

# Landscape Management Practices in Late Holocene California: Implications for Contemporary Stewardship

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Burning Cattails near Mono Lake



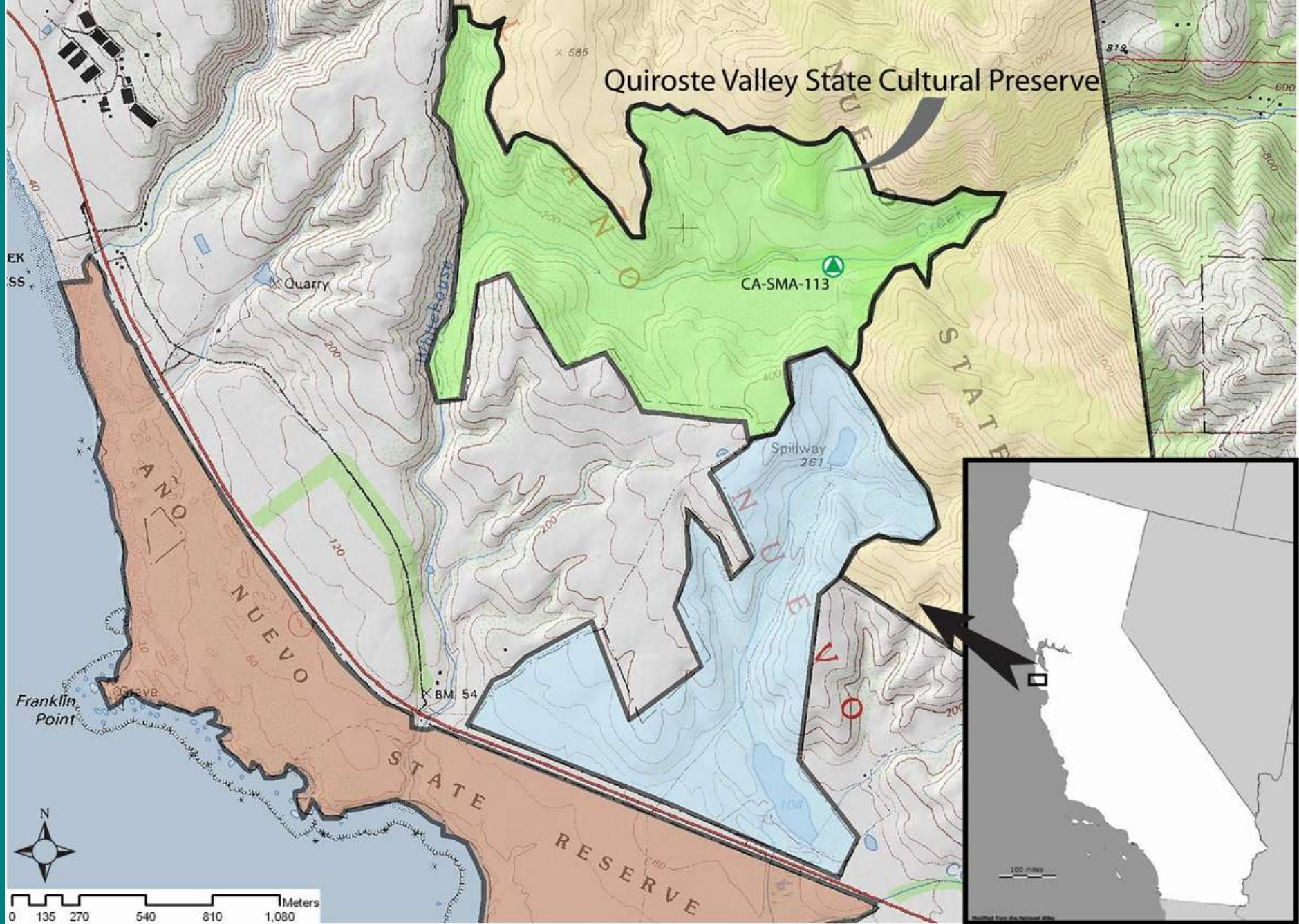
Patchwork of Different Aged Vegetation Stands  
from Successive Burns in Chaparral Country



