

**POSTER SESSION****PREHISTORIC PLANT USE IN THE CUYAMA VALLEY; THE IMPORTANCE OF SMALL SITES**

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*A small logistical site in Cuyama Valley, CA-SLO-1140, contains a sparse ground stone assemblage and distinct Early and Late Period botanical remains suggesting that the location was selected for seasonal plant collection and processing. Nutshell and berry pits reflecting summer and fall occupation are associated with the Early Period component, while small seeds and acorn identified in the Late Period locus indicate spring, summer, and fall gathering. These findings partially support models of intensified acorn use over time in central California, but also show some divergence from the models. Archaeobotanical analysis and recovered artifacts demonstrate the potential significance of these more-ephemeral, "stopover" sites in understanding broader regional? settlement patterns.*

# PREHISTORIC PLANT USE IN THE CUYAMA VALLEY: THE IMPORTANCE OF SMALL SITES

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## Introduction

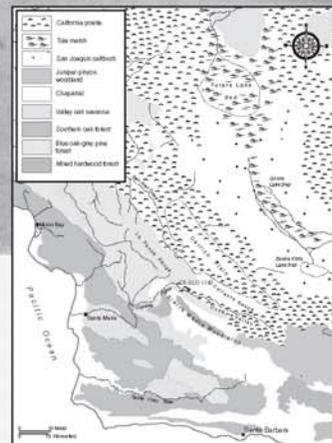
Situated on a terrace above the wide Cuyama Valley, CA-SLO-1140 provides a glimpse of prehistoric land use in an interior central California valley. Recent excavations by the California Department of Transportation revealed a sparse artifact scatter across the site area, as well as discrete concentrations with divergent dates and distinct floral assemblages that suggest specific temporal adaptations. Realizing the site's potential to provide information on plant use change, the recovered floral assemblage is compared to the 9,000-year central California plant use sequence documented by Wohlgemuth (2004).

