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# Solastalgia to Soliphilia: Cultural Fire, Climate Change, and Indigenous Healing

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## **Abstract**

Wildly destructive fires, wind driven through unmanaged and untended lands, take lives and homes and the solace of familiar places. Ash blankets the remains, trauma takes hold, but even when the smoke clears and communities begin to heal, there is a loss beyond words. These wildfires reveal the ways many are lacking relationships with the land. Without good relationships with our environments, we worsen the health of land, plants, and animals. In this article, we foreground the experiential richness of storytelling as we build upon previous publications in Ecopsychology, further supporting the importance of traditional perspectives in promoting ecological understandings of ourselves within and as part of our environments. Cultural fires go by many names, have many objectives, and provide many sources of healing. At the Intertribal Cultural Burns on Southern Sierra Miwuk land hosted by Chairman Goode and Myra Kirk Goode, attendees learn about traditional ecological knowledge (TEK), about cultural practices, and using fire in a good way. Putting fire on the land means becoming attuned to the temperature, the shift in the winds, and the response of a branch waving with smoke. We share food, stories, and laughter. "Soliphilia is the political affiliation or solidarity needed between us all to be responsible for a place, bioregion, planet, and the unity of interrelated interests within it." According to Chairman Goode, the land is hungry for the return of traditions and traditional ways; hungry for "proper fire" back on the land, hungry for the spirituality. The land, the spirits of the land have been waiting for decades, for centuries, for this "ceremonial fire." Weaving our varied and overlapping experiences and knowledge together, we illuminate the spirituality of TEK, the powerful Indigenous healing that is nourished by the constructive action of cultural burning, and the hope that grows as solastalgia transforms into soliphilia. Key Words: Indigenous knowledge—Traditional ecological knowledge—Climate change—Cultural fire—Solastalgia—Soliphilia

# Introduction: Erica Tom, PhD

fter the fires, thick blankets of startling white ash covered the places where houses had once stood. Walking through the remnants of my childhood home, ash billowed in little clouds and stuck to my boots. White mud clung to my shoes. I walked through the place where my family room had been, where my bed had fallen with the second story: the iron frame had been twisted by the flames, as if gripped by a giant's hands. The refuge of those walls, where I could walk through the door and return to the safety of *home*, was destroyed. Although my family survived, the landscape of my emotional and physical safety was forever altered by the 2017 wildfires that raced across Wappo and Southern Pomo land in Sonoma County, California.

A yellow hued moon was no longer beautiful. Winds carrying dry leaves were a caution. Chimney smoke was not a sign of warmth in autumn, but a trigger. *Run*. Like so many fire survivors, I had trouble concentrating, I was on guard, easily started, drinking too much, driving too fast, not sleeping well, or not sleeping at all. I was irritable. I

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was on edge. I was surrounded by others suffering their own traumas, without direly needed skills and support. There are many ways people respond to traumatic experiences. Some people left California. Some people staved. Some people's fear of fire was so intense, they could no longer enjoy a hearth, no longer enjoy the soft light of candles. Some turn away from the source of trauma, others turn toward it.

As a researcher and educator, learning was a way forward-and I turned toward fire. I took classes in fire science at Santa Rosa Junior College, and completed the Volunteer Fire Academy. I trained in mindbody medicine (MBM) with the Sonoma County Resilience Collaborative, facilitating MBM groups for fire survivors, and integrating these practices with my curriculum in American Multicultural Studies and the Hutchins School of Liberal Studies at Sonoma State University.

Supporting my community was good for processing, understanding, and healing post-traumatic stress. Learning about fire and emergency response increased my knowledge, awareness, and prepared me for the future. Yet, neither of these paths could touch my grief: the feelings of loss and disconnection-not the loss of the structure, but the lost sense of safety in the place I called *home*.

The English-speaking world does not have words for "homeheart-environment relationships." Australian philosopher Glen Albrecht created the word solastalgia to describe the distress due to the destruction or loss of one's home environment (2005). This concept helps people to understand and express the connection between human animals with the environment, the negative and positive of the psycoterratic (human mental health and the earth).

