and includes provisions for increasing resilience of cultural ecological resources affected by multiple stressors, including climate change. The Tribe relies on native knowledge to moderate impacts from changes in vegetation, species distribution, and other ecosystem disruptions. Cultural resource surveys spanning nearly the entirety of the Susanville Indian Rancheria provided information on locations of vulnerable ecological cultural sites that will be protected. Additional habitats that gained special protective status due to their "traditional importance as resources for the survival of Tribal ancestors" include riparian, black oak (*Quercus kelloggii),* and bitterbrush (*Purshia tridentata*) ("Integrated Resource Management Plan" 2014).

Yurok Tribe's Climate Change Adaptation Plan for Water & Aquatic Resources

- The Yurok Tribe takes a detailed, species-specific approach to increasing resilience of the cultural aquatic species and creation of robust indigenous food systems. Some of the key species are Ney-Puy/ salmon (*Oncorhynchus kisutch*), Chkwohl / steelhead (*Oncorhynchus mykiss*), Kah-Kah / North American green sturgeon (*Acipenser medirostris*), and Key'-Ween / pacific lamprey (*Entosphenus tridentatus*). The adaptation strategies reflect current disturbances such as logging, dams, overharvesting, hatcheries and pesticide use and follow thematic action categories. Ecosystem restoration promises to provide access to alternative food sources and increase community and academic partner participation in further research. Legal remedies encompass variable harvesting policies, better enforcement of a pesticide ban, and expansion of access to new cultural food locations by Tribal members with sea level rise ("Yurok Tribe Climate Change Adaptation Plan for Water & Aquatic Resources 2014-2018" 2014).

b. Conservation

Most of the indigenous environmental programming reviewed either explicitly or implicitly incorporates a conservation component. A number of tribes has been involved in initiatives that have an unambiguous focus on restoration ecology and conservation that may or may not entail added benefits in the form of improved ecocultural resource abundance, environmental health and others. These programs are primarily motivated by a general understanding that environmental conservation is an imperative.

Washoe's ancestral lands are home to a ground-dwelling greater sage grouse (*Centrocercus urophasianus*) (*personal communication March 31, 2020*). As the species entered precipitous decline and were severely impacted by wildfire, invasive grasses and the encroachment of the pinyon-juniper onto sagebrush areas, the bird was petitioned to be protected under the Endangered Species Act (Duvall et al. 2017). As an alternative to federal involvement and broad restrictions on development and local control, a group of stakeholders including the Washoe Tribe convened together to incorporate TEK and develop an alternative conservation plan for the greater sage

grouse habitat ("Bi-State Action Plan" 2012). The resultant Bi-State Action Plan secured nearly $50 million in funding and includes over eighty action items aimed at pinyon pine removal, species monitoring, riparian area restoration and invasive grasses eradication ("Bi-State Action Plan" 2012).

My research revealed that an alternative to traditional indigenous conservation programs exists in a form of a multi-tribal partnership with a non-profit status:

<u>InterTribal Sinkyone Wilderness Council</u>

- The first national non-profit conservation organization formed by indigenous people and for indigenous land conservation was organized by several Californian tribes in Lake and Mendocino counties in 1986. Established in opposition to the ongoing logging at the ancient indigenous territories, the Council collaborated with many partners including the California State Coastal Conservancy and the Pacific Forest Trust in order to raise funds to purchase 3,845 acres of the Sinkyone rainforest and establish the InterTribal Sinkyone Wilderness. The area represents a unique conservation easement that allows for many ongoing preservation activities like watershed restoration, habitat improvement and native species revitalization. The current member tribes include Cahto Tribe of Laytonville Rancheria, Coyote Valley Band of Pomo Indians, Hopland Band of Pomo Indians, Pinoleville Pomo Nation, Potter Valley Tribe, Redwood Valley Little River Band of Pomo Indians, Robinson Rancheria of Pomo Indians, Round Valley Indian Tribes, Scotts Valley Band of Pomo Indians, and Sherwood Valley Rancheria of Pomo Indians (Bowcuttl 1999, Middleton 2011b).

c. Green Economic Development

California's Native Americans are actively seeking ways to affect global environmental phenomena like climate change on a local scale. The data show that the primary focus of green economic development such as renewable energy projects on indigenous territories is on the

economic component but the environmental benefits associated with such enterprises are also highly valued.

