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Fire Back: Rematriating Indigenous Cultural Fire and Sovereignty

Melinda M. Adams, Natasha Caverley, Theresa Gregor, Kelsey Leonard, Emily Burgueno, Amy Cardinal Christianson, Michela Carrière, Solomon Carrière, Renée Carrière, Madeline Courtorielle, Paul Courtoreille, Marlené Dusek, and Dancy Panther Dixon

Glossary

Cultural fire sovereignty. Fire practices, governance, safety, health, and adaptation led and informed by Indigenous peoples, including Indigenous scholars, practitioners, and allied researchers, uniting as partners and supporters. The execution of fire practices informed by Indigenous traditional ecological knowledge (ITEK) achieves sovereignty as a nation-state apparatus but more closely as sacred law and governance and as communal democracy in fulfilling our cultural responsibilities codified in our storytelling and intergenerational teachings.

Cultural safety. Specific to Indigenous fire practices, cultural safety is trauma-informed and can only be defined and assessed by Indigenous individuals, their families and communities. Cultural safety may be achieved physically, socially, emotionally, and spiritually when individuals are safe (or safer) and respected. Safety also includes entities fostering spaces in which Indigenous cultural practices are seen, heard, included, and respected. Relationality is built from cultural safety in creating equity in the use of Indigenous-led fire practices: facilitating the exercise of inherent rights by Indigenous peoples, families, and communities in this current cultural fire resurgence, where Indigenous culture is acknowledged, appreciated, and incorporated into the wildfire space.[1]

Fire Back. Movement focused on the reclamation and rematriation of Indigenous fire knowledges that include not only rights to steward with fire but also restores to

practitioners their inherent relationships and responsibilities to fire. Fire Back centers Indigenous epistemologies as a scientific and sovereign foundation for advancing Indigenous fire research and wildfire mitigation efforts done with, by, and for Indigenous peoples.

Indigenous fire governance. Indigenous-led emergency management, disaster planning, and infrastructure development for safe evacuations, as well as a process to address systemic barriers to Indigenous fire decision-making. Indigenous fire governance ensures Indigenous peoples have authority in decision-making concerning how to provide resources and enact protocols, and that Indigenous communities have the tools and authority to manage fire that include Indigenous cultural practices and territorial protections.

Rematriation. Specific to Fire Back, *rematriation* means the return, revivification, and restoration of our responsibilities to and relationalities with fire as our relative, while striving to rebalance Indigenous leadership. Leadership, which includes both women and men, is integral in reflecting cultural practices that are holistic and threaded with traditional ways and values, and that step away from colonial conceptions of imposed gender and societal roles.

Sovereign burns. Indigenous-led cultural burns and fire stewardship that center priorities aligned with tribal laws, protocols, and traditions rather than nation-state regulations. Recognizing colonial bureaucratic barriers that have systematically eliminated cultural fire and continue to dehumanize cultural fire experts, sovereign burns uphold fire governance through enacted responsibilities of healthy fire, healthy people, and a healthy planet.[2]

Grounding Ourselves

As Indigenous peoples and non-Indigenous allies, our team is inspired by one another in terms of the gifts and strengths that we individually and collectively bring to our scholarship. Our writing circle is composed of Indigenous and non-Indigenous fire practitioners and scholars from Canada and the United States. We are committed to sharing lessons and stories about fire in relation to land, water, people, place, and identity, and to support rematriating Indigenous fire and sovereignty—the Fire Back movement.

Matriarchs and Fire

Our article supports the rebalancing of systems and structures across Indigenous lands, where the knowledge, skills, and abilities across these communities are honored in Indigenous fire stewardship and wildfire management. Actively listening to and sharing stories from inspiring Indigenous matriarchs is a valued dimension to fire rematriation: recognizing how Indigenous matriarchies play a pivotal role in fire practices, providing the linkage between the people, earth, and the rebirth of lands and waters after fire. Story-sharing is rich in themes, imagery, and knowledge that

can aid in deconstructing and reconstructing ways of understanding rematriation of Indigenous cultural fire and sovereignty.

As a writing team, we are fortunate to have the following Indigenous matriarchs share their knowledge in this article: Emily Burgueno (Kumeyaay, United States); Michela Carrière (Cree-Métis, Saskatchewan, Canada); Amy Cardinal Christianson (Métis, Alberta, Canada); Madeline Courtorielle (Métis, Alberta, Canada); Marlené Dusek (Payómkawichum-Kumeyaay, United States).

For Emily Burgueno, Amy Cardinal Christianson, and Michela Carrière, advocacy and application of cultural fire reflect a powerful blend of environmental renewal, cultural preservation, and social justice. Their respective advocacy work reinforces fire as both a physical tool and a cultural, relational practice that holds potential for healing land, community, and spirit. Through their efforts, they are not only revitalizing Indigenous fire practices but also pushing for a future in which Indigenous traditional ecological knowledge (ITEK) is valued in mainstream environmental management and fire governance in Canada and the United States.

For Marlené Dusek and Madeline Courtorielle, their conversations on cultural fire and rematriation explore cultural safety and the spiritual, communal, and ecological roles of fire in Indigenous knowledge systems, highlighting the significance beyond mere wildfire suppression and land management.

Introduction

The role of fire suppression is increasingly being recognized with the onset of extreme wildfires and the effects of climate change.[3] Since time immemorial, many Indigenous nations across the world have been applying "good fire" to the landscape for ecosystem and cultural benefits.[4] Several of us are authors in the forthcoming anthology, *Landkeeping: Restoring Indigenous Fire Stewardship and Ecological Partnerships* (edited by Jared Aldern and Theresa Gregor), which examines the impacts of climate change in North America, particularly catastrophic wildfires and environmental management, by drawing on diverse disciplines including ecology, natural resource management, forestry, ethnobotany, and Indigenous studies. *Landkeeping* presents a collection of Indigenous voices that highlight the efficacy, necessity, and generative role of Indigenous fire practices in sustaining ecological and social systems across the United States and Canada. Indigenous peoples are now being called on to reclaim their ancestral fire knowledge to mitigate the effects of wildfires in fire-prone landscapes, particularly in the United States and Canada. However, as the summers of 2017, 2018, 2019, 2021, 2023, and most recently 2024 and 2025 have shown, wildfire effects are not solely an issue in one specific geographic region; rather, the harmful effects of blazing wildfires and smoke affect many communities globally.