In my class "Trauma and Healing in the Anthropocene" students regularly express anxiety, and share their struggles with insomnia and obsessive thinking related to the distress of environmental changes in our home environments-an experience Albretch calls ecoanxiety. Students shared their ecoanxiety about the places they were intimate with, as well as places across Turtle Island. When this anxiety becomes overwhelming, people cannot act; but this is not apathy—rather, this is ecoparalysis (2019).

The impacts of climate change and toxicity are bringing destruction that few may be able to escape—and so, the experience of solastalgia that Indigenous peoples experienced, and experience, with ongoing settler colonialism is brought to those who push and profit from hierarchical and extractive relationships with a "self-imposed solastalgia." Those who continue to invest and profit from industries, such as mining, oil, and gas, will experience a self-imposed solastalgia. They are imposing this loss upon themselves as they degrade the earth; they are making a choice to prioritize profit over the environment.

Not everyone has these choices: many poor people live in toxic communities-environments polluted with hazardous waste and toxic facilities (Taylor, 2014). We come to the experience in different ways, but soon, we may all know solastalgia. Albretch's concept (2019) is useful to identify the experience of ecological grief; it is helpful in seeing beyond symptoms, naming this critical experience of our relationship with our environments. He explains, "The existential and emplaced feelings of desolation and loss of solace are reinforced by powerlessness." But are we powerless?

Not long after my journey into the world of firefighting and resilience work, I was appointed as the director of Native American Studies at Sonoma State University, and I met Ron W. Goode, chairman of the North Fork Mono Tribe. Through research and on the ground experience with Chairman Goode, I began to learn about cultural burningabout the historically mutual relationship between the land, fire, and Indigenous peoples. And this is where solastalgia's dialectical concept of soliphilia is necessary, and beautifully generative. Cultural burning creates the opportunity for soliphilia, the love and responsibility between place and peoples—interconnection (Albrecht, 2019).

Cultural fires go by many names, have many objectives, and provide many sources of healing (Goode, Farish, & Christina, 2022; Hankins, 2013; Lake, 2007; Lake et al., 2017; Marks-Block, Lake, & Curran, 2019; Shebitz, 2005). At the Intertribal Cultural Burns on Southern Sierra Miwuk land hosted by Chairman Goode and Myra Kirk Goode, attendees learn about traditional ecological knowledge (TEK), about cultural practices, and using fire in a good way. Putting fire on the land means becoming attuned to the temperature, the shift in the winds, and the response of a branch waving with smoke.

We share food, stories, and laughter. We experience soliphilia in sharing culture and connection. Albretch (2019) explains "Soliphilia is the political affiliation or solidarity needed between us all to be responsible for a place, bioregion, planet and the unity of interrelated interests within it." Soliphilia cultivates interconnection. We nurture relationships with the land, with each other, and ourselves. At these cultural burns, I have found solace. A sense of agency and hope. Community with intention, and action. This is soliphilia.

In this article, we foreground the experiential richness of storytelling as we build upon previous publications in Ecopsychology, further supporting the importance of traditional perspectives in promoting ecological understandings of ourselves within and as part of our environments (Charles & Cajete, 2020; Long, Lake, Goode, & Burnette, 2020). Our study centers the critical intimate human connection with the natural environment that is required to begin thinking about psychology, and the specific psychological challenges of climate trauma, of living in the Anthropocene.

In Ceremonial Fire to Heal Solastalgia, Indigenous scientist Melinda Adams, San Carlos Apache Tribe, PhD section shares her work

on ceremonial fire, illuminating students' powerful reflections from their participation in cultural burns with Indigenous practitioners. These comments elucidate how ceremonial fires create opportunities for social, environmental, and cultural healing for young persons (Native and allied) that have potential implications across generations. In Spirituality and Traditional Ecological Knowledge, Ron W. Goode, Chairman of the North Fork Mono Tribe section, shares the cultural knowledge his ancestors guarded against colonization.

He explains the spirituality of culture and the possibilities of ceremonial fire to heal solastalgia. Opening and closing this article with my story as a fire survivor, researcher, and educator, in Introduction: Erica Tom, PhD section and Conclusion: Erica Tom, PhD section, I lay bare the significance of our home-heart-environment relationships, and encourage readers to explore the psycoterratic framework, do the work to understand the impacts of settler colonialism, and engage in cultural burning and community in a good way.