In the last two decades, several tribes in California sought to reduce their dependency on fossil fuels and turned to renewable energy sources. In 2005, the Agua Caliente Band of Cahuilla Indians utilized the Renewable Portfolio Standard as part of the California's Solar Initiative and funding from the Tribal Energy Program to design a Strategic Energy Plan that combines economic development and sustainability goals (*Final Report to the Department of Energy Renewable Energy and Energy Efficiency* 2018). Subsequently, the Tribe was able to mount a 79.95 kW solar photovoltaic system on carports near the Tribal Education and Family Services offices (*Final Report to the Department of Energy Renewable Energy and Energy Efficiency* 2018). The cost savings over the course of a fifteen-year period are estimated at $500 million (*Report to the Department of Energy Renewable Energy and Energy Efficiency* 2015). The annual emission reductions come in the form of "49 lbs. of nitrogen oxides, 21 lbs. of sulfur dioxide, and over 37 tons of carbon dioxide" (*Report to the Department of Energy Renewable Energy and Energy Efficiency* 2015).

The Ramona Band of Cahuilla Mission Indians' development strategy included complete electrical grid independence, elimination of power lines and expansion of ecotourism (Slock and Begay-Campbell 2010). In 2002, the Tribe received funding through the U.S. Department of Energy's Tribal Energy Program and installed an 80 kW solar photovoltaic, wind and propane generation system that met the needs of the reservation's houses, offices and an ecotourism center ("Tribal DOE Presentation" 2006). Another objective of the project centered on becoming self-supporting and training the Ramona Band's members to perform full technical maintenance of the new generator, power building and photovoltaic modules ("Tribal DOE Presentation" 2006).

The Campo Band of Mission Indians of the Kumeyaay Nation became one of the first tribal adopters and commercial producers of the wind-powered electricity ("Development & Deployment: Kumeyaay Wind II" 2009). The Campo Band was initially approached by the Superior Renewable Energy and offered a lease agreement to develop a 50 MW wind farm on the indigenous lands (National Renewable Energy Laboratory (NREL), Golden, CO. 2009). In 2005, the collaboration came to fruition, and the project dubbed Kumeyaay Wind I began to supply power to nearly 30,000 local homes ("Development & Deployment: Kumeyaay Wind II" 2009). Four years later, the Tribe was interested in an ownership stake at an additional wind facility and

launched the Kumeyaay Wind II program generating 160 MW and preventing almost 58 million annual pounds of carbon dioxide from being released into the atmosphere (Guruswamy 2015). Additional benefits that were crucial to the Campo included the development of the associated infrastructure and long-term employment opportunities for the reservation residents ("Development & Deployment: Kumeyaay Wind II" 2009).

Table 1. Surveyed Tribes' Environmental Concerns, Ecocultural Initiatives and Corresponding Impacts