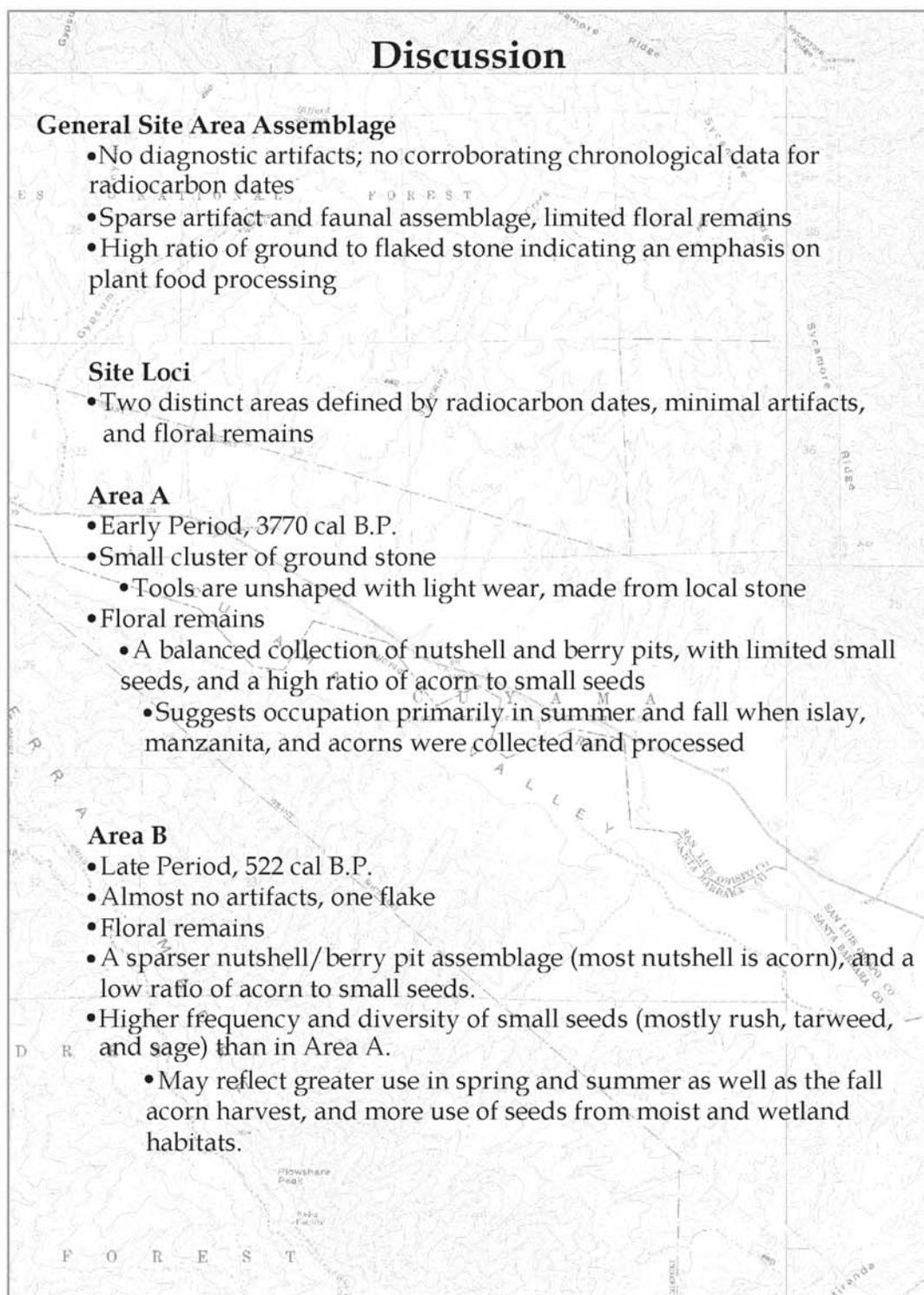
## Research Objectives

- Demonstrate that identified charred plant remains are the result of cultural activities.
- Test the applicability of plant use patterns observed in central California with data collected from Cuyama Valley.

## Methods

- Compare flotation samples from on- and off-site locations.
- Use of simple indices to measure proportional amounts of acorn or small seeds through time.





## Research Questions

### *First: Are The Floral Assemblages Cultural?*

#### **Off-site Sample**

- Charred, fragmented grass and bean family seeds
- Nutshell and berry pits are not as abundant as in the on-site sample

#### **On-site Sample**

- Seed remains are consistent with ethnographic plant use information
- Identified floral materials are consistent with cultural samples from substantial southern and central California archaeological sites

#### **Summary**

- Charred grass and bean family seeds, found in both on- and off-site samples, suggest that those materials in the on-site samples may not have a cultural origin, or may not all be cultural.
- Distinctions between the on- and off-site samples, however, clearly differentiate the site floral sample from material in the sterile deposit, indicating that the site assemblage is a cultural deposit.

### *Second: What Does The Assemblage Indicate About Plant Use In California?*

#### **Hypothesized Central California Patterns Of Plant Use**

- **Early Period** – (a balanced array of nut and seed remains)
  - Low proportion of acorn to all nuts
  - Low acorn to small seed ratio
  - Low to moderate density and diversity of small seeds
- **Middle Period** – (increased acorn use)
  - High proportion of acorn to all nuts
  - High acorn to small seed ratio
  - Low density of small seeds
- **Late Period** – (high proportions of acorns and small seeds)
  - High proportion of acorn
  - Intermediate acorn to small seed ratio
  - Abundant and diverse small seed assemblages

## The Test

Wohlgemuth (1996) identifies two indices to measure the relative amounts of acorn and small seeds:

I. Index for acorn use:

- Proportion of acorn to all nuts and berries
- Ratio of acorn nutshell (by weight) to small seeds (by count)

II. Index for small seed use:

- Frequency of small seeds (by count) standardized per liter of sediment

At CA-SLO-1140 the indices for acorn and small seed suggest:

- An increase in acorn proportion from early to late periods, consistent with the central California pattern.
- A smaller increase in small seeds than in other Late Period sites in central California, which is not reflective of intensive use.
- A decrease in the acorn to small seed ratio from the Early to Late periods, which is not consistent with the central California trend.

## CONCLUSIONS

- The CA-SLO-1140 floral assemblage is the result of cultural activities.
- The location appears to be a preferred site for seasonal plant collection and processing that was occupied periodically for short periods of time, by small numbers of people.
- Plant use in the Cuyama Valley transitioned from:  
An Early Period focus on nuts and berries in summer and fall to a Late Period focus on fall acorns and secondary use of small seeds in spring and summer.

The information provided from CA-SLO-1140 is by itself insufficient to evaluate whether central California models of changing plant use can be applied to Cuyama Valley. However, this research suggests that CA-SLO-1140, as well as other ephemeral sites, should not be overlooked for their importance in understanding prehistoric settlement-subsistence systems. Only when land and resource use data from a range of individual sites are considered can we begin to understand a comprehensive regional system.

### References

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