



KEEPERS OF THE FLAME

WINTER 2020 REPORT

Native American cultural burning in California



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EXECUTIVE SUMMARY

Building upon the initial success of the “Keepers of the Flame” course in 2019, the project expanded in 2020 to deliver further transformative experiential learning for students, contribute tangible community benefits and lay the groundwork for long-term collaborations between UC Davis and California Indian tribes. Fifteen enrolled students and several auditors learned from cultural practitioners about the traditional Native American practice of burning grasslands and forests for maintaining the health and balance of the ecosystem. Field trips and two public “Indigenous Fire Workshops” brought together students, community members and cultural experts to experience the deliberate use of fire to regenerate basketry and food plants, a keystone practice that maintains tribal peoples’ obligation to care for the land and perpetuates the vitality of their culture.

INTRODUCTION

“You take care of the fire, the fire takes care of the land, and the land takes care of you”

–Danny Manning (Maidu), Asst. Fire Chief, Greenville Rancheria

The future is full of challenges, including climate change, the loss of biological and cultural diversity, and declining rural economies. Fire is at the center of all of these concerns in California, calling us to reevaluate our relationship with it. While the limits of fighting an all-out, century-long war on fire are becoming clear, better models are slow to implement. California Indian tribes, with their long-lasting ancestral relationship with fire, are leaders in fire management for improved social, ecological, and cultural outcomes. For thousands of years, Tribal practitioners have burnt their landscapes in skillful ways to create patchy habitats suitable for diverse species of plants and animals, increase water runoff into streams, recycle nutrients, and promote the growth of understory plants. Unlike fire suppression, this approach emphasizes peoples’ connection to the land, responsibility to care for all species, and respect for fire as a life-sustaining process. Time is short to address contemporary challenges, but all Californians can begin by listening to the state’s original land managers in order to move together towards sustainable rural economies, resilient forests, and thriving social-ecological systems.

The Keepers of the Flame project aims to connect students, community-members, researchers, policymakers and Indigenous fire practitioners to learn about cultural burning and discuss ways to support its revitalization. The project uses a community-based teaching approach, meant to demonstrate socially responsible and respectful ways for university instructors, students and researchers to interact with California Indian nations, communities, and individuals. Two Indigenous Fire Workshops were organized in collaboration with cultural burning practitioners to highlight the benefits of this practice, create opportunities for networking and mentorship among cultural practitioners, and educate key regulators and policymakers. The students joined community members and leaders in supporting Indigenous-led burn planning and implementation, learning through personal interaction with community members, videoconferences with practitioners from around the state, and direct experience of cultural burns. Thanks to the generosity of the project’s Indigenous partners sharing their time, knowledge and cultural sites, the ongoing Keepers of the Flame project has left workshop participants and students with deep and transformative insights into living with fire in California.

Keepers of the Flame course learning objectives:

1. Understand the role of fire in California Native cultures and in the ecology of California's ecosystems;
2. Compare and contrast land stewardship ethics from Native American and mainstream Anglo-American perspectives, including synergies and conflicts;
3. Describe the basic social and policy context for cultural burning, including Tribal-federal agency relationships, local, state and federal regulations restricting fire use, and advocacy efforts to make local, regional and national change;
4. Explore how to build reciprocal and collaborative cross-cultural relationships;
5. Formulate a personal relationship to fire as an essential, living element of California's ecosystems and communities.

Keepers of the Flame course guiding principles:

1. Experiential learning: students learned about fire through active participation in cultural burns;
2. Recognition of expertise: cultural practitioners are the experts; the focus of the class was therefore to enable them to directly engage the students;
3. Reciprocity: the generosity of cultural experts sharing their knowledge and time must be recognized, for example by providing honoraria, assisting with planning and manual labor, and assisting with educating a broader audience about cultural needs and perspectives, etc.



FIGURE 1: DEMONSTRATION OF A DEERGRASS BURN AT THE TENDING AND GATHERING GARDEN.

COURSE OVERVIEW

Speakers

Acknowledging Tribal expertise is as important when crafting fire management policies and developing burn plans as it is when teaching classes. To this end, Tribal fire practitioners were central in educating students about their culture and the issues they face. Exceedingly few students at UC Davis are exposed to Indigenous perspectives on land management, fire, and sustainability, and many remarked that this cross-cultural dialogue transformed the way they thought about issues covered in their other courses. We are grateful to our guest speakers:

- **Danny Manning** (Maidu, Assistant Fire Chief, Greenville Rancheria) talked about his experience working for the Greenville Rancheria fire department, and the work the tribe does in collaboration with the US Forest Service to maintain cultural sites and gathering areas. Danny explained how fires are planned and implemented; and later in the quarter he trained the students in basic fire techniques at the two Indigenous Fire Workshops. He showed the students the difference in quality between a cradleboard made from burnt and unburnt materials and demonstrated the use of traditional gambling sticks, illustrating that without fire there would be no food, no tools, no gambling, no baskets, no family, no culture.
- **Valentin Lopez** (Chairman, Amah Mutsun Tribal Band) shared the work of the Amah Mutsun Land Trust and Tribal land stewards. Val described how meaningful it is for Tribal youth to connect to the land and to their ancestral practices, particularly as a way to heal from intergenerational trauma. The mission period was particularly destructive for the Amah Mutsun, which is why Val works to educate people about this history and to fight its misguided glorification. Val also brought up a discussion point around the Governor's "Truth and Healing" policy: what does it really mean and is it really for the benefit of Indigenous people? How could a "true" Truth and Healing process be incorporated in state fire management policies?
- **Dr. Frank K. Lake** (Karuk/Yurok descendant, US Forest Service researcher) discussed his work as a leader in research cross-walking Indigenous and Western sciences for land management. Students heard about how collaborative research can unlock unique insights into fire ecology, such as the relationship between smoke and lower river temperatures suitable for salmon, and how agency-Tribal agreements are helping these fire-dependent communities restore their landscapes and livelihoods.
- **Dr. Mary Huffman** (The Nature Conservancy, Indigenous Peoples Burning Network) built on her experience working with Indigenous practitioners to provide a theoretical framework for understanding how cultural burning is distinct from Western prescribed burning practices, emphasizing in particular the spiritual dimensions of this practice. She shared the Indigenous Peoples Burning Network's work towards revitalizing traditional burning.
- **Margo Robbins** (Yurok Tribe, Cultural Fire Management Council, and Indigenous Peoples' Burning Network) described her community's efforts to bring back cultural burning through the Prescribed Fire Training Exchange (TREX) program, which offer training opportunities for firefighters while deploying prescribed fires. These efforts have made it possible for gatherers to access plentiful basketry materials, and to pass on this traditional knowledge through intergenerational burns. Margo described implementing regular burns with her family, including her daughter and granddaughter.

In addition, the students had the opportunity to be immersed in an ecosystem actively managed using Indigenous knowledge and approaches when they visited Chico State University's Big Chico Creek Ecological Reserve with **Dr. Don Hankins** (Plains Miwoko, Osage). Don has restored the reserve's oak woodlands using his extensive fire knowledge gained through his traditional upbringing, studies and travels to learn from Indigenous fire practitioners worldwide. His work illustrates how Indigenous burning can be deployed on a landscape scale, and the contributions it can make to communities, fire management agencies, and ecosystems. He discussed his close work with the local Mechoopda

tribe, support for intertribal knowledge building and his contributions to state and national fire policy with the students and with visiting tribal cultural practitioners including Danny Manning.

Because supporting cultural burning entails educating the public, decision-makers and managers, the students were provided training in media relations and communication. **Kat Kerlin** of the UC Davis Office of Strategic Communications gave a workshop on crafting a good message, which the students used to develop their final project and interact with representatives of the media at the Indigenous Fire Workshops, including National Public Radio.

Indigenous Fire Workshops

The Keepers of the Flame project seeks not only to provide experiential learning opportunities for the students, but also to demonstrate a model of working with Indigenous communities based on reciprocity and respect. To this end, the class contributes to hosting and participating in “Indigenous Fire Workshops” to provide a chance for diverse cultural fire practitioners to exchange knowledge and share it with Native community members, the public, agencies, and policymakers. Tangible outcomes generated for the community included increased capacity to plan and implement burns, mentorship and networking opportunities among practitioners, and connections to regulators and agency representatives. Meanwhile, these outcomes themselves presented learning opportunities for the students exposed to real-world problem-solving, relationship-building, and intercultural dialogue. This community-based teaching model connected the practitioners, researchers, community leaders and students in a reciprocal exchange leading to positive outcomes for all involved.

Indigenous Fire Workshop 1: Tending and Gathering Garden, Woodland, CA (Wintun lands)

The Tending and Gathering Garden at the Cache Creek Nature Preserve (CCNP) near Woodland, CA has a long history of involvement with UC Davis students. Founded in 2001 as a participatory action research project involving local basketweavers and a UC Davis graduate student, it has grown into a hub for education about Indigenous land management practices and a vital space for gathering culturally important plants such as redbud, deergrass, and soaproot. In 2019, the Keepers of the Flame project helped the preserve and cultural practitioners to bring back the use of fire to keep these resources healthy. Since then, we have worked to solidify a relationship with the Yolo-Solano Air Quality Management District which issues permits for burns and worked with CCNP staff to help formulate a long-term vision for the regular use of cultural burns. Zack Emerson, manager of the Tending and Gathering Garden, is a UC Davis alum who took the Keepers of the Flame course in 2019, and now is in charge of implementing the vision of the stewardship committee led by cultural practitioners.