Represented Native American Communities	Select Environmental Concerns / Agenda	Soultions / Initiatives	Key Impact Factors
Agua Caliente Band of Cahuilla Indians	Coachella Valley aquifer water quantity and quality	lawsuit against Coachella Valley Water District and Desert Water Agency	Tribe's financial state
			support of the U.S. Justice Department
			legal precedent - Supreme Court case Winters v. United States
			interpretation of the tribal groundwater right by a California Court
	poor air quality renewable energy development	Tribal Energy Program	Tribes' cultural values of sustainablity and stewardship
			metropolitan location of the reservation lands
			the City of Palm Springs' focus on sustainability
			California's Renewables Portfolio Standard (RPS)
			land use agreements with Palm Springs, Cathedral City, Rancho Mirage and Riverside County
			economic development opportunity
			prior expereince in project development
			California's property tax exclusion for solar energy systems
			Federal investment tax credit
Cabazon Band of Mission Indians	air quality concerns	installation of air-quality monitoring station	partnership with Twenty-Nine Palms and Torres Martinez tribes
			Clean Air Act
			Community Air Grant
Washoe Tribe of Nevada and California	Carson River watershed contamination	Leviathan Mine Superfund Site	Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
			support of Alpine and Douglas counties, Carson Water Subconservancy District
			lack of adequate tribal consultation by the Environmental Protection Agency
	Meeks Meadow degradation	Mayala Wata Restoration Project	community support
			U.S. Forest service collaboration
	loss of ecocultural knowledge / practices	community garden, seed bank, a plant nursery	community support
	post-fire restoration	ponderosa pine (*Pinus ponderosa*) plantings	community support
	enhancing invasvie weed treatment without herbicides	biological control of weeds with goats	community support
			Beyond Pesticides and Goat Green, LLC collaboaration
	pinyon pine (*Pinus cembroides*) removal to protect sage	Bi-State Action Plan	Endangered Species Act
			unilateral descion-making by the Bureau of Land Management
			U.S. Fish and Wildlife Service, U.S. Forest Service, Nevada Department of Wildlife, California Department of Fish and Game, California State Parks, other agencies and private land owners collaboration
Karuk Tribe	Klamath River fish decline	removal of Copco No. 1, Copco No. 2, J.C. Boyle and the Iron Gate dams	broader tribal community, environmental and fishing organizations support
			The Water Quality, Supply, and Infrastructure Improvement Act of 2014 (California)
			international media exposure
	frequent-fire, old growth forest, ecocultural resource availability	Western Klamath Restoration Partnership (Somes Bar Integrated Fire Management Project)	U.S. Forest service, UC Berkeley/Karuk Tribe Collaborative, US Fish and Wildlife Service, California Department of Forestry and Fire Protection, Environmental Protection Agency, The Nature Conservancy, other agencies and organiations collaboration
	climate change	Karuk Tribe's Climate Adaptation Plan	University of Oregon, United States Forest Service, Mid Klamath Watershed Council, University of California, Klamath Forest Alliance, Salmon River Restoration Council collaboration
			Department of Energy and PG&E Resilient Communities Grant
American Indians of the Susanville Indian Rancheria: Maidu, Washoe,	balance tribal environmental quality with economic development	Susanville Indian Rancheria's Integrated Resource Management Plan	funding from the Bureau of Indian Affairs
			community support
Yurok Tribe	climate change	Yurok Tribe's Climate Change Adaptation Plan for Water & Aquatic Resources	collaboration with the Institute for Tribal Environmental Professionals at Northern Arizona University
			funding from Environmental Protection Agency's Science to Achieve Results Program
			community support
Cahto Tribe of Laytonville Rancheria Coyote Valley Band of Pomo Indians Hopland Band of Pomo Indians Pinoleville Pomo Nation Potter Valley Tribe Redwood Valley Band of Pomo Indians Robinson Rancheria Band of Pomo Indians Round Valley Indian Tribes Scotts Valley Band of Pomo Indians Sherwood Valley Band of Pomo	timber harvesting in the historic indigenous lands in the Sinkyone Forest	InterTribal Sinkyone Wilderness Council	imminent threat of logging
			California State Parks, Save-the-Redwoods League, California Coastal Conservancy, Trust for Public Land, Trees Foundation, Bay Area Friends of Sinkyone collaboration
			funding from the Lannan Foundation
			1985 California Court of Appeals ruling
			favorable social and political climate
			community support and publicity
Ramona Band of Cahuilla Mission Indians	renewable energy development ecotourism development	installation of solar photovoltaic, wind and propane generation system	Domestic Technologies Inc. partnership
			funding from the U.S. Department of Energy and U.S. Department of Housing and Urban Development
			California Department of Mines and Geology, Bureau of Reclamation, USFS, University of California collaboration
			remote location of Tribal lands
Campo Band of Mission Indians of the Kumeyaay Nation	renewable energy development	Kumeyaay Wind I and Kumeyaay Wind II	funding from the U.S. Department of Energy, Office of Indian Energy
			Babcock and Brown, San Diego Gas & Electric Co., Invenergy
			federal tax credit exemption
			economic development opportunity