Weaving our varied and overlapping experiences and knowledge together, we illuminate the spirituality of TEK, the powerful Indigenous healing that is nourished by the constructive action of cultural burning, and the hope that grows as solastalgia transforms into soliphilia.

Wildly destructive fires, wind driven through unmanaged and untended lands, take lives and homes and the solace of familiar places. Ash blankets the remains, trauma takes hold, but even when the smoke clears and communities begin to heal, there is a loss beyond words. These wildfires reveal the ways many are lacking relationships with the land. Without good relationships with our environments, we worsen the health of land, plants, and animals. Seeing ourselves as separate and above from our environments, we abuse and neglect our environments.

Some wake from the nightmare of extractive accumulation to see they are hurting themselves. Sometimes people cannot recognize this until their home environments are destroyed. There is another way. What many Native traditional cultural knowledge bearers, scholars, and activists have always known (La Duke, 1999). Home environments are not just places we live. We are part of our environments. Not separate. When we are guided by TEK, we are caring for the earth, and we are caring for ourselves (Charles & Cajete, 2020). We are our environments.

Language shapes our worlds. Language can be embracing, connecting, bringing together. Many Indigenous languages have no word to separate humans from other animals—so we see ourselves as we are, as animals, as connected. Worlds are not organized in the linear frame of "progress." Worlds are circular, spherical, and connected across all relationships. In the North Fork Mono and N'dee Apache languages we are organized through our relationships with each other, to to-bopt and ni' (land), to kos and ko' (fire), to pi-a and tu' (water).

Language shapes our beliefs, our being, our worlds. And so language opens cultural burning ceremonies as we greet one another Mun-a-hu (Mono), Dago te' (Apache), Ayukîi (Karuk), Yá'át'ééh (Navajo), Haku (Chumash), Háu (Lakota), Osiyo (Cherokee), Hil-le hille (Chuckchansi), saying hello in the many languages present, and we sing our songs and blessings and listen to the language of the animals all around us. Chairman Goode draws on deep ancestral knowledge and creates new songs and new stories, "Land marries water, they bring fire. Solastalgia is itself a creation." And so too can we nurture the flame of soliphilia, activating hope and healing, and deepening our connectedness through cultural fire.

# Ceremonial Fire to Heal Solastalgia, Melinda Adams, San Carlos Apache Tribe, PhD

Interdisciplinary and multigenerational cultural fire

Within recent years, there has been a (re)awakening of TEK that has led to resurging Indigenous cultural fire practices. Since cultural fire goes by many names, it is important to acknowledge there is a spectrum of diversity among our tribal representation and differing practices and protocols we each have as cultural fire practitioners, learners, and carriers. As a San Carlos Apache environmental researcher, away from my homelands but united in community through cultural fire and environmental restoration, I have been able to work with several cultural fire practitioners throughout what is known as California.

As I reflect on the dozen or so Indigenous-led cultural burns that I have participated in and have led since 2019 (and the dozen or so prescribed burns I have completed before then) I am drawn to what Chairman Ron Goode, leader of the North Fork Mono terms "Ceremonial fire." Chairman shares, "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?" (Goode et al., 2022).

These questions present an opening for ceremonial fire participants to reflect on their reasons for joining the work and also to share their reflections with the host community, the environment, as well as our more than human kinship relationships. In doing so, cultural fire—or ceremonial burns—moves from the physical/environmental to the cultural/spiritual. Opening ceremonial fire in this way grounds people's intentions and allows for deeper connections-to place and among one another. Ceremonial fires are needed as young people brace for the onset of megafires now prevalent throughout California, compounded by the effects of climate change.

Albrecht (2005) can be interpreted as distress caused by environmental change. This concept has been linked to the recently formulated theory, climate anxiety—the uneasiness younger generations feel regarding change in climate and environmental conditions. Indigenous people have been confronting the impacts of anthropogenic climate change, an extension of colonization and genocide, for many generations (Gross, 2014). As such, it is imperative to consider our ways of coping, while California braces for impending climate change. Within our Native communities, lessons are widely shared through storytelling (Aldern & Goode, 2014; Archibald, 2008; Grande, San Pedro, & Windchief, 2015; Smith, 2012; Wilson, 2008).