In January, the students made three visits to the site: the first to learn how to prepare it to receive a burn and to meet Diana Almendariz (Patwin/Maidu), one of the primary caretakers; the second for the actual workshop; and the last to “clean up”, including planting native grasses and flowers, raking in the ash, and cutting burnt sticks. As we would hear from Ron Goode subsequently, the difference between an agency prescribed burn and a cultural burn is that cultural practitioners don’t burn and leave; they return to the site again and again. We wanted the students to learn this important aspect of cultural burning, which is based on a long-term relationship to fire and to the land.

The Indigenous Fire Workshop at the Tending and Gathering Garden drew 80 participants, including local residents, members of several regional tribes, the local fire department and two tribal fire departments, and fire and conservation professionals. Diana explained the reasons for burning, and why this is such an important practice. The fire was started by elder and basketweaver Ardith Read (Mewuk). The conditions were mild, and the site afforded

many opportunities to carry out small burns, which enabled the participants to take part in spreading the low flames among the deergrass bunches. Being able to safely engage in this collective effort to regenerate a cultural resource and participate in a key ecological process was eye-opening for students accustomed to seeing images of out-of-control fires.



FIGURE 2: TENDING AND GATHERING GARDEN INDIGENOUS FIRE WORKSHOP

The collaboration between UC Davis and the TGG, begun two decades ago, continues to deepen and its effects are rippling out through the community. After this first Indigenous Fire Workshop, local residents and ranchers were inspired to start a Prescribed Burn Association, a landowner cooperative for neighbors to help each other carry out prescribed burns. Meanwhile, members of the Shingle Springs Band of Miwok were so inspired by the Indigenous-led model of the workshop that they have reached out to discuss similar collaborations in their community. As we had hoped, the Keepers of the Flame project and Indigenous Fire Workshops has proven to be a catalyst for revitalizing cultural burning practices, building networks among practitioners, and deepening links between the university and the community.

Indigenous Fire Workshop 2: Jack Kirk Estate, Mariposa, CA (Miwok lands)



FIGURE 3: STUDENTS AND COMMUNITY MEMBERS JOIN RON GOODE (NORTH FORK MONO), DUNLAP MONO WEAVERS GLADYS MCKINNEY, JULIE TEX, AND FLORENCE DICK, AND FIRE PRACTITIONERS INCLUDING DIRK CHARLEY (MONO) TO LEARN ABOUT CULTURAL BURNING AND STEWARDSHIP OF BASKETRY PLANTS AT THE INDIGENOUS FIRE WORKSHOP IN MARIPOSA, CA.

Over Presidents' Day weekend, over 100 attendees gathered to learn about cultural burning from the Honorable Ron Goode, chairman of the North Fork Mono Tribe. The site of an 8,000+ year-old Miwok village, the Jack Kirk Estate has been tended and used for gathering by cultural practitioners from a wide area. Ron's family's care, including burning, has ensured an abundant supply of redbud and sourberry shoots for basketweavers, as well as sourberries, manzanita berries, acorns and other foods. This was the third year that UC Davis students have

participated in cultural burns there, and the shoots produced from those labors were being gathered by Mono weavers. As they did so, they explained their craft to the students and shared stories and life lessons. The supple, straight shoots they collected would be used in basketry classes in their community, perpetuating their culture and illustrating the concept of caring for the land so that the land will care for the people.

In addition to continuing to regenerate areas of sourberry and redbud, Ron's objective on this occasion was also to burn a 5-acre meadow. Experienced tribal and agency firefighters, including Danny Manning (Greenville Rancheria), Dirk Charley (Dunlap Mono) and Len Nielsen (CalFire) helped plan and execute this burn. They provided basic training to the students and discussed the blending of Indigenous and Western methods. For most students this was their first experience with a burn covering a larger area; they eagerly picked up the instructions they were given while recollecting Diana Almendariz' instructions to pay attention to all of their senses including the sound of the fire and the smell of the smoke. The resulting burn provided a vision of a healthier California, where people, land and fire work together.

Also present at this event were Jennifer Montgomery, director of the governor-appointed Forest Management Task Force; Erin Myers-Madeira, head of The Nature Conservancy's Global Indigenous Conservation program, as well as representatives from CalFire, the US Forest Service, non-profit organizations, and researchers, historians and archeologists from universities including UC Berkeley, Middlebury College, California State University, Sonoma, University of Arizona, and University of Minnesota. We helped to convene this diverse group to discuss the state of cultural burning and the changes needed to ensure the revitalization of this practice. We also wanted to set the stage for the students to be able to talk to people in different fields and professions, and to witness the complexity of this issue socially, politically, and ecologically. Learning from Ron and the other elders, all present could feel the urgency to work towards a healthier relationship with fire, based on respect and knowledge rather than fear.