KEY	
	facilitating factor
	impeding factor

DISCUSSION

The landscape of indigenous environmental restoration and stewardship in California is a rich spectrum of lived experiences, hurdles surmounted and inspiring tales of resilience. My findings revealed that binary characterization of the tribal environmental initiatives in terms of the successful outcome is often not appropriate as they continuously evolve, expand in scope and incorporate new goals. As California's Native Americans rediscover the breadth of their ecocultural practices, the benchmark for environmental renewal shifts (Dhillon 2018). The research insights do not exemplify a picture of neatly demarcated facilitating and impeding forces in tribal ecocultural revitalization. As anticipated, historical circumstances, social, economic and environmental context play a large role in how each community navigates decolonization. However, some important underlying dynamics have emerged and can be broadly characterized into variables in community's financial standing, federal and state law implementation, incidence of a unified vision, effective partnerships and current social trends. The following sections illustrate how each factor interrelates with the specific indigenous context.

Legislation, Marginalization and Funding

Although the federal mandate to protect indigenous groups' rightful access to intact natural resources within ancestral territories has existed since 1830, the safeguards implicitly awarded at the time of reservation establishment are customarily ignored by third parties and have to be reaffirmed through litigation, initiated and funded by the tribe (Sandefur 1989). Such is the case with the Agua Caliente Band of Cahuilla Indians who attempted to exercise leverage over the Coachella Valley Aquifer's modes of replenishment. Since 1996 the group has been repeatedly reaching out to the DWA and the CVWD expressing willingness to problem solve cooperatively (*Agua Caliente Band of Cahuilla Indians v. Coachella Valley Water District* 2017). The tribal interests have been dismissed, and the many letters of concern received no response (*Agua Caliente Band of Cahuilla Indians v. Coachella Valley Water District* 2017). When a century-old Winters doctrine was eventually used to validate the Tribal rights and the federal government stepped in to execute its trust responsibility, it appeared the state agencies' reluctance to engage with the community arose from factors other than doubts about its claim's legitimacy (Lankford 2018).

With the Band's population numbering a few hundreds, the agencies were ideologically opposed to the recognition of the group's power and sovereignty ("My Tribal Area" 2018). Thus, the case represents a true novelty in which indigenous water rights supersede state claims. The consistency of intent and sound legal strategy contributed to the favorable outcome for the Cahuilla, but the key influence was arguably the availability of the financial resources that the group was able to allocate to the litigation. On a state-wide scale, this model is unlikely to become a replicable precedent. According to the U.S Census Bureau, over 15% of American Indians in California live below poverty level ("Poverty Status in the Past 12 Months" 2018). The Agua Caliente reservation's poverty rate is less than half of the state average ("My Tribal Area" 2018).

Financial quandary in the context of existent environmental damage is an indigenous peoples' dilemma outside of a courtroom as well. Although J. Corntassel in his work encourages to "confront funding mentality" and "admit that colonizing governments … are not going to fund … decolonization," marginalized groups with niche interests have very limited avenues of financial backing of the environmental restoration. Attempting to work alongside governmental entities with token obligations to consult and collaborate can be a culturally demeaning experience, yet many California's Native Americans see an instructive opportunity in these instances (*personal communication April 14, 2020*). Not as victims, but as educators, tribal members help guide agency representatives towards a greater mutual respect and understanding in the future. This positive outlook and a pressing need often lead tribes to engage with the federal government on matters of environmental cleanup and restoration. When the sulfuric acid from the orphaned mining operation decimated Washoe's ecocultural resources, the Tribe did exactly that, requesting the EPA's prompt involvement ("Leviathan Mine Natural Resource Damage Assessment Plan" 2003). Initial containment efforts faltered, and the federal CERCLA proved instrumental in securing the necessary funding for environmental remediation ("Leviathan Mine Natural Resource Damage Assessment Plan" 2003). While the story resonated as an ultimate success, the evaluation report issued by the EPA's Office of Inspector General revealed that the Tribe characterized the collaboration as an "arduous process," citing ineffective coordination and stating "it is difficult for the Tribe to support a process which is not responsive to the Tribe's comments and which is not inclusive of the Tribe at critical developmental stages" (*Tribal Superfund Program Needs Clear Direction and Actions to Improve Effectiveness* 2004). The agency assured it fully satisfied the consultation requirements. (*Tribal Superfund Program Needs Clear Direction and Actions to*