These stories are typically passed intergenerationally, with a unified focus on providing a better future for our youth. Ceremonial burns present opportunities for lessons to be passed through storytelling while we learn together on the land. These connections to lands, waters, more than human relatives, and fire are most deeply felt in this way and allows young people to experience social, environmental, and cultural healing.

Therefore, ceremonial burns offer elements of coping and healing with a strong emphasis on training, teaching, and creating space for our younger generations to learn these ways. One example of healing solastalgia is an interdisciplinary and multigenerational cultural fire course offered at The University of California, Davis (UC Davis).

#### Reframing fire

In winter 2019–2022, a cultural fire course led by Professor Beth Rose Middleton Manning and her group of graduate students was held as part of the Native American Studies curriculum at UCD. The class serves as an experiential learning model for university students to learn directly from Indigenous cultural fire practitioners, traditional basket weavers, and community members including the benefits of Indigenous-led cultural fire. Classroom pedagogy includes students learning from a rotation of community experts, academics, practitioners, agency representatives, and policymakers centering their specialty areas within wildfire and cultural fire.

Integral to the course are the field trips to Indigenous peoples homelands (in what is now known as California), for students to engage and participate in ceremonial fire demonstrations. Fieldwork includes participation in the preparation of the burn sites, assistance during the burn day, and volunteer opportunities for returning to the lands postburn. While engaging in this curriculum, students also spend time with Native community members from Tribes who hold the burns as well as neighboring Tribes and peoples. Through this pedagogy, students are able to learn first hand the cultural signifi-

cance of these fires and the spiritual obligation numerous Indigenous peoples hold to tend and care for our ancestral lands.

These lessons can be passed in the form of sharing stories, songs, and personal experiences of the interconnection between lands, waters, and culture. One of the most powerful aspects of the class is that the students tend to come from many different backgrounds, they have had differing cultural experiences, and they will go on to occupy vastly different professional lives. Throughout my years assisting with the class, I have observed that each student has a unique and compelling reason for taking the course.

It is worthwhile to point out that several students in the class have been directly affected by wildfire (either through displacement or the loss of their family home), which is now prevalent throughout California. Moreover, there have been several Native American students who enroll in the course so that they can learn TEK directly from practitioners, and to gain hands-on learning experiences working "outdoors," on the land.

#### Social-cultural healing

To gauge the sociocultural and ecological aspects of cultural fire, semistructured surveys were administered before course content delivery. Over several years, students of the cultural fire course at UCD were surveyed ranging in disciplines from environmental policy and management, history, art, sustainable agriculture, and Native American Studies. The surveys were administered by course instructors, in-person before the course began, and at the end of the quarter long course. Questions included if they had participated in cultural burns or prescribed burning before, what they knew about Indigenous peoples of California, how they feel about fire, and how they feel about climate change.

Powerful comments from these young people point to the healing effects of cultural fire, not solely in an ecological sense, but also through a social and cultural context:

The most impactful thing I've learned has been the concept of fire being a living, spiritual thing that connects humans with the land and ecosystems. I feel this reframing of ecology and fire have shifted the way I think of myself in relation to the land. It has been a different way of motivating me in my goals to positively contribute to land management. Thinking in this way emphasizes responsibility and connectedness that, for me, has grounded my perspective and aspirations. (Anonymous student A).

We cannot fully heal without land return. We are the Land and the Land is Us. As an indigenous individual, I seem to have forgotten this from colonization in textbooks. But cultural

burns reminded me that our origins are from this land and it is our living and breathing relatives that we must care for. (Anonymous student B)

Overall, we can learn from California Native people about how to think about our role in the environment. A lot of western environmentalist thinking praises nature for being "pristine" and untouched, but Native people have been managing the landscape for centuries. I believe one of the most powerful things we can learn is how to think of ourselves as stewards to the land with fire being a tool/partner to help manage a landscape. (Anonymous student C)

These reflections show steps toward the rebuilding of these young people's relationship with the land and for our Native identified participants, a reconnection to their cultural identity. Hancock (1993) shares, "Indigenous peoples everywhere understand and experience themselves as intrinsically and spiritually related to the land and all living things" (p. 4). Furthermore, the term Indigenous identity, or Indigeneity, is "not just theorizations, discourse analysis, or a series of case studies, it is also lived, practiced, and relational experiences" (Hunt, 2014).

