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Dear Friends,

We're very happy to announce that on January 12th, former President Barack Obama designated the Cotoni-Coast Dairies as a National Monument. The 5,800 acre Cotoni-Coast Dairies is in Santa Cruz County and extends from the steep slopes of the Santa Cruz Mountains to marine terraces overlooking the Pacific Ocean. This National Monument encompasses ancient archaeological sites, riparian and wetland habitats, coastal prairies, and woodlands that include stands of coast redwood. Our Amah Mutsun Tribe and Land Trust supported this effort and actively worked on the campaign to achieve this designation.

Our creation story tells us that Creator very specifically selected our people to live on these lands. Creator then gave us the responsibility to take care of these lands and all living things. Creator has never rescinded this sacred obligation and that is why in 2016 our Tribe signed a Memorandum of Understanding (MOU) with the Bureau of Land Management who are the property owners. This MOU provides assurances to our Tribe that we can continue our traditional ceremonies and cultural practices on these lands as well as have access to steward, tend, and gather the native plants that are so important to our culture. Our Tribe believes that National Monument status will allow our people access to protect these lands until the last sunrise; this is why we actively supported this campaign.
In our last Newsletter we discussed how our Tribe is opposing the sand and gravel mining proposal four miles south of Gilroy. The site of this proposal is known to our people as Juristac and is now referred to as Sargent Ranch. Juristac translates to “Place of the Big Head” and is the home of our Spiritual Leader, Kuksui. Juristac was the location of many of our sacred ceremonies. Juristac is also the location of four known village sites; a river and many springs; an abundance of wildlife; and for thousands of years and hundreds of generations, many of our ancestors were buried at this location. In 1862 there was a smallpox epidemic, and over 300 of our ancestors were buried at this location.

As our Tribe works to oppose this effort we recognize the immense injustice of being a federally unrecognized tribe. There are laws that protect the cultural sites and resources of federally recognized tribes that do not extend to unrecognized tribes. At the same time, there are laws that exclude Native Americans from the protections that apply to non-natives. For example, when a construction project uncovers the remains of three or more non-native individuals, the site is recognized as a burial ground and construction must be stopped and left undisturbed. However, if the remains are Native American the remains can be removed and reburied elsewhere. To the Amah Mutsun, the disturbance of the remains of our ancestors is the most serious violation of our spiritual belief.

A few years back I participated in the reburial of 188 ancestors who were removed so a Safeway Supermarket could be built. If the remains were not Native American the removal of these remains could not have happened. We will continue to oppose the approval of the mining proposal. We believe that if enough people contact Santa Clara County Planning Department and County Board of Supervisors and tell them that they must respect Native American culture, religion, and environments that they will not approve the proposed mining on Juristac.

In 1885 the Santa Cruz Mission was demolished to make room for a larger church. The remains of over 2,400 bodies were dug up and reburied in a very small, unmarked mass grave. Over 2,000 of the remains were of our Native Ancestors of which over one half were children. On December 12th, 2016 a monument was unveiled to acknowledge and give honor to those buried in the mass grave. We are thankful to Jim Thoits, Bill Simpkins, and Norm Poitevan for their generous donation that made this monument possible. Our Tribe will hold a ceremony for all who are buried in the mass grave during the summer solstice. We will invite the public.
Our Tribe continues to support and pray for the efforts of the Standing Rock Sioux Tribe as they endeavor to protect water and sacred sites. We hope you will join us in our support of the Standing Rock Sioux Tribe.

Ho!
It has been a busy four months since I first began work as Executive Director in October. Since that time, much of my attention and energy has been focused on several very important initiatives for our organization.

**Independence:** First, we are working to establish the Amah Mutsun Land Trust as an independent organization with sufficient capacity and funding to sustain our mission in the long run. This is a very important goal and I’m happy to report that we have accomplished a lot so far.

**Budget:** We have developed (and the Board of Directors has approved) a formal AMLT budget for 2017 that is both ambitious and sets reasonable expectations for our growth. This budget ensures a robust program of Native Stewardship, increases executive and administrative capacity and provides strong support for the many AMLT education and research projects underway.