Improve Effectiveness 2004). This troubled collaboration under the CERCLA auspices took place in early 2000s, although the inherent flaws of the Act related to tribal input have been well known at least a decade prior when R. A. Du Bey and J. M. Grijalva in "Closing the Circle: Tribal Implementation of the Superfund Program in the Reservation Environment" argued that Congress should compel the EPA to explicitly define the terms of involvement of tribal governments in agency's response plans (Bey and Grijalva 1993). Even the strictest guidelines in this context might be insufficient to facilitate adequate and respectful consultation due to the profound ideological difference where tribal governments are still viewed as a mere stakeholder instead of being understood to "form the basis for a different civic community with a different sense of the public good" (Ranco et al. 2011). The Karuk have been outspoken critics and victims of such delegitimization (*personal communication April 14, 2020*). The tribal members continued practicing prescribed burning on ancestral landscapes, despite their new designation as public lands (*personal communication April 14, 2020*). Maintaining the health of the forest ecosystems with fire is viewed as a moral obligation by the Tribe (*personal communication April 14, 2020*). As sovereign guardians, the People are tasked with the wellbeing of a larger plant and animal community (*personal communication April 14, 2020*). For the U.S. governmental entities, including the California Department of Forestry and Fire Protection, Karuk's behavior constituted a criminal offense (*personal communication April 14, 2020*). Acrimonious relationship between state and federal agencies and the Tribe persisted for many decades, impeding any meaningful co-management of the Six Rivers National Forest and surrounding areas (Oliver 2019). Only recently, when deleterious effects of the fire exclusion became increasingly obvious, Karuk's ecocultural practices have gained limited legitimization (*personal communication April 14, 2020*). Western Klamath Restoration Partnership represents these positive strides. Although the Karuk continue to grapple with the implications of an outdated forest management policy, their perspective offers a revealing, personal take on its implementation, "The policy does not matter, individual bureaucrat does. When our people attain positions of power, unchanged policies can advance Tribal objectives" (*personal communication April 14, 2020*).

Community Support and Partnerships

Perhaps one of the most universally agreed upon positive contributors to the indigenous environmental restoration is community involvement. As the Karuk representative bluntly articulated, "It is the people" (personal communication April 14, 2020). The Karuk Tribe in particular, has experienced profound effects of a formidable force that is the public support of one's environmental objectives. When the Klamath dam license renewal application addressed none of the Tribe's ecological concerns, the Karuk saw an opportunity to remove the four dams blocking Chinook's spawning habitat and reclaim its right to native foods (Hormel and Norgaard 2009). Other interest groups along with neighboring tribes joined in support (Hormel and Norgaard 2009). What followed is an inspirational tale of how an indigenous right in a world designed to negate it can prevail over capitalistic exploits. As fishermen, environmentalists, Yurok, Klamath and Hoopa tribes stepped in to back the dam removal, the community support expanded into partnerships and dozens of Tribal members including youth and families made their story heard at the Scottish Power headquarters in Scotland, UK (Gosnell 2010b). Having garnered a lot of publicity and local attention, the proponents of dam removal presented the issue of Klamath's ecological decline as a cultural genocide and a human rights violation (Hormel and Norgaard 2009). The unified campaign shocked and fascinated, creating a public relations nightmare for the owning corporation (Hormel and Norgaard 2009). As the pressure mounted, the strategy of maximum exposure proved successful and the commitment to dismantle the dams was reached in 2016 ("Definite Plan for the Lower Klamath Project" 2018).