FIGURE 4: DANNY MANNING (MAIDU/GREENVILLE RANCHERIA) LEADS THE STUDENTS IN A TRADITIONAL GAMBLING GAME.

Assignments and Student Feedback

Throughout the quarter, the students were asked to reflect upon their experiences, what they heard from guest speakers and the readings. Their writings reflected a growing understanding of fire as a positive, generative force; concern with divergent media the media coverage of fire; observations of the healing power of cultural and prescribed fire; and frustration with the lack of representation of Indigenous perspectives in most of their classes. Throughout the quarter, the students worked in groups to document the workshops and created a final 5-minute video about cultural burning. The films were shared with community members for use in education and outreach.

The class transformed students' view of their place in the natural world, which can be seen in their feedback included: *"the class made me rethink my entire notion of environmental health"; "I'm amazed with how connected I felt with the Land"; "this reframing of ecology and fire have shifted the way I think of myself in relation to the land [...]. Thinking in this way emphasizes responsibility and connectedness that, for me, has grounded my perspective and aspirations."* Further, non-Indigenous students remarked on how working with Native practitioners and communities helped them to deepen their cross-cultural competency: *[the most impactful thing was] how welcoming this community is. I was definitely afraid to take this class as a white person because I always think that I have no place being in non-white conversations because I would be imposing or not respectful or something, but this made me feel like I could contribute something like working in burning or just transferring information to my friends about the challenges discussed in this class. I think I'm more comfortable addressing things that are uncomfortable"*. Lastly, students shared that this class made a unique contribution to their education and they expressed strong support for it to continue in future years: *"this course is so deeply important and relevant to all types of educational pathways. I almost wish it was a requirement for everyone to take"; "this class has been the most impactful on my education here at Davis"*.

Community Impact

The Keepers of the Flame project was designed to provide unique, real-world educational opportunities for students, create tangible benefits for the community, and increase the visibility of Indigenous perspectives in land management and policymaking. We took several steps to ensure that learning outcomes generated by these collaborations were matched by community benefits:

1. Course instructors worked with community members to plan and prepare for burns, including supporting the Cache Creek Conservancy personnel in obtaining required smoke permits;
2. Funding was provided through the Southwest Climate Adaptation Science Center for the Indigenous Fire Workshops and workshop presenters;
3. Students and instructors provided labor during the burns to ensure that the objectives of the practitioners were met;
4. Outreach to the public and selected agency and government representatives helped spread awareness of the importance of cultural burning;
5. Outreach to diverse Tribal individuals and groups promoted opportunities for networking and mentorship, including intergenerational learning;
6. The videos created by students for their final projects were provided to the community for use in reaching a broader audience.



FIGURE 5: KEEPERS OF THE FLAME STUDENTS TAKE INSTRUCTIONS FROM DIANA ALMENDARIZ TO BURN DEERGRASS, AN IMPORTANT BASKETRY PLANT

CONCLUSION

Indigenous burning practices have shaped California for millennia, and they continue to support tribal traditions and healthy communities today. They are also increasingly influencing state fire management policy, as well as giving non-Native fire scientists, managers and the public insights into what a sustainable relationship with fire can look like. Recognizing cultural burning's central role in solving California's fire crisis, the Keepers of the Flame project brought together tribal practitioners, students, researchers, agency and NGO representatives and the public to support this ongoing conversation.

To better achieve this goal, we moved this year from a course focused on student learning to a community-based education, outreach and research project dedicated to providing tangible community outcomes. Working with The SW Climate Adaptation Science Center and Tribal partners, we organized two Indigenous Fire Workshops with the goal of showcasing the benefits of cultural burning to the broader community, supporting the sharing of knowledge and experience among practitioners, and deepening UC Davis' commitment to better serving Native students and communities. These events have led to increased capacity by Tribal practitioners and deeper relationships between practitioners, community leaders, and the university.

This community-oriented approach also served to demonstrate a model of collaboration based on reciprocity and respect for Indigenous knowledge. Many students reported having little to no exposure to Indigenous perspectives throughout their courses, and several were initially unsure about how to respectfully engage with Native communities. By taking this course, they were not merely exposed to Indigenous perspectives; they were deeply involved in co-creating a protocol for ethical cross-cultural dialogue. While universities and the state struggle with implementing Gov. Gavin Newsom's "Truth and Healing" policy, we sought to go beyond words to contribute practically to improving UC Davis' relationship with California Indian Tribes.



FIGURE 6: EVENING APPROACHES AFTER A DAY OF CULTURAL BURNING WITH RON GOODE

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