**Organizational Systems:** In addition to creating a strong financial plan, we are establishing all the banking, insurance, accounting and payroll systems necessary for AMLT to successfully manage its affairs.

**Funding Strategy:** As part of this year’s plan we are preparing a detailed funding strategy for AMLT. The strategy includes plans for targeted donor campaigns as well as continuation of our efforts to secure strong financial and in-kind support from private foundations and public agencies. Sustainable funding for our programs is essential and we are working hard to make sure those funds are available for this year and the years ahead.

**Project Management:** One more top priority has been to layout the timeline, project list and resources needed for an exciting year ahead. I am happy to report that, as a result of the hard work of the Board and the AMLT research associates, we have a very full calendar for 2017. We will continue research at Whalen Meadows, Sand Hill Bluff and San Vicente Redwoods, and 2017 includes a very busy year for the AMLT Native Stewardship Corps, our signature program. At Pinnacles National Park, at Quiroste Valley, at Pie Ranch and
the UCSC Arboretum there is much work to be done. Many other locations throughout the Tribal territory have been included in the 2017 spring and summer stewardship schedule and we look forward to sharing details of these programs with everyone soon.

The depth and breadth of the work of Amah Mutsun Land Trust is remarkable and getting all our projects organized, funded and executed is a big job! Fortunately we have a remarkable team of research associates, tribal members and a dedicated Board and President who are devoted to our mission. I am very pleased to be part of this team and glad we are well underway.

As we continue to grow and approach our transition to independence, it is important to offer sincere thanks to Sempervirens Fund for its steadfast support and significant contributions to AMLT as our fiscal sponsor. Without the ongoing support of Sempervirens Fund and our many other generous partners, AMLT could not have achieved all that it has.

Your contribution—as a donor, as a volunteer and as vocal supporter for this important work—is essential to AMLT’s success and deeply appreciated. I look forward to seeing you in the warmer weather—outside and enjoying the many gifts we share.
QUIROSTE VALLEY AND THE VALUE OF COLLABORATIVE ARCHAEOLOGICAL RESEARCH ABOUT NATIVE HISTORY

By Rob Cuthrell, AMLT Research Associate

Ten years ago, a group of researchers led by UC Berkeley Professor Kent Lightfoot came to the Amah Mutsun Tribal Council with a novel kind of proposal. They wanted to work with the Tribe and State Parks to begin a scientific project to learn more about the long term history of relationships between Native people and the natural world at Quiroste Valley, located near Año Nuevo Point in San Mateo County. A primary goal of the project was to investigate whether Native people used prescribed burning as a stewardship method to maintain open and productive landscapes long before the arrival of Spanish colonists.

The research project would bring together many different types of academic and scientific methods in a framework we call “integrative historical ecology.” Under this approach, researchers recognize that no single method or discipline can provide a complete picture of complex human-environment relationships. So we try to understand ways of life in the past using a diversity of perspectives that can include documentary histories, oral traditions, archaeology (the study of physical materials created and used by people in the past), ecology (how animal and plant communities function and interact), and paleo-ecology (how biotic communities were structured and functioned in the past).

When researchers came to the Amah Mutsun Tribal Council with this proposal, some council members were concerned about approving the project because it was going to include archaeological excavations of an ancestral site in Quiroste Valley. For many Native tribes in California, relationships with the discipline of archaeology and its practitioners have been and continue to be difficult. Through much of the 20th century, archaeologists carried out destructive research on sacred ancestral sites and the physical remains of ancestors with little regard for the rights and perspectives of contemporary Native communities. For many Native people, their relationship with archaeology today involves monitoring the destruction of archaeological sites during construction and development activities, and reburying the remains of ancestors whose burial places
have been disturbed. These difficult experiences can be deeply emotionally and spiritually challenging for those who are involved, and it is no surprise that many tribes seek to minimize the amount of archaeological work carried out.

Beginning in the 1980s, some archaeological researchers in California began pursuing new types of collaborative relationships with Native communities. The goal was for tribes to become equal partners in archaeological research, meaning research would be designed to answer questions important to the tribe, and the tribe would have final say over how the research is conducted. In our collaborative research project at Quiroste Valley, the Amah Mutsun Tribal Council approved a “low-impact” proposal for archaeological research. The plan included the use of nondestructive geophysical techniques to attempt to locate and avoid disturbing burials. These techniques also allowed researchers to target intact deposits like cooking pits and hearths, minimizing the number of excavation units needed to recover high quality information about how Native people used natural resources.