On a smaller scale and without global media exposure community enthusiasm still remains an important factor in the success of environmental restoration (*personal communication March 31, 2020*). Although the Washoe attest that the socioeconomic standing of many of the Tribal members - over 13% of the population live in poverty - makes it challenging for members to attend to matters other than most pressing needs, there is sufficient support and commitment to the Tribe's revitalization of the land and culture ("My Tribal Area" 2018, *personal communication March 31, 2020*). The Meeks Meadow restoration project serves as an example as it was in large part born out of the community's impassioned interest in reclaiming ancestral medicinal and sustenance traditions (*personal communication March 31, 2020*). There are Washoe elders who retain childhood memories of having a "relationship with the place" (*personal communication March 31, 2020*). The reunion was described as a momentous, emotional event for the community that is eager to provide cultural education to its youth as part of the Mayala Wata Restoration Project

(*personal communication March 31, 2020*). Unfortunately, the future possibilities of this endeavor still rest on uncertain funding ("Notice of Intent to Adopt a Negative Declaration and Opportunity to Provide Comments on the Proposed Mayala Wata Restoration Project at Meeks Meadow" 2019). The Tribe cannot afford to sustain the program independently and will be reliant on outside contributions ("Notice of Intent to Adopt a Negative Declaration and Opportunity to Provide Comments on the Proposed Mayala Wata Restoration Project at Meeks Meadow" 2019). As described above, these contributions commonly originate from state and federal sources. Their grant funding intended for Native American revitalization such as the Mayala Wata creates an environment of inter-tribal competition with an implicit outcome of Meeks Meadow's funding at the expense of another community's ecocultural project, or vice versa (Brockman 1992).

As a community on a coarser scale begins to encompass non-tribal neighbors and businesses, the indigenous revitalization efforts become very susceptible to the opinions and prejudices of the aforementioned neighbors. This can be often the case for tribes in Southern California where population density compacts tribal lands and non-indigenous public. The Agua Caliente Band of Cahuilla Indians experienced the effects firsthand when the dispute over water rights divided the community. In an interview to the press, the DWA's board president insisted it was the agency's obligation to "maintain the ownership of the water for everyone" (Ian 2017). Some of the Palm Springs residents echoed the water agencies' sentiment resenting the Tribe for the perceived unfair attempt to enrich itself (Bass 2018). Similarly, the Kumeyaay Wind II program promised the Campo Kumeyaay Nation an opportunity to expand its green energy production and a chance at economic prosperity (Connolly 2008). The ambitions ran into the reservation residents' and broader community's opposition (Raftery 2018). The wind turbines were claimed to be unsightly, cause a depreciation in property values and pose health risks (Raftery 2018). Although the Kumeyaay wind power plan concluded in successful installation, the subsequent projects on the Campo Reservation faced a well-rehearsed, increased resistance, and in some cases, subsequently culminated in plan termination ("Notice of Cancellation of the Environmental Impact Statement for the Proposed Shu'luuk Wind Project on the Campo Indian Reservation, San Diego County, CA" 2014).

Partnerships with academic institutions, individual researchers and state agencies represent an important element in tribal ecocultural revitalization, and especially in climate change adaptation as it requires input from a diverse group of specialists. The Yurok Tribe, for instance,

drew on the scientific and policy support of the Institute for Tribal Environmental Professionals at Northern Arizona University in order to design its Climate Change Adaptation Plan for Water & Aquatic Resources ("Yurok Tribe Climate Change Adaptation Plan for Water & Aquatic Resources 2014-2018" 2014). Examples of other initiatives are also abound - the Susanville Indian Rancheria's Integrated Resource Management Plan was completed with assistance by an outside environmental specialist, and the Karuk Tribe routinely works with researchers from the University of Oregon, UC Berkeley and the United States Forest Service on a diverse set of environmental priorities ("Integrated Resource Management Plan" 2014, personal communication April 14, 2020). The tribes generally expressed a positive sentiment about the collaborations and appreciated diverse viewpoints and skillsets (*personal communication March 31, 2020, personal communication April 14, 2020*). It is important to note, however, that for a partnership to be fruitful and result in accrued benefits to the tribe, the terms of collaboration have to be explicitly defined by the Native Americans themselves and acknowledged by all involved parties. Differences between TEK and Western scientific view, history of cultural appropriation, misrepresentation and careless disclosure of indigenous traditions, all created an atmosphere of distrust that necessitated implementation of protective measures by sovereign native governments (*personal communication March 31, 2020, personal communication April 14, 2020*). This issue of distortion by outside partners was pertinently discussed by L. E. Lassiter referencing a Native American elder who confided he was always willing to share knowledge but does not consent to the use of that knowledge in unendorsed ways (2001).