To answer the call to increase fire stewardship, we contribute our fire back and rematriation framework to enhance fire research that is done with, by, and for Indigenous communities. We recognize the incongruities present in the lack of representation of Indigenous peoples in fire science when measured against the prominent role of matriarchs in Indigenous decision-making and fire management. Further, this

article redefines the role of "expert" in fire science and policy by sharing Indigenous fire knowledge and lifting the voices of Indigenous peoples, especially of Indigenous matriarchal leaders in wildfire, prescribed fire, cultural fire, and ceremonial fire in their respective communities. We intentionally introduce our rematriating fire framework to recognize and amplify the role of Indigenous women in the Land Back, Water Back, and, as this article presents, Fire Back movements.[5,6]

Fire Back

In our work, we emphasize that cultural fire is a relational component of the Land Back, Water Back, and Fire Back movements campaigned by Indigenous-led grassroots organizations. For example, NDN Collective works toward reclaiming Indigenous power through organizing, activism, philanthropy, grant-making, capacity-building, and narrative change, creating sustainable solutions on Indigenous terms.[7] The Yellowhead Institute, an Indigenous-led research and education center based at Toronto Metropolitan University offers the "Red Paper" *Land Back*, a report on the reclaiming of Indigenous jurisdiction.[8] The Pueblo Action Alliance is a community-driven grassroots organization that protects cultural sustainability and community by addressing environmental and social impacts in Indigenous communities. The Pueblo Action Alliance states we cannot have land back without water back, and an integral part of return is rematriation of Indigenous water- and land-management practices alongside resurgence of Indigenous identity.[9] The term *Fire Back* stems from the California Indigenous-led grassroots organization Save California Salmon (CalSalmon) that supports the water protection work of local communities and advocates for effective water policy change.[10] CalSalmon was organized to share Indigenous-centered points that include clean water, comanagement strategies, and the return of land and fire practices into Executive Order N-82-20, California's commitment to the conservation of 30 percent of its lands and coastal waters by 2030. The Fire Back movement is also helmed by Indigenous relatives in what is known as Canada and is a focused message in the *Good Fire* podcast. Led by coauthor Amy Cardinal Christianson, the podcast explores the concept of fire as a tool for ecological health and cultural empowerment by Indigenous peoples globally (see fig. 1).[11] We offer *Fire Back* as a framework to uphold reclamation and rematriation of Indigenous fire knowledges that include not only rights to steward lands with fire but our responsibilities to fire. Fire Back centers Indigenous epistemologies as a foundation for advancing Indigenous fire research and wildfire mitigation efforts done with, by, and for our peoples.

Similar to Leanne Betasamosake Simpson's (Mississauga Nishnaabeg) commentary on radical refusal and radical resurgence for coauthor Marlené Dusek, the Fire Back concept is about restoring Indigenous stewardship over fire as a practice without needing settlers and state-led permissions.[12] Fire Back reimagines communities freely engaging in cultural burns without bureaucratic barriers, seeing fire as integral to the land's health and cultural well-being.[13]

Figure 1. *Fire Back artwork from season two of the* Good Fire *podcast. Graphic courtesy of Amy Cardinal Christianson, 2022.*

Fire Rematriation

In our collective experience as a writing circle, we view the reawakening of Indigenous fire stewardship and cultural fire as important practices of rematriation, not as women's-only roles but in a rebalance of both women's and men's responsibilities. Most relevant to our Fire Back through rematriation framework, contemporary matriarch's work in sharing and teaching cultural fire stewardship and leadership has become a critical component of fire rematriation.[14] Rematriation acknowledges that our "ancestors lived in cultural connection with our lands for thousands of years, and that we have a sacred duty to maintain that relationship for the benefit of our future generations."[15] Our conceptualization also builds on the expertise and advocacy of the organization Rematriation, founded by Oneida matriarch Michelle Schenandoah.[16] This digital storytelling platform aims to support "the movement of rematriation across Turtle Island by uplifting Indigenous women's voices and raising human consciousness toward living in balance with Mother Earth." Further, Indigenous scholar Robin Gray shares a framing of rematriation "as an embodied praxis of recovery and return . . . revitalizing the relationship between Indigenous lands, heritage, and bodies based on Indigenous values and ways of knowing, being, and doing."[17] Significantly, the term

rematriate also comes to us from several Indigenous-led movements. "Rematriation means . . . to restore a people to a spiritual way of life, in sacred relationship with their ancestral lands, without external interference."[18] The Indigenous matriarchal coalition Sogorea Te' Land Trust in California is part of a larger effort to protect sacred sites from development in the San Francisco Bay Area, ancestral homelands of the Confederated Villages of Lisjan peoples.[19] Central to the coalition's vision is rematriation of land: restoring sacred relationships between Indigenous peoples and ancestral homelands, and honoring Indigenous women's leadership.

In her article "Wrestling with Fire," Melissa K. Nelson (Anishinaabe-Métis) asserts as a foundational principle of contemporary Native studies that "Indigenous women are rising and leading a new era of integrated activism based on Indigenous values and practices, especially in relation to water and fire."[20] She discusses rematriation as the process of renewing sacred agreements with seeds and the land, emphasizing the restoration of Indigenous knowledge systems and cultural practices. For Nelson, activism and struggle are at the center of her work, and it is central for Indigenous women to reclaim, revive, and revise—in short, to rematriate vital components, practices, and traditions in their respective Indigenous nations and communities as a form of "resurgence." She goes on to say the following:

> [I]ndigenous women are rising and leading a new era of integrated activism based on Indigenous values and practices—yet it is a struggle. Among other many roles, they are leading movements, nations, organizations, campaigns, universities, and communities, as theorist-activists, scholar-activists, spiritual leaders, seed-keepers, botanists, chefs, lawyers, and poets, while being informed by tribally specific Indigenous values and the intelligence of their lands and waters. As Indigenous peoples, as human beings, we are invited again to "wrestle with fire" within and without. My Anishinaabeg teachings tell me that humans are obliged to rebalance our relationships with our internal and outer climates as a form of resistance and resurgence; that includes land, water, skies, stars, animals, plants, others, and the unseen. As Indigenous women, we work to maintain our original instructions that outline Indigenous ways of being in reciprocal relationship with the regenerative power of fire and water.[21]

In our various roles, the contributors to this article each embody, in diverse and dynamic ways, many of the same struggles with which Nelson wrestles. Herein we offer our branch of knowledge: to combine shared stories of struggle, resistance, and persistence; to steward and protect cultural fire sovereignty; to heal and rematriate our Indigenous nations, communities, families, water, and lands.

Reawakening Matriarchal Fire

Many Indigenous scholars and writers describe this period as a reawakening, a powerful resurgence of Indigenous expression, cultural practices, and storytelling that have always been part of the Indigenous experience but were often suppressed,

dormant, or went unrecognized by non-Indigenous scientific, scholarly, educational, and cultural institutions.[22]

Traditional ecological knowledge originates from Indigenous creation and not as a response to survivance or survival from settler colonial imposition and destruction. We offer rematriation as a reversal of settler colonial imposition and oppression. It is a reawakening of an opportunity to restore acts of cultural continuity that emphasize resilience, agency, and the reclaiming of cultural and environmental governance within a context where Indigenous practices were systematically marginalized. For this article, we use *rematriation* to mean the return, revivification, and restoration of our responsibilities and relationalities with fire as our relative, while striving to rebalance Indigenous leadership, both men's and women's roles, integral in reflecting cultural practices that are holistic, that are threaded with traditional ways and values, and that step away from colonial conceptions of imposed gender and societal roles.[23]

In examining Indigenous cultural practices around fire and rematriation, Marlené Dusek highlights that "fire is part of our birth, death, and daily life . . . part of our creation stories."[24] Here, she frames fire as an essential part of the life cycle, embedded in ceremonial, daily, and primal aspects of Indigenous life. This quote underscores that fire practices are an inextricable element of cultural continuity. Dusek's comments note that cultural fire practices, often viewed by outsiders as "revived" traditions, are in fact continuations of Indigenous traditional ecological knowledge. These practices have been sustained through generations, even under the pressures of colonial suppression and regulation. For Dusek and her community, reclaiming fire helps them reconnect to the medicine and wisdom embedded in such practices, reawakening a deeply rooted cultural responsibility rather than "starting anew."[25]