Quiroste Valley floor during fieldwork in summer of 2009. Foreground, Amah Mutsun tribe members Manuel Pineida and Nathan Vasquez collect sediment cores from the floor of the valley. In the background, tents of the archaeological field camp are visible behind the shrubs. Photo courtesy Rob Cuthrell.

During the summers of 2007–2009, Amah Mutsun Tribe members worked with graduate and undergraduate students from UC Berkeley to conduct archaeological research at a site in Quiroste Valley. The site, which contained deposits dating from 700 to 1000 years old, may have been a settlement called “Metenne” by the Quiroste tribe. We think it was also the location where first contact was made between Quiroste people and the first Spanish expedition into California by land, led by Gaspar de Portola in 1769. The Spanish called the settlement “Casa Grande” because there was a large hemispherical dance house there, perhaps large enough to hold 200 people. Unfortunately, any portions of the site representing its history during the 18th century were probably destroyed by farming activities in the mid-1900s.

Our archaeological research at Quiroste Valley focused primarily on how Native people used plants and animals. Based on fire ecology research, we hypothesized that if Native people did not use prescribed burning to maintain open landscapes, they would have lived surrounded by woody vegetation such as shrublands and
mixed conifer forests. If they burned the landscape regularly, woody vegetation would have been replaced by open coastal prairie, and the landscape may have had a more diverse mosaic of vegetation types. These expectations allowed us to make predictions about the types of plants and animals people would have used for food and fuel in each scenario. With a lack of landscape burning, we think people would have relied mostly on the types of nut and berry foods produced in forests and shrublands, such as acorns, bay nuts, huckleberries, and blackberries. Alternatively, if the landscape was dominated by coastal prairie, people could have incorporated grassland seed foods such as wild grains and seeds produced by other annual plants into their diets.

During excavations, we used a technique called flotation to recover very small animal bones and burned plant remains, some as little as half a millimeter in size. In total, our team analyzed about 50,000 plant seeds and 20,000 animal bones. The vast majority of plant seeds were from grassland seed foods, while nuts and berries made up a very small proportion of the assemblage. This suggested that people living at the site had access to extensive open grasslands from which they harvested seeds regularly. Deer and rabbit bones were the most common animal remains, but we noted that there were more burned vole bones than burned wood rat bones. Since voles live in open grasslands while wood rats live in woody vegetation types, this observation supported the view that grasslands were common in the area. We also looked at the types of wood people used as fuel in their fires, and found that most of the fuel was from redwood, and there was very little wood from Douglas fir or shrubs. This was an important finding because Douglas fir trees, which dominate the landscape today, are easily killed by fire (at least until they become quite old), but redwoods are highly resilient to fire. Each archaeological line of evidence we examined was consistent with a more open landscape and more frequent burning than we would expect to see under natural conditions.

Amah Mutsun Tribe Members meet with California State Parks staff to discuss the designation of Quiroste Valley as a Cultural Preserve, 2008. Photo courtesy Chuck Striplen.

In addition to the information we gained about prescribed burning, the archaeological research also provided insight into many other aspects of Native life 1000 years ago. For example, we found that the site contained a high diversity of marine fishes, including many bones of small schooling fish such as anchovy and herrings, highlighting the importance of net fishing at this time.

We also found that the site contained fewer bird bones than most other archaeological sites from this time period. Amah Mutsun elders have suggested that this could indicate that the people living at Metenne were part
of the Bird Clan, and they may have had special prohibitions on eating birds there. Another important finding was that the site contained a relatively high number of tobacco seeds, which doesn’t naturally grow on the coast. The large amount of tobacco seeds could indicate a long history of ceremonial importance to the settlement, as demonstrated in the 1700s by the dance house described by the Spanish.