Although tribal viewpoints and priorities often diverge, some of the most successful environmental partnerships have evolved from a unified vision as well as a collective experience of trauma. The InterTribal Sinkyone Wilderness Council (ISWC) has such beginnings. Seven California tribes, all descendants of the dispossessed Sinkyone people, in fierce opposition to the timber industry and state leniency, formed a unique nonprofit with a sole purpose of purchasing ancestral lands at risk of further logging and creating a protected wilderness area (Middleton 2011b). Many legal and financial obstacles had to be overcome with the help of private foundations and allied environmental organizations (Bowcuttl 1999). The vision and motivations of the Council proved to be compelling, and in 1997, the first of its kind, native wilderness area with a conservation easement was established in the Sinkyone Forest (Bowcuttl 1999). Clearly, a complex legal, social and financial arrangement behind the ISWC required more inputs than a

mere productive partnership. In fact, legal factors, shift in sociocultural climate and circumstances played a big role in the park's creation. The finding of the Georgia-Pacific Corporation to be in violation of the state's Environmental Quality Act by the California's Court of Appeals stalled logging prospects and opened a window of opportunity for the tribes (Corbett 1995, Middleton 2011b). However, they had no financing, and the parcel's ownership was soon transferred to a group of conservation organizations ("Protecting Ancestral Tribal Lands and Waters" 2018). It is the subsequent actions of the ISWC that really enabled the eventual creation of the Sinkyone wilderness. The tribes formed a close-knit, multi-year relationship with the California State Coastal Conservancy that retained jurisdiction over the land (Corbett 1995). The Sinkyone people stayed true to their vision, maintained the Council's integrity and successfully navigated perils of complex negotiations (Corbett 1995, Middleton 2011b). The partnership was described as inspirational and secured overwhelming public and fundraising support (Corbett 1995). The unity of interests and a shared history of brutal colonization created a working model for future ecocultural initiatives and a robust inter-tribal partnership that subsequently expanded its ranks and continues to perform important environmental work in the ancient forest (Middleton 2011b). Today, the lands are undergoing environmental restoration, provide educational and research opportunities as well as a native plant garden accessible to the public ("The InterTribal Sinkyone Wilderness Council" 2020). In the instructive words of a Native American professor, "Indians need to help other Indians … trying to do preservation" (Middleton 2011b).

Social Climate

In a thoughtful and reflective conversation, a Karuk member told me about how his Tribe works with "all the ologists" (personal communication April 14, 2020). After a moment, it dawned on me that I am, as an inspiring "ologist," have an equally slanted and abstracted idea of the processes that govern Karuk's decolonization. My obliviousness albeit unintentional is the reality that many tribal members confront whenever they make their case for ecocultural survival to the world. My results show that for indigenous peoples, every step forward is laced with a prerequisite to explain and justify. And so they do, broadcasting to the world that worldviews come in varieties. Although the social evolution has reached the point when the Karuk feel confident to expand the scope of the Western Klamath Restoration Partnership and advocate for reintroduction of fire to their

ancestral forests, and the Cabazon Band is lauded for initiating state-funded air quality monitoring in the area, the euro-American society largely continues to live according to the principle aptly described by a common aphorism - to the privileged, equality feels like oppression (Johnson 2019). At the times of economic abundance, many are willing to empathize with the struggles of Native American self-determination through environmental stewardship, especially when the trope of ecological Indian rings true to the public. As water scarcity and groundwater rights dispute in California intensify, attitudes towards indigenous dominion may undergo a corresponding shift. When tribal stewardship signifies logging industry losses or when the Washoe are increasingly protective of their ecocultural heritage in the face of a Bay Area tourist swarm, not everyone is enthusiastically supportive (personal communication March 31, 2020). If non-conforming to the colonized archetypes, it is the casinos and the supposed greed that become grounds for antipathy.