Building on Dusek's perspective, coauthor Emily Burgueno's work with cultural fire and the rematriation of fire adds another layer to the concept of reawakening. Burgueno's work with cultural fire practices, informed by her Iipay-Tipaay heritage—the Paipa and Hilmeup Shumulq clans from the Iipay Nation of Santa Ysabel and the Manzanita Band of the Kumeyaay Nation—and her role as a seed-keeper, highlights her efforts to maintain kinship with the land, balance ecological systems, and pass down traditional Indigenous fire knowledge within her community. Her perspective reveals key concepts of cultural fire and rematriation, offering a counter-narrative to mainstream fire suppression policies. For Burgueno, rematriating fire is about restoring a relationship that has always been integral to Indigenous culture, particularly for matriarchs whose traditional roles include stewarding fire for both ecological and communal purposes. "There needs to be a balance when revitalizing a current practice or revitalizing a ceremony or practice that hasn't been done in ages," she advises. This balance is central to reviving cultural fire in a way that respects traditional values and adapts to modern challenges.[26] Rematriation, in her view, goes beyond simply "bringing back" fire practices; it is a reassertion of Indigenous traditional knowledge, respect for gendered roles, and the recentering of community relationships with the land.

Burgueno's advocacy for rematriating fire underscores a deeply held belief that cultural fire is not merely a land management technique, but a medicine—a way of

healing not only ecosystems but also the social, cultural, and relational bonds that connect Indigenous communities. "Cultural fire is a way of life, how we live our life, and the seasons that we live our life in." This quote underscores how deeply intertwined fire practices are with Indigenous lifeways and seasons. Cultural fire is a cycle, reflective of a harmonious existence with the natural world. Furthermore, according to Burgueno, engaging in a healthy relationship with fire "is not just a passion, it is like a relative." By treating fire as kin, Burgueno conveys the reverence and respect with which her community regards fire as a relative. Fire is not simply a tool; it is part of the familial and cultural fabric. Her perspective intentionally challenges colonial narratives that view fire practices as "revived" traditions, arguing instead that they are integral, living elements of her community's cultural cosmology, passed down through generations and sustained under the stresses of colonial restrictions. This is in alignment with the "reawakening" philosophy, as it views these practices not as lost knowledge brought back to life, but as traditions that persistently lived on, even if sleeping or practiced privately or covertly due to colonial suppression and criminalization.

Understanding Indigenous movements through the lens of reawakening and resurgence helps highlight Indigenous sovereignty, agency, and the intergenerational transmission of knowledge that continues to shape Indigenous fire relationality. Furthermore, by incorporating a rematriation framework in their approaches to fire, Burgueno and Dusek specifically challenge dominant (or, as we suggest, *default*) colonial fire suppression structures, which often exclude women and Indigenous expertise. This approach repositions cultural fire in a "medicine way," as a call for balance to honor the historical, spiritual, and ecological relations that Indigenous matriarchs and other leaders have always sustained. In doing so, both Burgueno and Dusek demonstrate that fire governance and the reclamation of fire as a cultural lifeway should involve Indigenous peoples at every level, and that genuine fire rematriation is a reawakening of ancestral knowledge that has continuously adapted and survived over time.

Interconnected Kinship of People, Fire, and Planet

An integral component to Fire Back is shifting perspectives of fire: not solely as a destructive force but one of renewal. A renewal lens allows us to view fire as relational and familial: fire is kin. When we acknowledge our more-than-human relatives, Indigenous peoples include land, water, and, as we suggest in this article, fire. Fire is both a physical and spiritual force, shaping the environment and, in turn, shaping human health. For our Indigenous communities, fire is not just an element of nature: it is integral to the health of people, communities, and ecosystems. Healthy people depend on a healthy planet, and a healthy planet is sustained by healthy fire. This interconnectedness highlights the importance of recognizing fire health as a part of overall community well-being and climate resilience (see fig. 2).[27]

Figure 2. *Interconnected kinship of people, fire, and planet fosters relational, ecological, and governance balance and Indigenous well-being. Graphic courtesy of Kelsey Leonard via Canva.com.*

Healthy Fire: Ceremonial Fire for Cultural and Socioecological Restoration

Indigenous peoples have a relational connection with fire: it is a spiritual being, a way we forge bonds with one another, spiritually and culturally. In one of the most wildfire-affected regions, the Sierra Nevada Valley, California, the Honorable Chairman Ron Goode, leader of the North Fork Mono Tribe, calls on us to center Indigenous culture in cultural fire demonstrations through understanding our relationship with fire. According to the chairman,

> The land is hungry—hungry for the return of traditional ways. Fire, like water and land, is sacred and revered as spiritual, and it is believed that the spirits of the land are always listening; while they know what we are doing, they ask what are "we" doing and why? Therefore, "we" must acknowledge this before we put fire on the land. The spirits of the land have been waiting for decades, for centuries, for this ceremonial fire: there are no benefits without an acknowledgement of the spiritual world, and ceremonies of any and all magnitudes are conducted to kick off the burn in a spiritual manner.[28]

Through ceremonial fire, the chairman enlists cultural and research protocols not typical within environmental science or fire ecology. For example, an experience by coauthor Melinda Adams at Chairman Goode's widely attended ceremonial burns in Mariposa, California, is reflected as an assertion of fire relationality, healthy fire, and healthy people. To start the day, all visitors and guests, representing all walks of life and tribal-allied representation, circled up for introductions. In this way, several layers of ceremony were woven together, with visitors stating who they were, where they came from, and what brought them to the chairman's burns. We found there was a specific reason they'd come to gather to work with fire, work with the land, work with Indigenous peoples. We learn that this space allowed some participants to work on their interpersonal growth with fire, as they may have been directly affected by extreme wildfires. Some were scientists who wanted to learn the science of working with cultural fire. For others, they wanted to keep their lessons of cultural heritage alive across the generations with their families and community. Many times, there were participants with children in all age ranges, which brought them to experience the village site, the surrounding beauty of Yosemite, and the regenerative power of cultural fire.[29]

Introducing each other in this way invokes Indigenous cultural protocols that serve several purposes: First, introductions create ceremony that unifies us in our cultural safety and competency, for Indigenous and non-Indigenous peoples alike, building respect for Indigenous ways of ceremony diminished through colonialism, ways to which we are finding our way back. The chairman begins with song, prayers, language, storytelling, and smudging with medicine. This is how we begin the work tending to our relations and working with lands and waters. By carrying ourselves this way, our ancestors and relatives hear us, recognize us, and understand our intentions for the day. We engage in these connections as protection, a cultural protocol to keep transmission of fire knowledge and practices—and ourselves—safe. Similarly, Burgueno views fire as an integral component for kinship, healing, and ecological balance. Cultural fires foster mindfulness and community ties while enhancing soil and biodiversity. Cultural fires also highlight and implement the sanctity of knowledge systems that stem from creation; cultural fires sustain these ceremonies and lifeways.