In addition to the archaeological research, members of our team carried out studies of pollen and microscopic charcoal in ancient sediment layers, microscopic plant remains in soils across the landscape, fire scars hidden in the trunks of redwood trees, historical descriptions of landscape vegetation from the late 1700s, and other lines of evidence. Considered together, most lines of evidence indicated more open landscapes with more frequent fire during the last several hundred years to about 1000 years ago in the area. Our research team published our results in the journal *California Archaeology* in 2013. Since then, AMLT has been using the outcomes of the research project to guide decisions about revitalizing traditional stewardship practices at Quiroste Valley Cultural Preserve.

The landscape of Quiroste Valley now looks much different than it did when Native people tended it. For the last 35 years, State Parks has managed the land as a wilderness area, and much of the former fields and prairies have been overtaken by coyote brush shrubland and Douglas fir forest. One of the first stewardship activities AMLT conducted at Quiroste Valley in spring of 2014 involved removing shrubs that were invading prairies and shading out native bunchgrasses such as purple needlegrass, California oatgrass, and others. Our archaeological research at Quiroste Valley indicated that the annual plant coast tarweed was an important seed food 1000 years ago. Today there is a robust population of coast tarweed on the Quiroste Valley floor, but it is heavily invaded by the exotic and highly toxic poison hemlock plant, which makes it unsafe to harvest tarweed seeds. Since summer 2015, AMLT Native Stewards have been working to reduce the number of poison hemlock plants so that the tarweed can be safely harvested again.

Today, AMLT is continuing to collaborate with researchers to improve our understanding of Native people and the deep history of their relationship to the natural world. We hope that our new investigations in Santa Cruz County will provide information about these relationships in the period before 1000 years ago, as well as help us to understand how Native stewardship was carried out across the broader coastal region. Our great hope is that the research project at Quiroste Valley will serve as a model for future collaborative projects to revitalize Native stewardship throughout Amah Mutsun territory and elsewhere in California.
AMLT Native Stewards Nathan Vasquez, Abran Lopez, and Paul Lopez (left to right) remove Douglas fir trees encroaching on coastal prairie at Quiroste Valley Cultural Preserve, 2016. Photo courtesy Rob Cuthrell.
RECENT COLLABORATIVE ARCHAEOLOGICAL FIELDWORK ON THE SANTA CRUZ COAST

Text and photos by Kent Lightfoot, AMLT Board Member and UC Berkeley Professor of Anthropology

Processing soil samples using a field flotation system established at Wilder Ranch State Park with (from left to right) Rachel Gordon (UCB undergraduate), Paul Lopez (AMTB), Rosario Torres (UCB undergraduate), and Josh Higuera (AMTB).

A collaborative team of researchers from the Amah Mutsun Tribal Band, California State Parks, UC Berkeley, and UC Santa Cruz initiated archaeological fieldwork on the Santa Cruz coast in the summer of 2016. Our study used our eco-archaeological approach to research different-aged sites across a large area to broaden the study of indigenous landscape management on the Central California coast. While Native people enhanced the productivity of local landscapes in many ways, one of the most important tools in California was fire. They prescribed fires for many reasons: to clear undergrowth, to control insect infestations, to facilitate hunting, and to augment the growth of plants and animals used for foods, raw materials, and medicines. Depending on the frequency, timing, and location of fires, people would have enhanced the biodiversity and sustainability of economic resources and substantially altered the structure of local habitats. By igniting a series of small, low-intensity fires in their tribal territories, Native peoples created patchy mosaics of biotic communities characterized by vegetation stands at different stages of regrowth.
Gabriel Pineida (AMTB) helping to build a retaining wall to protect and preserve archaeological deposits at Sand Hill Bluff with (from left to right) Amanda Dobrov (UCB undergraduate), Michele Maybee (UCB undergraduate), and Rob Cuthrell (UCB archaeologist and AMLT Research Associate).

The current investigation builds upon a methodology developed earlier at Quiroste Valley in Año Nuevo State Park, as outlined by Rob Cuthrell in this newsletter, for examining past indigenous landscape burning using both ecological and archaeological data sources. We are using multiple lines of physical evidence to document when indigenous peoples first initiated sustained practices of prescribed burning on the Santa Cruz coast and how they changed these practices over time. We are particularly interested in examining how Native groups used these practices to transform the composition of local biological communities. The study was funded by the National Science Foundation, the Research Institute for Humanity and Nature, and the Class of 1960 Chair in Undergraduate Education at UCBerkeley. California State Parks provided logistical support throughout the fieldwork, along with the Amah Mutsun Land Trust and Sempervirens Fund.