Deergrass (*Muhlenbergia rigens*) – Paul Engel



Amah Mutsun Ohlone Tribe and California Dept. of Parks and Recreation



Ano Nuevo State Reserve – Quiroste Valley Cultural Preserve





Ano Nuevo State Preserve; Pinnacles National Monument





Pedestrian Surface Survey

# Our Research Team

## Archaeology:

Kent Lightfoot (UC Berkeley, ANTH)  
Mark Hylkema (CA State Parks)  
Rob Cuthrell (UC Berkeley, ANTH)  
Christine Hastorf (UC Berkeley, ANTH)  
Diane Gifford-Gonzales (UCSC, ANTH)  
Cristie Boone (UCSC, ANTH)

## Pollen Analysis:

Roger Byrne (UC Berkeley, GEOG)  
Alicia Cowart (UC Berkeley, GEOG)

## Phytolith Analysis:

Rand Evett (UC Berkeley, ESPM)

## Dendroecology & Historical Ecology:

Scott Stephens (UC Berkeley, ESPM)  
Chuck Striplen (UC Berkeley, ESPM)  
Greg Jones (SJSU, ENVSCI)

## Amah Mutsun Collaborators:

Valentin Lopez (Tribe Chair)  
Paul Mondragon (Vice Chair)  
Chuck Striplen (Tribe Member)

## Geomorphology:

Laurel Collins (Watershed Sciences)

## Vegetation Mapping:

Brett Hall (UCSC Arboretum)  
Brent Johnson (Pinnacles Nat'l Monument)

## Isotopic Analysis:

Lynn Ingram (UC Berkeley, EPS)

## Phylogenetics:

Paul Fine (UC Berkeley, IB)

## Vegetation & Fire Modeling:

David Ackerly (UC Berkeley, IB)  
Max Moritz (UC Berkeley, ESPM)  
Enric Batllori (UC Berkeley, ESPM)