Healthy People: Fire Resilient

Fire Injustice

The increasing frequency and intensity of wildfires, fueled by climate change and decades of fire suppression, are causing significant shifts in fire health and justice across many communities, particularly for Indigenous peoples. For example, in June 2023 an unprecedented wildfire event created a climate crisis in the eastern region of North America: wildfire smoke from Canada overwhelmed much of the US Northeast including New York, especially for the Shinnecock Nation on the east end of Long Island, New York.[30] Here, secondary effects from catastrophic wildfire posed significant risk to vulnerable communities.[31] For many, the immediate health risks of inhaling toxic smoke were compounded by governmental orders to shelter in place.[32]

Confining Shinnecock community members indoors during June when some may not have adequate cooling in their homes increased potential risks for heat strokes and other dangerous health conditions. Moreover, community members did not have the option to evacuate, as the air quality was impaired throughout the East Coast. Natural disasters expose structural evacuation limitations for Indigenous communities on Long Island. Constrained off-island mobility—resulting from minimal transportation corridors—and the magnitude of the evacuee population collectively undermine rapid and coordinated evacuation efforts.[33]

On the east end of Long Island, aside from boat or helicopter, there is only one evacuation road off the island.[34] In recent years, increasing wildfire events including smoke from continental fires and brush fires near the Shinnecock Nation Territory raised questions surrounding fire evacuation and climate-driven mobility justice. As such with extreme wildfires or wildfire smoke, it is often impossible to evacuate, and therefore requires individuals, families, and tribal nations to shelter in place, leading to potential exposure to hazardous smoke, polluted air, and even the physical dangers of wildfire. This scenario exemplifies fire injustice: the inability to evacuate represents a significant challenge faced by Indigenous peoples when living in remote, isolated, or island territories, leaving them disproportionately affected by environmental crises. These communities are often the last to receive adequate support for evacuation and disaster response due to systemic mobility inequities.[35] For these communities, the ability to evacuate is not just a matter of safety; it is a fundamental human right to mobility and safety during extreme climate events.

Mobility justice highlights the unequal distribution of resources that hamper the ability of Indigenous peoples to move and respond to disasters such as wildfires.[36] This directly contributes to fire injustice. Without proper infrastructure, resources—technical, financial, and human—and mobility options, many Indigenous communities find themselves stranded in the face of increasingly intense wildfire seasons. In the case of the Shinnecock Nation, the lack of a reliable evacuation route illustrates how geographic isolation can leave people at risk when disaster strikes. For communities in areas where evacuation is not an option, individuals and families are forced to shelter in place during extreme events, leading to potential exposure to hazardous smoke, polluted air, and even the physical dangers of a wildfire. This issue is compounded by historical and contemporary contexts where Indigenous peoples have been systematically excluded from decision-making processes that affect emergency management and fire governance.[37]

Addressing fire injustice and ensuring mobility justice for Indigenous peoples requires integrating Indigenous knowledge into disaster planning, developing infrastructure for safe evacuations, and addressing systemic barriers to Indigenous inclusion in fire governance. It is not just a matter of providing resources for evacuation but also ensuring that Indigenous communities have the tools and authority to manage fire and protect their territories in ways that honor cultural practices and health needs. This holistic approach acknowledges that a healthy planet—healthy people—requires not only protecting individual health but also the health of fire itself.

Fire Guardianship

One way of addressing fire injustice is enhancing fire decision-making, or fire governance, through Indigenous fire guardianship: promotion of a fire regime reflective of Indigenous community-led fire and land guardianship practices through the use of collaborative partnerships.[38] Indigenous fire guardians are a key part of maintaining biodiversity and providing nature-based climate solutions. This includes using low-intensity controlled burns to aid in more culturally relevant, resilient biodiversity in grasslands, wetlands, and forested areas; exploring the potential for nontimber forest products on Native lands (for example, medicinal plants, agrotourism, culture camps); and supporting innovation by putting "good fire" back on the landscape as a tool for wildfire risk mitigation, cultural revitalization, and habitat restoration.[39] In 2022, the Indigenous Leadership Initiative released a national strategy on Indigenous fire guardians, calling for increased support for Indigenous fire guardian positions. In Canada, an Indigenous Fire Guardian Program currently operates within the Káínai Nation (Blood Tribe) in southern Alberta alongside emerging training initiatives such as the Prince Albert Grand Council Fire Guardian Pilot Project in northern Saskatchewan.[40] Similar programs are well established in Australia and continue to expand in the United States.

As part of having healthy fire, healthy people and a healthy planet, Indigenous Fire Guardians can be involved in all stages of wildfire management, depending on the needs of the given community. This can include, but is not limited to, wildland firefighting; cultural burning; fire-effects monitoring; water-quality monitoring; cultural-biological keystone species monitoring; youth education; knowledge-sharing and learning from elders; and wildfire mitigation activities (for example, thinning and brushing fuels; "FireSmart-ing," or enhancing the resilience of Indigenous communities against wildfire). Indigenous fire guardians support a holistic approach to Indigenous-led conservation: preventing and mitigating uncontrolled wildfires and smoke on the landscape while restoring and expanding habitats for cultural-biological keystone species.[41] Indigenous Fire Guardian Programs provide year-round benefits with the potential to increase community members' employment on long-term projects that support capacity-building and economic development. Such programs also mobilize and apply Indigenous fire knowledge throughout the given community and inform "good fire" practices and protocols.

Amy Cardinal Christianson shares her story about strengthening Indigenous nationhood in relation to healthy fire, healthy people, and a healthy planet:

> I love the Indigenous fire part of my work, but what I love more is the opportunity it has given me to meet such dynamic and interesting groups as the Indigenous Peoples Burning Network, First Nations' Emergency Services Society, Prince Albert Grand Council, Interior Salish Fire Keepers, and the Muskrats to Moose Project Team, just to name a few, and really learn together. It is about disrupting the narrative on the current perspectives on fire to expand the discourse on good fire and the role of Indigenous-led fire practices on the land for the benefit of all.[42]

Amy is Métis, and grew up in Treaty 8 territory (northern Alberta, Canada). Her Métis relations are the Cardinal (Peeaysis Band) and Laboucane (Laboucane Settlement) families. She currently lives near Rocky Mountain House in Treaty 6 territory (central Alberta). Amy is a mother, daughter, sister, and wife. She holds a PhD in human geography, is senior fire adviser with the Indigenous Leadership Initiative (ILI), and is currently leading the ILI fire program with a focus on Indigenous leadership and nationhood-building. Amy was a research scientist with the Canadian Forest Service (Natural Resources Canada) for fourteen years as well as a former Indigenous fire specialist in Parks Canada's National Fire Management Program. Working with and alongside Indigenous communities across Canada and Indigenous peoples around the world on decolonizing land management, Amy brings together research, practice, and advocacy to advance Indigenous fire stewardship. Applying a social justice and human rights lens to her scholar-practitioner and advocate roles, Amy is a visionary leader in rematriating Indigenous cultural fire and sovereignty. Notably, she is coauthor of *First Nations Wildfire Evacuations: A Guide for Communities and External Agencies* and *Blazing the Trail: Celebrating Indigenous Fire Stewardship*. Most recently, she coauthored the *Create a Cultural Burn Pathway* workbook that helps Indigenous communities re-engage in cultural burning, decreasing wildfire risk and revitalizing the communities' relationships with the land. She continues:

> Through my work at the Indigenous Leadership Initiative, I am guided by Indigenous elders such as Solomon Carrière about the importance of cleaning the land by using fire. Elder Paul Courtoreille also reminds me about the role of the Thunderbird and its association with storms: a majestic bird flapping its wings and charging energy . . . resulting in lightning strikes that form fires. So, the Thunderbird is about reclaiming nature where we (as Indigenous peoples) are carrying out cultural fires—replicating the responsibility and relationship of lightning on the land through longstanding observation, trials, and knowledge-sharing (oral storytelling).
>
> As it applies to "rematriating Indigenous cultural fire and sovereignty," it is about making the land healthy, improving biodiversity, [and] reinvigorating cultural practices by reconnecting to community while advocating for social justice and human rights for Indigenous peoples, their families and communities. This infinite knowledge and wisdom from elders in rematriating Indigenous cultural fire and sovereignty is being transformed into the design and implementation of Indigenous Fire Guardian Programs, the establishment of Indigenous Protected and Conserved Areas (IPCAs) across Canada, and the creation of the Thunderbird Collective, a new national Indigenous fire stewardship working group in Canada.[43] Ultimately, it is about reinvigorating fire: Indigenous peoples (in particular, Indigenous women) renewing their relationship [as] caretakers of the land.[44]
>
> In Canada, wildfire management is generally a white male–dominated, seasonal, organizational culture. As an Indigenous woman in the wildfire space, I use my power and influence to step up and advocate for culturally safer spaces for

> Indigenous wildland firefighters, reintroduce cultural burning in Indigenous communities, and address inequities in settler and state-led systems, legislation, regulations, and policy that impact Indigenous fire stewardship across Canada and globally. It is important not to be tokenized as an Indigenous woman in these spaces, where there is often an expectation for you to share romanticized stories about the relationships of Indigenous peoples and fire without discussing the ongoing effects of intergenerational trauma from oppression, colonialism, legislation, and policies.[45]

Amy cohosts the *Good Fire* podcast, which discusses Indigenous fire use around the world.[46] In season three of the podcast, Amy interviewed Indigenous matriarchs across the globe and their roles and responsibilities related to fire. She is heartened by grassroots groups of Indigenous women who are gathering to convene—in-person and through social media—as community circles, to talk and share knowledge about fire.

Healthy Planet: Fire Adaptation

The combination of fire suppression and climate change has reshaped the landscape of fire regimes around the world, amplifying the frequency, intensity, and unpredictability of wildfires. Indigenous communities, whose Indigenous knowledge systems and practices are interwoven with the land and waters, have witnessed firsthand the impact of these shifts. Our connection to the environment encompasses a range of activities from plant and berry harvesting to ceremonial practices, all of which are profoundly affected by changing fire systems.[47] In particular, common fire events for Indigenous peoples affected by changing climate conditions include home fires, wildfires, prescribed burns, cultural fires, and ceremonial fires. These different types of events have impacts on Indigenous peoples and communities ranging from harmful to nurturing, recognizing that fire not only can give life but also take it away.[48] Moreover, these diverse fire events present unique exposure pathways (such as inhalation, ingestion, and dermal exposure), including direct and indirect impacts, and the intersection of climate change, fire justice, and fire adaptation in Indigenous communities (see fig. 3).[49]

Climate Change and Indigenous Fire Justice

Rematriating cultural fire and sovereignty can demonstrate "Indigenous fire justice," which fulfills distributive, procedural, and recognition justice in Indian country.[50] First, distributive justice is met by mitigating environmental harm through home hardening in fire-prone communities, to which many Indigenous communities are placed. Procedural justice is reached as Indigenous communities exercise autonomy in decision-making over fire, including setting the goals of cultural burns and determining which community members may participate. Recognition justice is demonstrated through exercising cultural fire sovereignty, affirming Indigenous communities have the inherent right to steward their homelands through the use of fire stewardship on their terms.[51] For Emily Burgueno, Indigenous fire justice is activated through what she champions as "sovereign burns." Sovereign burns assert tribal sovereignty and centers

Figure 3. *Fire Exposure Pathways, Climate Change, and Indigenous Health and Well-Being. Courtesy of Kelsey Leonard using Canva.com.*

priorities aligned with tribal laws, protocols, and traditions rather than colonial regulations. Recognizing that colonial bureaucratic barriers have systematically removed cultural fire and continues to dehumanize cultural fire experts, Burgueno advances the concept of sovereign burns as upholding responsibilities to healthy fire, healthy people, and healthy planet.

Indigenous communities often rely on the land for their cultural, spiritual, economic, and subsistence practices. These activities, such as plant and berry harvesting, fishing, hunting, and ceremonial observances, are directly linked to good fire used to maintain the health of the ecosystems that sustain them. However, increasing wildfire events fueled by climate change that disturb the regeneration cycles of those ecosystems have introduced new exposure pathways for humans and non-humans, creating a complex web of environmental, physical, health, and psychological risks for Indigenous peoples.[52,53,54,55]

While fire can offer cultural, social, spiritual, relational and ecological benefits, extreme fire events pose significant risks.[56] The smoke and particulate matter released during fire events have severe health impacts, especially for Indigenous communities, causing and or exacerbating existing respiratory issues and cardiovascular diseases.[57] Fires have also resulted in forced evacuations, displacing communities and disrupting local economies.[58]

In addition, the destruction of homes and infrastructure causes long-term social and economic disruptions.[59] Post-fire environments can become hazardous, with soil erosion and the introduction of harmful fire-suppression "forever chemicals" into water sources, further complicating access to food and medicinal plants.[60] Fire events leave behind ash and dust, contributing to dermal and inhalation exposure.[61] Fires also affect rivers, lakes, and hunting grounds. Runoff from burned landscapes can contaminate water sources, introducing toxins and pollutants into food chains.[62] This jeopardizes Indigenous food sovereignty, as hunting and fishing are essential to community health and well-being.[63] Sacred sites may also become unsafe or inaccessible due to smoke, destroyed vegetation, or altered landscapes, disrupting cultural practices and connections to the land.[64] In short, destructive wildfire is eroding our ceremonial cycles and subsistence lifeways.