Roberta Jewett (UCB archaeologist), Rosario Torres (UCB undergraduate) and Abran Lopez (AMTB) recording soil color from a shallow surface survey unit at Sand Hill Bluff.
We investigated four sites (CA-SCR-7,-10,-15,-123/38) along the Santa Cruz Coast south of Año Nuevo Point that contain archaeological deposits that date to the Middle Holocene (6000-3000 BP), Late Holocene (3000-500 BP), and the Historical (after 500 BP) Periods. They are ideally suited for addressing research questions about the changing nature of indigenous resource management practices over time. The first site, CA-SCR-7 (Sand Hill Bluff Site), is an imposing shellmound that contains deeply stratified archaeological deposits dating between 3000 to 7000 BP. The second site, CA-SCR-10, sits on a nearby agricultural field and may date to the Middle Holocene. The third site, CA-SCR-15, consists of a well-preserved Late Holocene village, which was occupied after 1200 BP. The final site we examined was CA-SCR-123/38 in Wilder Ranch State Park. It is comprised of an extensive shellmound dating to Middle and Late Holocene times that underlies a later adobe structure built in the mid-1800s.

![Image](https://example.com/image.jpg)

Nathan Vasquez (AMTB) screening archaeological materials from excavations at the historical Bolcoff Adobe at CA-SCR-123/38.

We employed a low-impact field program designed specifically to minimize disturbances to the archaeological remains and to avoid human remains and other sacred materials. The field methods include topographic mapping; ground penetrating radar that can reveal buried archaeological deposits; surface collections of archaeological materials; soil collection using augers; and limited excavations. The work was undertaken by California State Park archaeologists and ecologists, UC Berkeley faculty, staff and students, and members of the Amah Mutsun Tribal Band.

Hands-on teaching took place in most of our methods. Five members of the Stewardship Corps of the AMTB participated in all components of the fieldwork during the summer of 2016. They included Josh Higuera, Abran Lopez, Paul Lopez, Gabriel Pineida, and Nathan Vasquez. Eleanor Castro worked as the camp cook and Amah Mutsun Tribal Elder and scholar “in residence” during the field program. She not only provided guidance and insight for the Stewardship Corps members, but also helped train UC Berkeley students and staff about the past and contemporary lifeways, spiritual practices, and cultural values of the Amah Mutsun people. Laboratory research is now underway on the archaeological materials collected this summer, and our findings will be described in a future newsletter article.
In closing, it is important to emphasize that the ultimate goal of our project is to better understand the dynamics of long-term landscape management practices and how the reintroduction of such practices can enhance landscape values today. We are examining how past traditional resource and environment management practices may be integrated with contemporary landscape management to augment the biodiversity and health of biological communities in land preserves and national and state parks in California. We are working closely with California State Parks to explore if indigenous landscape management practices may be reintroduced to increase the availability of native plants and animals employed by tribal members for food, craft production (such as basket making), medicines, and ceremonial regalia.
NOTES FROM THE NATIVE STEWARDSHIP CORPS

By Nathan Vasquez, AMLT Native Steward

Nathan Vasquez blows chaff off of California Brome seeds during a pinole-making demonstration. Photo courtesy Rick Flores.

The AMLT Native Stewardship Corps reconnects tribal members with traditional cultural practices, places, and knowledge through conservation fieldwork and cultural education. Here Nathan Vasquez describes his work with the AMLT Native Stewardship Corps and shares some of his artwork featuring prominent Amah Mutsun cultural symbols.