Alfred and Corntassel's (2005) proposed notions of being Indigenous suggest "thinking, speaking and acting with the conscious intent of regenerating one's indigeneity" and that "communities need to engage in the regeneration and decolonization processes" (p. 614). The reclamation of cultural identity is guided by Indigenous cultural practitioners sharing ceremonial fire instructions, by students engaging in stewardship training passed through generations and through intergenerational knowledge transfer, and by the retelling of Tribal stories as integral to the ceremonial fire experience.

## Defeating solastalgia

As an instructor of the cultural fire course and as a Native woman with a duality of Tribal identities, this way of learning on the land from Tribal leaders awakens my consciousness. The experience recalls land stewardship teachings my ancestors held and led with before colonization. It also allows me to (re)recognize that we always built coalitions with neighboring Tribes and shared lessons across geographies-spatially and temporally. My background in Tribal college education—as both student and professor—is drawn to the invaluable intertribal teachings ceremonial fire offers, which elucidates our knowledge systems and intelligence as Native peoples.

This in itself lends entries for healing-not just the landscapes and environment, but also the cultural disruptions my peoples historically and presently experience-and subsequent reclamation of our cultural identities. There are also sources of healing for our allies, those welcomed to ceremonial fire, to carry lessons forward. According to Albrect, this is a lived example of soliphilia, solidarity between individuals responsible for and to a place.

Our student responses from the cultural fire course demonstrates that allies/non-Native participants also exhibit patterns of healing: through repairing their interpersonal relationship with fire, through their close connection to lands and waters, and as outlets to channel feelings of climate anxiety. Indeed, young persons' engagement with ceremonial burns; the hard work of preparing, executing, and tending to these fires; and the open approach to learning from cultural practitioners and community members, all provide steps toward addressing solastalgia.

Overall, ceremonial fire gatherings reveal themes of people's connection to the land; reclamation of Indigenous identities; and positive physical, mental, and cultural experiences. Albrecht et al. (2007) suggest "the defeat of solastalgia will require that all of our emotional, intellectual, and practical efforts be redirected towards healing the rift that has occurred between ecosystem and human health, both broadly defined." Who better to lead these efforts than Indigenous peoples who have survived historic climate change and are reclaiming land stewardship practices that, since time immemorial, have balanced our social, physical, emotional, and spiritual wellbeing?

Perhaps an entry point to healing solastalgia is the continuance and renewal of ceremonial fire in a good way, through good practices. The sharing of our place-based ways of knowing-and-being is reflected in moments of reclaiming these land stewardship practices. Finally, ceremonial fire grounds people's intentions and allows for deeper connections-to lands, to cultures, and to one another. Ceremonial fires provide opportunities for social, environmental, and cultural healing among young persons (Native and allied), centering cures to be passed on for the next seven generations.

# Spirituality and Traditional Ecological Knowledge, Ron W. Goode, Chairman of the **North Fork Mono Tribe**

The spirituality of culture

"Cultural Burning is Ceremonial Fire," stated Keith Turner, Mono-Dumna Spiritual Leader, while conducting the blessing at a cultural burn gathering in Mariposa, CA. When we host a cultural burn, we always offer tobacco or sage; we ask creator for his blessings on mother earth and over us as we practice our traditions of applying fire to the land. We speak of restoring the resources, replacing the dead and dying shrubbery of our cultural resources, replacing it-giving it new life.

We sing our songs, the men, women, young, and elders from all tribes in attendance. Sometimes our songs are flat, we stammer, and our songs do not carry. Sometimes the women carry better than the men. Sometimes it takes two or three verses before the song carries, then, other times the clapper and or the song carries immediately.