As figure 3 shows, fire impacts are not always harmful. They can also be nurturing depending on the circumstances.[65] Fire, when following Indigenous protocols and cultural safety, serves as a powerful tool for ecological rejuvenation and cultural practices.[66] Prescribed and controlled fires are planned burns conducted by trained fire professionals to manage and restore lands and waters. Unlike wildfires, prescribed burns take place under specific weather conditions, require significant preparation, and follow explicit incident command safety protocols for both the public and fire professionals.[67] Cultural fires go by many names, have many objectives, and provide many sources of healing.[68] Indigenous-led intentional burning—cultural fire and cultural burning—promotes intergenerational teaching and responsibility to the land, enhancing diversity and productivity of species, food, medicine, and ceremony.[69] It actively involves communities and families to support overall community health.[70] Further, cultural burns are intentionally set and managed to reduce the buildup of

combustible vegetation, promoting healthy ecosystems.[71] These burns help maintain biodiversity by reducing diseased plants and controlling pests, preventing them from spreading.[72] In addition, cultural burning stimulates the regeneration of fire-adaptive species, which are specifically adapted to thrive after a fire.[73] These species, such as certain berries, oaks, pines, or fireweed, benefit from the heat and ash, which provide nutrients that foster new growth.[74] Forest regeneration is also facilitated by fire, as it clears the forest floor of debris and opens up space for younger plants to thrive.[75]

Moreover, Marlené Dusek observes that Indigenous cultural burners emphasize the fire connection to water—maintaining healthy water sources and watershed, which is directly linked to the health of fish and wildlife as a whole, but especially in the face of settler mismanagement of sacred waters that have been diverted and depleted. For Marlené, rematriation of fire stewardship is connected to rematriation of water health. In Indigenous communities, cultural uses of fire, such as cultural burns or ceremonial fires, have an integral role in maintaining ecological balance and ensuring that the land, planet, and people remain healthy and thriving. The rejuvenation of soil, promotion of new growth, and connection to water contribute to both ecological health and food sovereignty, providing vital spiritual and physical sustenance for communities. To facilitate cultural fire rejuvenation, cultural safety is paramount to this journey.

Cultural Safety

As scholars, we observe that we are in a rematriation of scholarship in which authors have recently written about the importance of cultural fire and Indigenous fire stewardship. It is not a coincidence that, to reclaim our cultural practices, we must feel a sense of cultural safety, and it was not until recently that practitioners felt safe, or at least safer, to embrace and reclaim their Indigenous fire stewardship practices. This reclamation has lent itself to the increase in cultural fire scholarship, which includes this article. Cultural safety is a way of being, created by a trusting and respectful environment involving the transformation of relationships in organizational structures, policies, and practices. Initially based on Māori experiences in the health-care system, cultural safety is based on a framework of two or more cultures interacting in a colonized space in which one culture is legitimized and the other marginalized.[76] This can happen in hospitals, schools, workplaces, and many other different service settings.[77] Furthermore, "a culturally safe environment is physically, socially, emotionally, and spiritually safe. There is recognition of, and respect for, the cultural identities of others, without challenge or denial of an individual's identity, who they are, or what they need. Culturally unsafe environments diminish, demean, or disempower the cultural identity and well-being of an individual."[78]

As it applies to rematriating Indigenous fire practices, cultural safety is trauma-informed and can only be defined and assessed by the Indigenous person, their family and community within the given community and related group setting. Outcomes can range from feeling physically, socially, emotionally, and spiritually safe and respected to experiencing the absence of racism and discrimination; from feeling comfortable being themselves and expressing all aspects of who they are as Indigenous peoples to feeling

that one's Indigenous culture is acknowledged, appreciated, and incorporated into the wildfire space.[79] Furthermore, cultural safety in the wildfire space can be recognized at various levels from micro (individual) to macro (environmental and societal—land, place, and geography). Fostering spaces where Indigenous cultural practices are seen, heard, included, and respected, relationality is built from cultural safety, promoting equity in the use of Indigenous-led fire practices: facilitating the exercise of inherent rights by Indigenous peoples, families, and communities in this current cultural fire resurgence. Cultural safety has significant implications for Indigenous wildland firefighting personnel across North America, where there is an increasing need to enhance recruiting and selecting, rewarding and retaining, developing and coaching workers and their supervisors as a means of creating a work environment that is inclusive, welcoming, healthy, and safe.[80]

Of note, elders, Indigenous fire-keepers, and Indigenous fire practitioners advise us that fire practices based on settler and state-led wildfire management can never be culturally safe; they can only be culturally *safer*. Becoming culturally safer is a continuous improvement journey for everyone. An endpoint is never reached. More can always be said or done. As such, it is *imperative* to explore cultural safety as an occupational health and safety issue in the wildfire space.[81]

Coauthor Madeline Courtorielle shared her story about the role of cultural safety in wildland firefighting: "Fire is a 'living being,' it is something that is to be respected: it can be good (in specific controlled conditions) and result in rejuvenating life. It can also be destructive and uncontrolled, so you must be careful."[82]

Madeline Courtorielle is a Métis woman, daughter, sister, auntie, and mother from the Gift Lake Metis Settlement in northern Alberta. Madeline has had a connection with Indigenous cultural fire from her youth. "Fire has pretty much been part of my entire life. My biggest inspiration has been my dad. He taught me about safe ways to use fire. My dad handed down this knowledge to all of his kids. I was really interested in my dad's work in wildland firefighting and how he engaged in Indigenous-led fire practices like cultural burning. Though I missed him during annual wildfire seasons when he was traveling quite a lot, I was happy for him and the work that he was doing to protect our Indigenous communities. My dad also led cultural burns on our property, and, as a family, we would carry out [cultural] burns every spring. So, that's how I learned about Indigenous-led fire practices and developed my knowledge of fire, land, and culture."[83]

Growing up, Madeline saw the practice of cultural burning on the family property each spring; the use of fire as a heat source for cooking and warming the home; and the practice of ceremony in healing the spirit. "Women in my family are really big on ceremony: smudging and using the sweat lodge.[84,85] My mom taught me how to smudge. She also shared with me that when you are going through [challenging] times, write your feelings and experiences down on paper and then hand it over to the fire. From there, they will go to the Creator to support your [healing] journey. When using the sweat lodge, there was a fire-keeper and you learned about respecting the [sacred] fire and the heating of the rocks. These experiences really opened my eyes to cultural fire."[86]

To Madeline, fire stewardship is intrinsically connected to her responsibilities as a woman, a mother, and a wildland firefighter. "Being away from my kids while being a wildland firefighter has been tough. Also, the weather conditions were harsh; some days during the winter, I was working on FireSmart activities such as pruning and hazard tree removal in −30 degrees Celsius (−22 Fahrenheit). It is quite the experience. Adding to these already challenging conditions, I faced discrimination being an Indigenous woman in wildfire. It is hard, because you know that some crew members are looking down on you because you are an Indigenous woman. This can really weigh on you. As I was often the only Indigenous woman on wildfire crews, you know, I pushed myself more (particularly, running chainsaw) to work just as hard as the men. Some of the guys [on the front lines] were, like, 'I didn't think a [Indigenous] woman would be that strong!' So, to know that I was making a positive impact for Indigenous women by showing strength and knowledge in wildland firefighting was important. I am proof that Indigenous women can do this."[87]

For Madeline, "rematriating Indigenous cultural fire and sovereignty" means the ability for Indigenous peoples to fully recognize Indigenous knowledge about fire. This includes using Indigenous-led practices on the land without the constraints of colonial legislation, policies, and regulations from settler and state-led orders of government, which have and continue to oppress and marginalize Indigenous peoples across Canada. This phrase also means confronting stereotypes and stigma about being an Indigenous woman in wildland firefighting. Rematriating Indigenous cultural fire and sovereignty is about ensuring that Indigenous women's voices are heard. We are leaders at all levels: from the different roles that we hold in the community to those we are responsible for in our workplace.[88]

Madeline acknowledges that there is growing interest by Indigenous women becoming involved in wildfire management and cultural teachings. Her ultimate goal is to facilitate opportunities for more Indigenous women to become involved in leading wildfire crews and to have all Indigenous female crews on the frontlines during annual wildfire seasons in northern Alberta.