Despite the hindrances and a difficult road ahead towards true tribal sovereignty, positive steps have been taken. In recent years, the acknowledgement of the special status and the unique vulnerability of native peoples has made its way into the declarations by international organizations such as the Intergovernmental Panel on Climate Change (Norton-Smith et al. 2016). This nod has proven to be an important influence on Native American climate change preparations as individual tribes have been relieved of the responsibility to assure of the matter's urgency, and most indigenous adaptation plans reviewed reference the international community's forewarnings.

Limitations

My study design incorporated only a small subset of the 109 federally recognized Native American tribes in California. This limited representation restricts the broad applicability of the results obtained and attempts to synthesize select few experiences of the communities described. Moreover, the state tribal population pool that excludes all indigenous groups without a recognized status cannot claim to be fully illustrative of the underlying factors that govern Native American ecocultural revitalization. This omission does not devalue the groups' existence or experiences but merely signifies practical challenges of conducting research with limited access to data and indigenous narratives.

The data collection was carried out primarily during a state-wide quarantine due to the COVID-19 pandemic. The inability to have direct, face-to-face communication with tribal

representatives as well as the broad reliance on published case studies, court documentation and resource management plans limit the scope of my reporting and introduce a third-party bias that has the potential to distort indigenous histories. It is worth reiterating that many other unacknowledged stories of ecocultural progress, struggles and triumph warrant being told by California's Native Americans themselves. Until such equitable inclusivity is achieved, no complete picture of decolonization within environmental context can emerge.

Future Directions

The landscape of indigenous ecocultural revitalization is exceedingly multifaceted, and much remains to be explored about this complexity. My results raise additional important questions about the legal, socioeconomic, and environmental underpinnings affecting a community's decolonization. For instance, what specific ecocultural impacts do the Washoe experience as a result of close interaction with tourism and ranching industry in their indigenous lands? How do these impacts compare to those of logging in the Humboldt County? Pertaining to past partnerships, it will be important to observe how the established relationships among the Karuk, environmental and fishing organizations will develop after the dam removal is complete. In a climate change context, as wildfires continue to intensify, will TEK including cultural burning become an important and accepted adaptation component nation-wide? Since my research encompassed only a small region, further studies can be conducted in other parts of the U.S with different political inclinations, climate change stressors and economic drivers. In addition to qualitative research, a lot can be learned from employing quantitative methods and analyzing, for instance, the wealth aspect of Native American tribes and whether it bears any correlation to the tribes' ability to procure outside funding for its ecocultural initiatives.

Broader Implications

The difference in Western ideology and indigenous viewpoint is manifested in the tribes' profound sense of obligation towards their non-human relatives and the unwavering commitment to stewardship. Yet spiritual connection to one's natural environment is not an exclusive motivator. Environmental restoration and stewardship do not simply represent an important decolonization

component for Native Americans, they form the foundation for all other processes facilitating greater sovereignty (Dhillon 2018). The economies, social relations, culture and food security, all are interdependent and affected by the environmental state of tribal lands. Thus, no support of tribal development – economic, cultural or social, can commence without the appropriate attention to environmental restoration.

Factors that govern indigenous ecological renewal can only be generalized on the coarsest of scales as no community walks the precise path of another. While partnerships with environmentally minded allies and government officials lead to positive outcomes in some circumstances, frustration and dismissiveness can accompany many other working relationships (*personal communication March 31, 2020, personal communication April 14, 2020*). Likewise, proximity to urban centers and a reliable revenue stream generate benefits to native communities, yet both aspects come at a price of complicated neighbor relations (Cole 2015). Context matters but does not negate some simple truths that the indigenous groups themselves have long known to be true – strong native community support, TEK revitalization and an extended time horizon in any environmental planning – culminate in effective acts of resistance. Decolonization might not follow a linear trajectory, but these dynamics hasten the process.

The state of California encompassing a very diverse set of ecological landscapes, native people and cultures, does not leave an unblemished legacy of equitable tribal transactions and fair relationships. Far from it, state animosity towards tribal autonomy is a historical phenomenon. However, it would be fair to consider the California model and explore its lessons to help identify effective decolonization strategies. Other states, arguably further behind in social development and environmental justice facilitation, might benefit from introspection and smooth their own path forward to the decolonized indigenous future.

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