Why? Why would there be such a variable out on the land? The answer is simple but complex. The land is hungry, hungry for the return of traditions and traditional ways; hungry for "proper fire" back on the land, hungry for the spirituality. The land, the spirits of the land have been waiting for decades, for

"Tq 4-=," for this "ceremonial fire." It does not matter whether you are Indian, Native American, or spiritual, the spirits of the land still question, "Who are you?" "Why are you here? What do you want or want to do here?" These "old ones" question because all those who have come before us, taking, taking, and taking, never giving back, never offering anything for what they want.

There are times when we are at a meadow with all our helpers and wonderful volunteers as well as agency folks, and the question arises, "Where are the Birds?" "I don't hear the birds, I don't see any butterflies or other insects, reptiles or animals." "It is so quiet, where is everyone?" My response is, "Wait!" "Wait for the song, after two or three verses the birds will be singing with us, the dragonflies and bees, butterflies, ants, and spiders will all come out. They too have been waiting, waiting for the blessing and the song" (Goode, 2020).

When we speak of new life—restoring new life, restoring is rejuvenation. The plant/shrub is not dead because the root system is still alive. The reason for restoring is that the resource is no longer producing a food product or a cultural material used for basketry or medicine. Therefore, pruning and applying fire allow the return of fresh or renewed growth to the resources, hence the concept of restoring cultural practices and traditions. Our experience shows that the application of cultural fire also brings back other resources long since dormant, such as medicinal plants and flowers.

On recent burns, where we burned the sour berry (three-leaf sumac), when new shoots came up, Native tobacco also came up with it. The tobacco seeds were lying there waiting for fire. Likewise, when we burned the Redbud, the miniature fern came up with it, as did the elderberry—everything lying in-wait for the ceremonial fire. Therefore, "ceremonial fire" is the coating of protection to cultural burning, resource restoration, and land rejuvenation.

Understanding the spirituality of culture is simple but complex. Culture is the traditions, practices, life-ways, and beliefs of a people. Culture is to "cultivate" so says my good friend Dr. Jared Aldern. Cultivation is not just agricultural practices but in fact cultivating one's life ways is very important toward the sustainability of people's

existence and their belief system. Within Indigenous cultures, a reference is made to their generational TEK as well as their cultural wisdom. In terms of cultivating, in order for traditions and knowledge to be carried forth over the millennium, old ways, ancient belief concepts, and traditional cultural practices (TCPs) had to integrate with new ways of planting ideas, creativity, and cultural practices (Goode, 2020).

When we approach the manzanita, we do not see it as a fire hazard as the forester sees it, but again for all its cultural and medicinal purposes. In the case of all our resources, we first look at the health of the plant, shrub or tree. Is it healthy, dying, diseased, or parasitic, needing tending or just a good manicure?

The manzanita, in the Nium language is known as Aposo-wabi. Poso means my friend or cousin (aka relative). What makes the manzanita our friend, our relative? The berry (berries) when dried is used for a fiber, and when soaked and allowed to ferment, it then becomes a medicinal cleanser, similar to Metamucil or bran. If the bark is curling then we scrape that off and save it, to be used on our skin when one has contacted poison oak (quite often the manzanita and poison oak grow nearby each other). We look for prongs that are good for slingshots, and "po-do's" (canes/walking sticks), for our elders.

Like the forester who views the manzanita as a hot burning shrub, we see the wood as a source for heating soapstone used to cook the acorn, used because the manzanita burns the hottest of all wood. In the past centuries, our tool makers made spoons and other utensils out of the wood, today our sculptors make beautiful art objects out of it.

A "poso," a friend; why a friend? It is in the interconnectedness, what makes us call someone a friend? Maybe that one person we are always delighted to see. The fond memories we have shared over the years. We call them "friend" because when we were ill our friend was the one who checked in on us, brought some soup and crackers or maybe the one who always has a special gift for us. Maybe it is just the one who you hang out with, go hunting with, or go shopping with. All in all, after all the trials and tribulations, hurdles, and challenges, this one friend is the one who is there for you waiting for you on the other side.