Collecting Redwood Samples – Fire Scar Analysis

Redwood Wedge  
Samples

Identify Fire Scars  
Of Past Burns





Sediment Core from Skylark Pond





## Off-Site Sampling



# Deer Grass Phytolith





# Pinnacles Field Work





Quiroste Valley: Excavations at CA SMA 113



Chuck Striplen, Rico Miranda and Rob Cuthrell

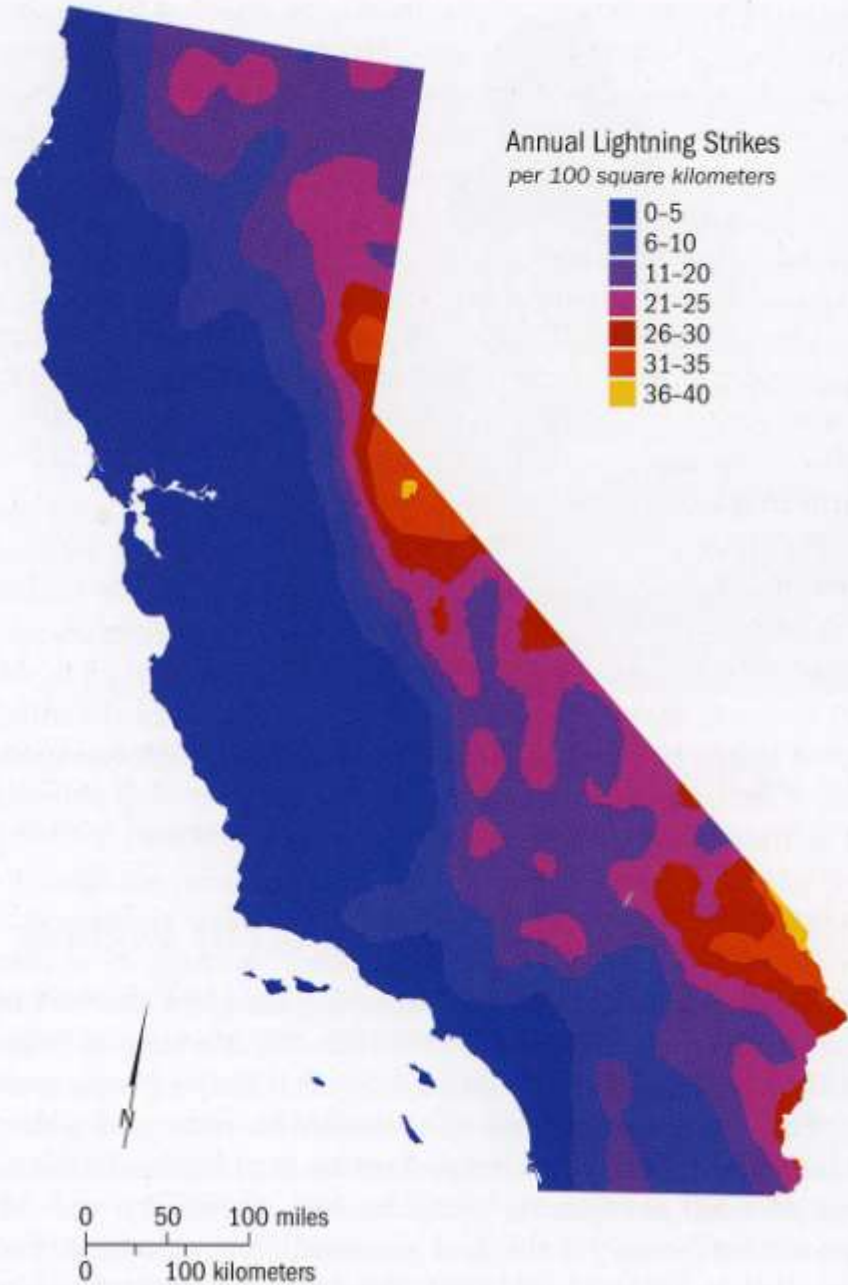
## Flotation of Sediment Samples

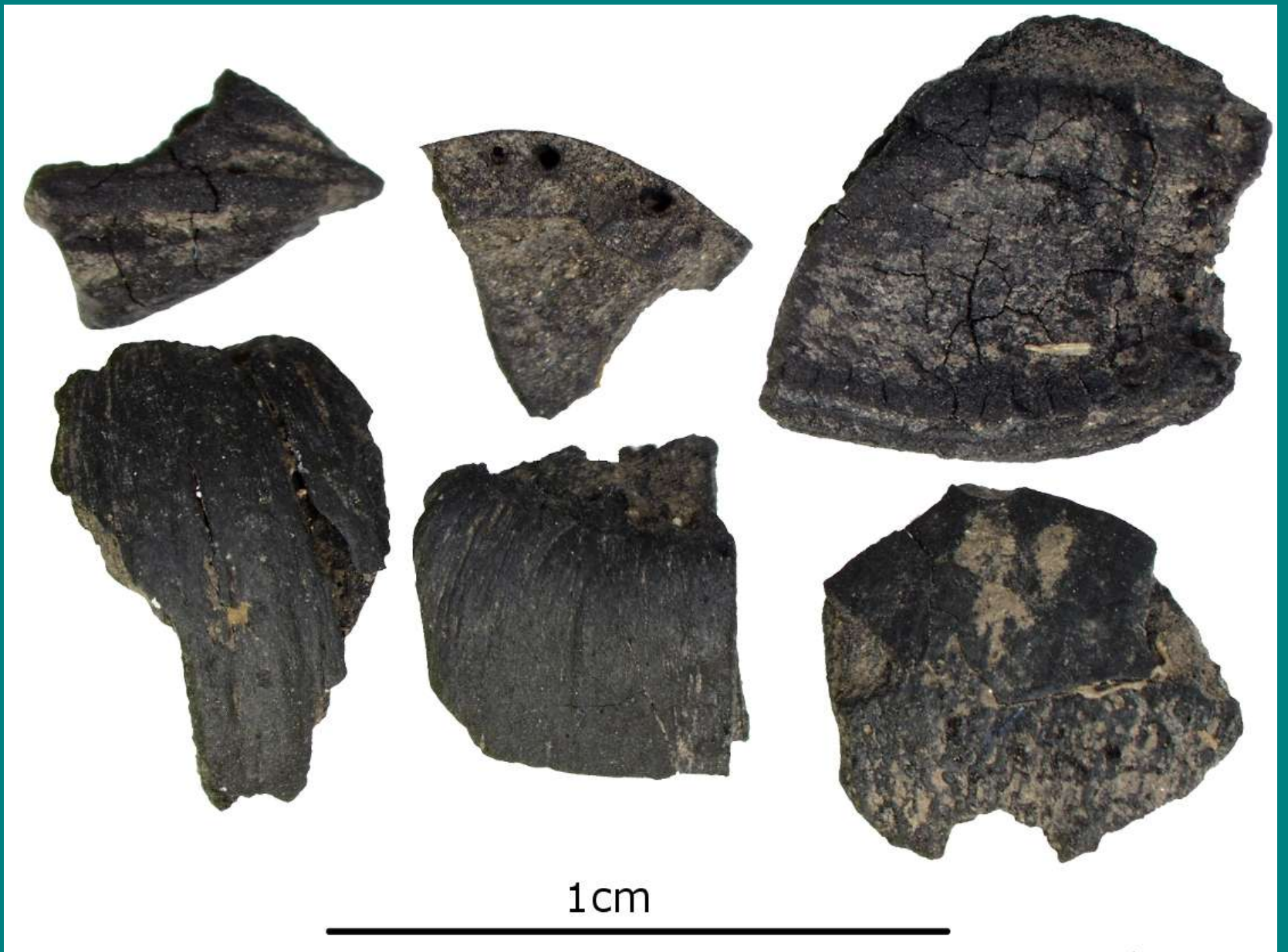




Macroscopic Flotation Samples

# Annual Lightning Strikes per 100 sq km





California Hazel (*Corylus cornuta*)

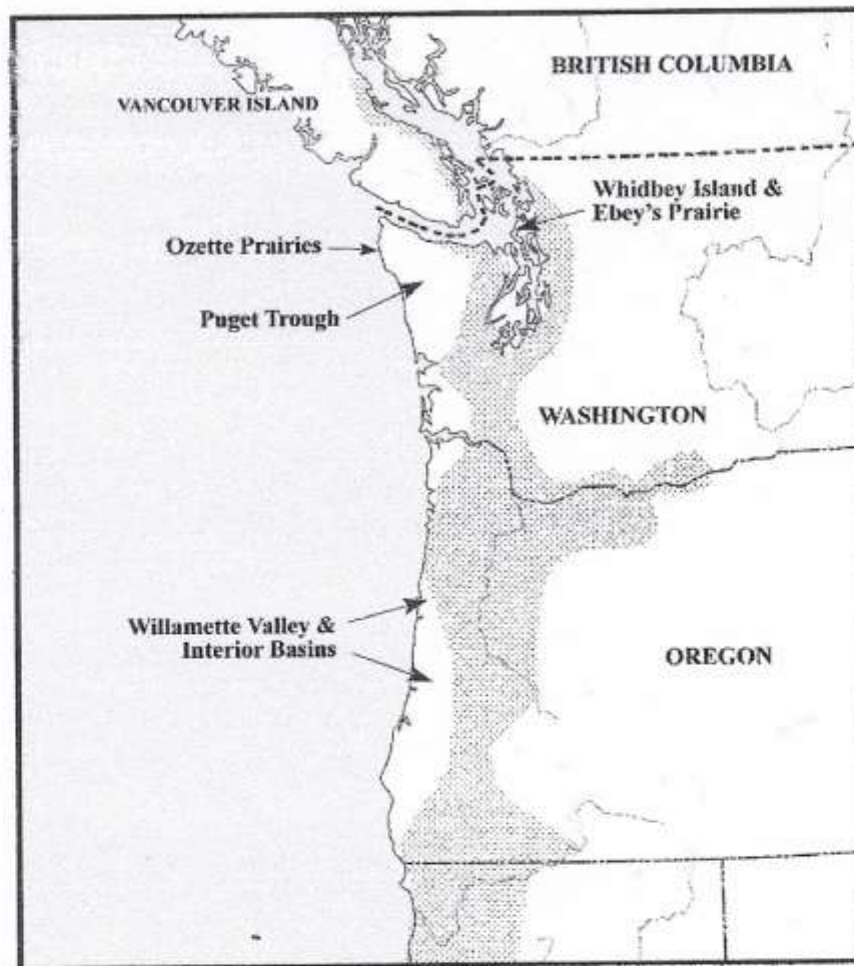


FIGURE 1. Potential maximum historic distribution of prairie ecosystems in the Pacific Northwest, based on the current distribution of camas and oak (*Quercus* sp.). Note that the distribution does not encompass all historically known prairies that today do not support native vegetation (e.g., Ebey's Prairie, Ozette Prairies), nor many small, isolated prairies that still exist (e.g., within the San Juan Islands of western Washington). Likewise, given the gross scale of the figure, some small regions that were not prairies are encompassed in the hachured area. Map based on California flora database (2006), Gould (1942), Lea (2006), Oregon Flora Project (2005), and the US Forest Service (n.d.).