My name is Nathan Vasquez and I have been working part-time as a Native Steward for my Tribe for nine years. During that time I’ve developed a lot of knowledge regarding Native and contemporary stewardship, archaeology, ethnobotany and fire management. This past June, I and five other Tribal members in the AMLT Native Stewardship Corps participated in a four week archaeological field school with UC Berkeley, UC Santa Cruz, California State Parks and Recreation. The site we were studying was on the coast north of Santa Cruz and was approximately 7,000 years old. I learned how to use GPS to identify exact locations within the site and to mark the test plots we developed. During this study I spent a lot of time sifting through materials that were pulled from test plots. We found debris from the time of our ancestors who worked here to make arrowheads and tools out of chert. We found fish, bird and animal bones that were part of our ancestors’ diet and we also found a lot of mussel and abalone shell fragments. The site was very deep and seeing this evidence of what our ancestors ate, what tools they were making and how long they lived on this site was very humbling.
At this site we built a retaining wall to keep the site from caving in or being disturbed by the public. Protecting our cultural sites is very important to our Tribe.

Each morning our Tribal members would pray. We prayed that we would not disturb the remains of our ancestors, we prayed to give thanks to our ancestors for the way they took care of Mother Earth for so many years, and we prayed that our current-day tribe can learn how to take care of Mother Earth in the way our ancestors did so we can continue in their path.

I’m very grateful for the opportunity to work as a Native Steward for our AMLT.
Ethnobotany is the study of the human relationship with plants. Each AMLT newsletter highlights a native plant that is used by the Amah Mutsun. We hope you enjoy learning more about the useful and culturally significant plants all around us.

Mutsun name: saapah

California Spanish name: pil

Common name: red maids

Scientific name: Calandrinia ciliata

Red maids are an inconspicuous but important plant food for the Amah Mutsun. They grow in grasslands throughout Amah Mutsun territory, and respond especially well to disturbances such as fire, mowing, scraping, or grazing. Red maids grow close to the ground and look similar to grass from a distance, but if you get close you will notice each plant has a basal rosette, with linear to spoon-shaped leaves along spreading, sometimes reddish stems, and small magenta flowers with five petals that open when the sun is shining. Red maids begin blooming as early as February and they tend to complete their annual life cycle by May. Both the young leaves and the seeds of the red maids are edible.

The Amah Mutsun have stories about their ancestors gathering red maids seeds in great quantities. Red maids were abundant enough under indigenous management, especially regular burning, that the people would make fist-size balls out of the tiny (1-2 millimeter), oily seeds, with one ball feeding one person. Imagine how many seeds would be gathered to feed hundreds of Mutsun people! Today in unmanaged grasslands, you would be hard-pressed to gather enough seeds to make one meal, let alone feed a family. But in areas that have been burned, mowed, or grazed, the Amah Mutsun still observe dense patches of red maids that seem to appear out of nowhere when conditions are right. For example, after the Amah Mutsun and the National Park Service
conducted a prescribed fire to restore basket weaving grasses at Pinnacles National Park in 2011, red maids were seen carpeting the sandy soil in between the burned bunch grasses, while in prior years they were only observed in a few small patches. Maybe you will see some this spring, and take a moment to honor the tiny saapah that provided food to generations of California Indian people.

Photo courtesy Sara French
Ascención Solórsano was a Mutsun healer and leader who had extensive knowledge of Mutsun culture, language, plant uses, and customs. In the 1920s and ’30s she shared her knowledge with John P. Harrington, an ethnographer from the Smithsonian Institute. Harrington recorded over 78,000 pages of her wisdom, which are stored at the Smithsonian. In each newsletter, we share a selection from these notes. Here are some of Ascensión’s words:

Reel 61.1, Frame 151.1:

‘Eenena, California blackberry (Rubus ursinus). Photo courtesy Greg Rabourn.

‘Eenena, California blackberry, la mora, Rubus ursinus

‘eenakma, plural; ‘ense, to gather blackberries

How many blackberries there used to be in San Juan and in Gilroy; but in Aromas is where there was really a lot, and still there’s a lot there, because they haven’t cleared out the brush there yet. I used to go to gather blackberries with my mother and other women many times. Most of the time we brought jars to put the berries in and we’d line them with big alder leaves or other leaves inside, so that the berries wouldn’t get the bad flavor of the tin.

And also I saw baskets woven of tule just made there to use for gathering blackberries, just the straight tules with a hoop of whatever green branch on the top and tied together at the bottom, so that the basket came to a point at the bottom, so that it looked like a horn.