It is that interrelationship that we have shared that causes delight when we see our friend again. So, yes, our "poso" the manzanita has always been there for us. We remember our mother making acorn, asking us to put more manzanita wood on the fire, to heat up the soapstone, to make it nice and hot, so as to quickly be able to cook the acorn. What you remember is the acorn bubbling and the forever scent that remains with you today. Or, just maybe, it was that "cane" the

manzanita gifted to you so you could take to "uncle" and you remember the smile uncle had when he saw you coming with that manzanita cane and how he got up, trying out his new cane, nodding his head in approval (Goode, 2020).

#### Cultural burning

Cultural burning, like prescribed fire, is also done with a plan and with specific goals. Burn plans and burn strategies are in place before any burn. There are philosophical differences between prescribed burning and cultural burning. The size of the fires is also an important difference. Cultural burning practices continue after the burn, where ash is mixed with topsoil to create nutrients. The nutrients mimic ancestral midden soil layers or ancestral fires. In many cases, when prescribed burning is carried out, the intent of the burn and the size of piles involved are to see that there is no return of understory or floor coverage.

The goal of cultural resource burning is just the opposite; here the intent is to have an immediate return of resources, measured in days, weeks, or a month or two. Cultural burning is not intended to stop a wildfire; it creates a defined place or space in which to control a wildfire, and it becomes a defensible landscape (Goode et al., 2022).

Cultural burning is about food sovereignty, creating an abundance of healthy nutritious Native foods. Cultural burning enhances resources, ensuring that cultural resources are healthy for basket makers, and it rejuvenates medicinal plants for humans, animals, and insects. This is a restoration of resources for traditional Indigenous practices and for generational TEK that has been passed down from ancestral times, allowing for a continuum of sustainable culture for future generations of Indigenous practitioners to come.

Cultural burning has three major effects: (1) ecological, as has been explained; (2) cultural, which has also been touched upon; and (3) social. Like the effects of "solastalgia," there is immense gratitude after a good burn. There is a feeling of something well done, but also something that generates its own power to escalate its own journey, and you were a part of it (Goode et al., 2022).

Elderly and youthful participants come from many universities, many countries, many states, many tribes, and numerous agencies and state and national organizations. Many come for the first time, apprehensive, nervous, confronting their anxieties about fire, about COVID-19, about gatherings, about not being Indian enough, not being Indian at all. They come with a friend, with friends, with a group, as an individual, they leave as a community. They come with a guarded persona, they experience openness, shared feelings, free invitation, exploring, personal teaching, giving of themselves, giving back to the land, back to the resources, back to fire.

Some come having been face to face with fire, having lost all they had, nowhere to run, nowhere to hide, nowhere to turn to, but they come anyway, not knowing what lies ahead, where is the safety net. No Net! But the assurance is still there, still given, something spiritual gently holding their hand, gently leading them and guiding them.

Fire is dangerous, fire is not to be played with, fire is to be respected, understood, not challenged-welcomed. Welcomed into your heart, learn how fire is a tool, how fire is "good fire." How proper fire can be applied in such a small package yet create enormous deeds to the land, resources, and the elements.

How "fire camp" is always a-buzz, loud chatter, laughter, good stories, great food, fantastic sharing, working together to accomplish great change, sweating together, swimming together, burning together, and huddling together around the cool night campfires. They do not want to leave, stay as long as they can, ask when is the next one, please make sure I am on the list, how can we help sustain the practice, and sustain the culture? They not only give of themselves, they leave donations, they bring gifts, they send gifts, they send heartfelt beautiful cards saying thank you, thank you for the healing, and thanks for the experience of the lifetime. Some say they chattered and sang all the way home; the excitement of the communal event healed the "solastalgia."

#### Traditional ecological knowledge to traditional cultural practice

Tribal-TEK is based on four factors: philosophy, practice, spirituality, and knowledge. Are you in the "know?" How do you know without scientific evidence or data? For the Native American, to know is not to believe it is so but know without compromise. There is no theory. There is no science report, no scientific study, and no scientific data. But then again, to be in the know, one is repeating hundreds if not thousands of years of information passed down many generations through tribal observation science (Goode et al., 2018).