Fire Governance: Policy and Practice

To understand and appreciate Indigenous peoples' living histories with fire, it is important to understand how current reports and declarations are endeavoring to recognize and reconcile the effects of colonialism, which includes rematriating and codifying Indigenous cultural fire and sovereignty. Refer to the supplementary material that provides a table of notable reports and declarations affecting and influencing Indigenous fire governance. Governance is "a process whereby societies or organizations make decisions, determine whom they involve in the process, and . . . render account."[89] The system or framework of governance is "the agreements, procedures, conventions or policies that define who gets [authority], how decisions are taken, and how accountability is rendered."[90] Principles of governance can be applied to any group—from communities and not-for-profit organizations to the United Nations. So, the scope of governance can vary widely from local to global collectives. Governance involves

making and acting upon decisions on behalf of a group, community, or organization. Many Indigenous communities have their own laws, policies, and governance structures that often comprise sacred law (*e.g.*, origin stories), natural law (relationships to place, land, and the broader natural world), deliberative law (*e.g.*, talking circles, council meetings, gatherings), positivistic law (*e.g.*, teachings, protocols), and customary laws (*e.g.*, family relationships, land claim agreements).[91] These Indigenous-led laws, policies, and governance structures aid in formal decision-making with collective long-term purposes. They function as principles for action and guidelines for activities. Our Indigenous-led fire practices are the methods or means by which we take action on the land based on our established laws, policies, and governance structures. Therefore, we offer Indigenous fire governance as the incorporation of Indigenous knowledge into disaster planning and infrastructure development for safe evacuations as well as a process to address systemic barriers to Indigenous fire decision-making. It is not just a matter of providing resources but enacting protocols to ensure that Indigenous nations and communities have the tools and authority (read *leadership roles*) to manage fire in ways that include their cultural practices.

Having recognized the colonial bureaucratic barriers that have systematically removed cultural fire and continue to dehumanize cultural fire experts, it is important for us to uphold and exercise our Indigenous-led sovereignty in relation to healthy fire, healthy people, and a healthy planet. Fire governance is a fundamental dimension to advancing transformative change in wildfire policy.[92] As Madeline Courtorielle shared in her story, rematriating Indigenous cultural fire and sovereignty involves advancing fire governance, whereby Indigenous-led practices are used without the constraints of colonial legislation, policies, and regulations from settler and state-led orders of government, which have and continue to oppress and marginalize Indigenous peoples.

Reflecting on her lived experiences, coauthor and Indigenous fire guardian Michela Carrière shared her story on fire governance and rematriation: "Fire is a tool to care for the land when we respect seasonality and conditions for cultural burning."[93] Michela is Cree-Métis from Cumberland House, Saskatchewan. She is a daughter, sister, wife, and mother, raised in northern Saskatchewan where she learned canoeing, hunting, and trapping from her family. She is a certified Wilderness First Responder, certified horticulturist, herbalist, adventure tour guide, beadwork artist, author, and once competed on *Alone*, a survival competition series. Michela has ten years of experience in cultural burning in the geographic area known as *kisiskāciwani-sīpiy maskēko askīy* (Saskatchewan River Delta) and neighboring areas. This includes five years of facilitating experiential, land-based fire camps, notably the We Are Fire (cultural burning revitalization) camps. With guidance from Solomon and Renée Carrière, her father and mother, and support from a multidisciplinary project team, Michela led the *wānaswēwina* (Equality of Laws) project in the *kisiskāciwani-sīpiy maskēko askīy*. Specifically, Michela engaged in land-based and policy-oriented activities to aid in navigating, influencing, and transforming change in wildfire policy. Expanding upon the Indigenous-led and -informed Muskrats to Moose Project, Michela and her project team recognized and gave voice to the laws of nature and Indigenous ecological knowledge in relation to provincial (Saskatchewan) wildfire policies.[94] She

is assisting the Prince Albert Grand Council and member nations to transform policy while mobilizing and demonstrating Indigenous fire stewardship knowledge about cultural burning: reducing fire risk, enhancing habitat restoration for cultural-biological keystone species, and re-engaging in Indigenous ways of knowing.

Michela sees "rematriating Indigenous cultural fire and sovereignty" as navigating, influencing, and transforming change in wildfire policy related to the Land Back movement. It is manifested in strengthening Indigenous self-determination through land, fire, and water guardianship. "Rematriating Indigenous cultural fire and sovereignty facilitates creating and sharing new ways of knowing: recognizing the strengths of Indigenous-led fire practices alongside settler and state-led wildfire management."[95]

Putting transformative change into action remains a complex task across various orders of government. For example, orders of government in Canada have generally discouraged intentional burning by nonagency fire practitioners. This discouragement has resulted in Indigenous traditional ecological knowledge (ITEK) not being sustainably passed on from elders and Indigenous fire practitioners to younger generations.[96] To fully recognize land-based cultural practices such as Indigenous-led fire practices, Michela is leading advocacy, sharing knowledge, and exercising sovereignty as fundamental dimensions to advance transformative change in wildfire policy. The role of language revitalization in relation to rematriating Indigenous cultural fire and sovereignty is paramount to Michela and her parents, Renée and Solomon Carrière. Language facilitates the opportunity to recognize various dimensions of fire in relation to the land—mind, body, and spirit. Notably, the Carrières shared that *iskotew* is the Cree word for fire; women is *iskwew*. The fire is the center of the *tipi*, and *iskwew* (women) are the keepers of the lodge fire. Also, the Cree root word of fire is "heart."[97] Similarly, fellow cultural fire practitioner Emily Burgueno stresses the connection to understanding cultural fire's origins that stem from Kumeyaay creation stories, which every generation is responsible for maintaining through traditional language, songs, and knowledge systems. The Kumeyaay word for the spirit is *maathaaw*, which translates literally to "the body's fire" or "the fire within," which she reminds us is a direct concept linked to Indigenous ecological knowledge originating in Kumeyaay cosmology. Indeed, language and cultural continuance practices are integral to Fire Back through rematriation: language revitalization, language learning and relearning, and cultural continuance are integral components to the Fire Back movement.

The future for Michela involves continuing to share with her father and mother at various conferences and related workshops across Canada about Indigenous-led and informed burn planning, discussing the implications of climate-change impacts on land, people, place, and identity. She is also carrying out assessments of "good fire" twice yearly in the *kisiskāciwani-sīpiy maskēko askīy* and its effects on five defined cultural-biological keystone species, which includes the creation of an Indigenous-led and informed sampling protocol. "I enjoy carrying out Indigenous-led and informed fieldwork with my dad and mom. It is an opportunity for Team Carrière to share knowledge across the generations about the land and plants in the *kisiskāciwani-sīpiy maskēko askīy*, to practice our culture, and to inform policy through the use of Indigenous-led research."[98]

Fire Back: Actions for Cultural Fire Sovereignty

To uphold reciprocal practices that center our communities and culture, whereby we reflect on our individual and collective actions to support continuous learning and growth about cultural fire, we highlight ways forward that support Fire Back and rematriating cultural fire sovereignty (see fig. 4).

