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UC Berkeley Field School in Oakland's Fruitvale District: Community Archaeology for a New Generation of Professionals

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Authors

Tripcevich, Nicholas
Kansa, Sarah
Reifschneider, Meredith
et al.

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UC Berkeley Field School in Oakland's Fruitvale District: Community Archaeology for a New Generation of Professionals

N. Tripcevich, S. Kansa, M. Reifschneider, B. Tung, R.S. Byram & C.A. Hastorf • ARF • UC Berkeley   Contact: arf-labs@berkeley.edu, http://arf.berkeley.edu

ARCHAEOLOGICAL RESEARCH FACILITY

Berkeley UNIVERSITY OF CALIFORNIA

The ARF Field School

The 2022 UC Berkeley Archaeological Research Facility Field School recruited students from a broad range of backgrounds and several nearby colleges with the goal of increasing the discipline's diversity with 10 new archaeological technicians and graduate students.

Background

The project focused on the remains of a row of early 20th century residences along the margin of the Peralta Hacienda Historical Park.

The park is located on the old headquarters of the San Antonio land grant positioned between two major East Bay streams.

Map source: PeraltaHacienda.org

1965 California Aerial Survey

2021 Bing Imagery

The Peralta Hacienda Historical Park boundary is shown in green, the GPR survey area in orange, and the excavation blocks in blue.

Investigations began with archival research and GIS layer development, followed by community interviews, ground-penetrating radar survey, precision GPS and excavation techniques including feature documentation and stratigraphic analysis. GPR and archival map research were used to locate features including a refuse pit with an extensive household assemblage comprised of domestic mercantile, botanical and faunal material. On-campus lab analysis followed, with guest lectures and training in a wide range of techniques. Their experience in many aspects of archaeological field and lab methods left students well prepared for professional work and/or graduate school. Research findings are being incorporated into exhibits and presentations at the community historical park, which serves local schools and other organizations as well as the general public.

Geospatial Training

The field school incorporated both traditional (map and compass) and digital mapping methods. Students gained several weeks of experience in both QGIS and ESRI Arc products as they participated in project planning, gathering data from primary sources, and overlaying different datasets.

These data sets included:
- Lidar topography and historical maps
- georeferencing Sanborn fire insurance maps, subsequently linked to 1950 Census data tables
- GPR survey of potential test unit locations
- interpretation of the GPR slice maps for possible testing
- RTK GNSS mapping of modern and subsurface features
- Total station mapping of units

Students shared final presentations with the Peralta Hacienda Historical Park community organizing their data in ArcGIS Online and ESRI StoryMaps.
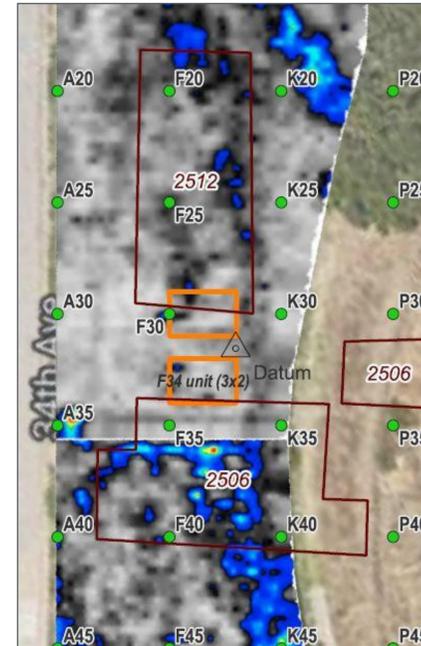
Mapping and GPR

Students using GSSI 350Mhz Hyperstacking GPR with S. Byram

GIS Grid, GPR, Sanborn Maps
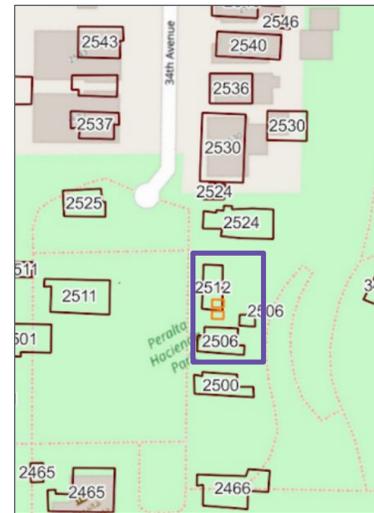
1951 House footprints traced from Sanborn maps after georeferencing.

Orange blocks show the two excavation areas.

Sanborn footprints, GPR, and site grid

Methods

In the Field: Students mapped and excavated mid-20th century houses and undertook initial sorting of materials in the field at the Peralta Hacienda Historical Park

In the Lab: Daily workshops focused on analysis of faunal remains, glass, ceramics, lithics, and plants, as well as data entry, cleaning, analysis, and visualization.

Outcomes

ArcGIS Online and ESRI Story Maps
Students presented GIS data they had assembled using the web with dynamic geographic content.

Student Presentations
- Historical overview
  - Changing communities in the Fruitvale area
- Census data integration
  - Connecting Sanborn map building footprints with 1950 census details with a database join
- Community Archaeology
  - Historical view from community members
  - Heavily used park especially by youth
  - The value of green space despite house removal

1951 Sanborn Map

Full 1950 US Census released in 2022

Sanborn joined to Occupation

Conclusions

- There is a need for field schools accessible to underrepresented groups.
- Benefits of archaeology for community engagement and outreach
- Methods and presentation focused on pedagogical rather than research goals
- Full range of training/skills
  - pre-excavation training with in-house archaeological equipment
  - post excavation processing
  - field and lab-based data collection
  - excavation workshops on analysis and interpretation
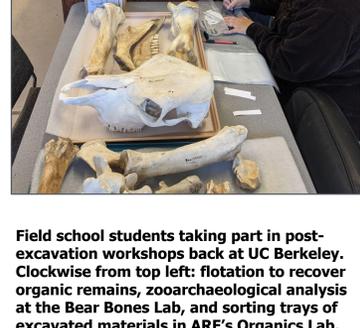
Field school students taking part in post-excavation workshops back at UC Berkeley. Clockwise from top left: flotation to recover organic remains, zooarchaeological analysis at the Bear Bones Lab, and sorting trays of excavated materials in ARF's Organics Lab.

Acknowledgements