We make offerings to clear our way, to clear our mind, and to clear our heart. We talk to the rocks when we enter their domain, give thanks to the plants and trees for their offerings of the clean air we breathe, of sustenance and medicine. When you acknowledge the keepers of the land, spirits of the land, the elements, the forest, and the "old ones," they will in turn communicate with you. The ability to communicate ecologically is not just a Native or Indigenous relationship but extends to all people, let alone at least to those who open themselves up to the spirituality (Goode et al., 2018).

TEK does not exist in-whole without the TCP. One can have the knowledge, passed down by one's elders, but without the practical hands-on practice and experience there is a gap, a gap of application. To see the results of one's actions creates a better understanding of what the knowledge is all about. Having the practitioner and elder

basket maker, medicine collector, food sovereignty harvester describe what they want from the fire, from the burn on the resources, allows the burner to better understand the cultural aspect of the culture, the practice of the knowledge.

In the past cultural burns, the effects of cultural sustainability are evident when more and more elders and practitioners are coming to the burns. We started with one or two basket makers, harvesters, and now numerous tribes are harvesting berries, basketry sticks, medicinal plants, Elderberry handclappers, and other cultural resources. Now, there are two canopies of cultural bearers, not one but three pick-up truck loads of basket makers riding around harvesting during the burns. All giggling, laughing, talking, carrying-on, singing, telling stories, and speaking their languages.

The century and half of suppression, oppression, repression, violent threats, governmental policies, assimilation, being forced removed, forced away from their resources, non-Native education, and loss of their generational education on the land, has created "solastalgia" for them and their culture.

Now, the "ecotherapy" of reconnecting to the land, fire, resources, and water opens the door for an inner healing as well as an outward healing and display of comfort instead of anxiety. The "safety-net" is out, no one shooting at you for digging roots in the creek or river, no one chasing you off—threatening you because you are gathering precious basketry sticks to make a basket for one of your young family members, no one trying to arrest you for gathering Native foods such as berries and acorn.

Here the fires are lit! Here the smoke is shared with the habitat and neighbors. Here, we are smiling, because it is our tribal leaders lighting the fires, praying over the fires, our elders and children are with us, our educational community is with us as is our State and Federal Agencies. Here, we feel the interconnectedness and the "comfort" of solastalgia.

## Conclusion: Erica Tom, PhD

In the winter of 2017, I was finding rhythm and calm on my morning run around town. And then the sun rose tinted orange in the awakening sky. And then the smell of smoke hung in the foggy morning air. And then the sound of fire engines rang through it all. And my heart raced, and my breath stuck, and I sprinted back to the house to wake my friends in the fear of another fire though it was not—it was a beautiful sunrise, a hearth warming a fire, and a small car accident.

My experience is not unique. Although the catastrophic wildfires are part of the cause, this mental distress is also caused by a lack of relationship with fire itself: a significant lack of understanding of my environment. The color of the sky. The smell of smoke. This infor-

mation was filtered through my reactive state, and also my limited knowledge. Good fire creates a different lens through which to see our environment. Learning to put good fire on the land means becoming attuned to temperature, wind, humidity, and deepening our relationship with the seasons. In this knowledge, I no longer panic at the smell of smoke in winter—pausing to notice the moisture in the ground, to notice whether there is wind, to notice and in the noticing being in relation to my environment.

We share our collective work on the land, our observations, and wisdom with hope that the reader will find inspiration. Be inspired to learn more, and to join in this good work. Cultural burn participants may experience individual healing through learning about ceremonial fire, connecting with other individuals, themselves, and the land. Ceremonial fire also has the potential to change culture and society in important ways. The science and cultural values of TEK and TCP have the potential to inspire soliphilia at the societal level.

At cultural burns, individuals from state and federal agencies are beginning to learn: to recognize and acknowledge our interconnectedness with the natural world, to see the goodness in fire, to see water and land as beings, as relatives to care for in good relationships. Through recentering what Chairman Goode refers to as TCP, and listening to our Indigenous elders and practitioners, change is possible. We come together in writing to share our collective witnessing: the power of cultural fire to heal solastalgia, and awaken soliphilia.

# **Authors' Contributions**

All authors contributed equally to this study.

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