Ceremonial Fire. As a collective, this paper forwards kinship and healing while centering Indigenous culture in cultural fire and Indigenous stewardship. Healthy fire is ceremonial fire. We must acknowledge this core component before we put fire on the land. The land has been waiting for decades, for centuries, for this ceremonial fire. Cultural burns are a form of kinship and healing that connects people to the land and to surrounding ecosystems. Fire not only helps in the stewardship of vegetation and soil health but also serves as a medium through which community ties are strengthened. This shared experience slows people down, grounds them in the environment and encourages mindfulness. Ceremonial fire encompasses cultural protocol to keep transmission of fire knowledge and practices—and ourselves—safe. Integral to ceremonial fire is cultural safety.

Cultural Safety. Cultural safety is a way of being, created by a trusting and respectful environment involving the transformation of relationships in organizational structures, policies, and practices. Elders, Indigenous fire-keepers, and Indigenous fire practitioners advise us that fire practices based solely on mainstream wildfire management can never be culturally safe; they can only be culturally *safer*. As such, it is important to prioritize cultural safety as an occupational health and safety issue in the wildfire space. Further, as scholars, we observe that we are in a rematriation of scholarship in which Indigenous authors have written (sometimes as the first non-oral account) about the importance of cultural fire. It is not a coincidence that, to reclaim our cultural practices, we must feel a sense of cultural safety, and it was not until recently that practitioners felt safe to embrace and reclaim our Indigenous fire stewardship research practices. This reclamation has lent itself to cultural fire scholarship, including this paper.

Fire Health. The increasing frequency and intensity of wildfires, fueled by climate change, are causing significant shifts in fire health and justice. For many, the immediate health risks of inhaling toxic smoke, compounded by orders to shelter in place or an inability to evacuate, unveil urgent issues in wildfire management and disaster response, the disproportionate effects of environmental crises, and issues of fire injustice. One way of addressing fire injustice is to invoke Indigenous fire justice through Indigenous fire guardianship. Here, enhancing fire governance through Indigenous fire guardianship supports promotion of a fire regime reflective of Indigenous community-led fire and land guardianship practices through the use of collaborative partnerships and Indigenous-led fire practices. As part of having healthy fire, healthy people, and a healthy planet, Indigenous fire guardians should be involved in all stages of wildfire management, including evacuation and emergency response, depending on the needs of the given community. It is also central to create sustainable funding pathways and training opportunities to support this guardian work.

Figure 4. *Dimensions of Fire Back: Ceremonial Fire, Fire Health, Fire Adaptation, Fire Governance, and Cultural Safety. Courtesy of Dancy Panther Dixon.*

Fire Adaptation. To build adaptive capacity, we propose reframing cultural fire as a "relative," not merely a "management" tool but an integral element of life and a longstanding tradition rooted in many Indigenous cultures across what is currently known as Canada and the United States, and throughout the world. Rather than being feared, cultural fire, when practiced according to Indigenous and natural laws without external agency processes, is a balanced approach that integrates Indigenous traditional ecological knowledge with land stewardship for the betterment of future generations.

Cultural fire embodies past and current community traditions, creation stories, healing practices, and the roles of women in their family and tribal community. To rebuild a healthy planet, we propose recognizing Indigenous worldviews, such as viewing fire as relational kin—our more-than-human relative. When we address "more-than-human relatives," we recognize this includes water, land, plants, animals, and—as we propose—fire. This shift in perspective and actions allows for an epistemological realignment away from viewing fire solely as destructive and more toward regenerative stewardship. Perhaps when we embrace this worldview, we might gain a better appreciation of Indigenous lifeways, cultural stories, and stewardship responsibilities.

Fire Governance. Indigenous communities have their own laws and governance structures that are often composed of sacred law (creation stories), natural law (relationships to place and land), deliberative law (talking circles, council meetings), positivistic law (teachings, protocols), and customary laws (land claim agreements). In offering what we term "cultural fire sovereignty," this includes sovereignty as both a nation-state apparatus but more closely as sacred law and governance, communal democracy in fulfilling our cultural responsibilities codified in our stories and intergenerational teachings. To situate Indigenous fire stewardship in nation-state entities, it is essential to reference current reports endeavoring to recognize and reconcile the effects of colonialism, which includes codifying Indigenous cultural fire into policy (refer to the supplementary table listed above). Moreover, as a part of cultural fire sovereignty, this paper offers the concept of *sovereign burns*. These burns center priorities aligned with tribal laws, protocols, and traditions rather than nation-state regulations. Recognizing colonial bureaucratic barriers that have systematically removed cultural fire and continue to dehumanize cultural fire experts, sovereign burns uphold fire governance through enacted responsibilities of healthy fire, healthy people, and a healthy planet.

In summary, the concept of rematriation manifests in reclaiming Indigenous lifeways and values, centering matriarchal roles in the Land Back movement, Water Back movement, and, as our paper presents, Fire Back movement. Cultural fire is a relational, healing practice tied to ecological, societal, political, and spiritual balance. Rematriation of fire is a pathway to reclaim Indigenous sovereignty, emphasizing Indigenous matriarchs' vital roles and the call to dismantle systemic barriers. Their insights provide a unified vision of fire, not just as a "management" tool but as a living tradition intertwined with identity, people, place, and the land.

Conclusion

In closing, as settler colonial encroachment and climate change are increasing the severity and complexity of wildfires across Canada and the United States, the diverse voices, perspectives, and experiences of Indigenous peoples provide valuable guidance on Indigenous-led and informed approaches to fire practices.[99] An urgent need exists to encourage calls for revitalization, recognition, and increasingly meaningful engagement with Indigenous peoples regarding Indigenous-led and informed fire practices and ways of knowing. Through story-sharing and reflective practice, we highlighted various dimensions of the Fire Back through rematriation movement: reclaiming Indigenous cultural fire and sovereignty. Through this culturally informed lens, cultural fire is medicine as

both a literal and symbolic healer, necessary for environmental health and community well-being. Lifting the voices of Indigenous peoples—particularly the matriarchs—within the wildfire space facilitates policy discussions on fire governance, identifying systemic barriers that continue to marginalize Indigenous fire practices while advocating for communal, inclusive approaches to fire management: identifying the need for policy changes that respect Indigenous sovereignty and knowledge. Cultural fire and rematriation emphasizes fostering resilient ecosystems, empowering community members, and protecting Indigenous cultural heritage: healthy fire, healthy people, healthy planet. Through this collection, we outlined ways forward that support cultural fire sovereignty and guardianship in the form of our Fire Back framework: ceremonial fire, cultural safety, fire governance, fire health, and fire adaptation. Fire Back through rematriation affirms Indigenous knowledge systems not as an alternative but as a key foundation for comprehensive land stewardship, fire guardianship, and cultural continuance for all.

Dedication

Madeline Courtorielle dedicates her writing contributions to her baby sister, Patience, who also wanted to follow in the family tradition of wildland firefighters but unfortunately passed away.

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