

HAYLEY T. KIEVMAN

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EDUCATION

- 2022-present Ph.D., Anthropology, University of Utah, UT
Committee: Alexandra Greenwald (Chair), Brian Coddling, J. Tyler Faith, John Broughton
Pleistocene-Holocene Transition subsistence behaviors in central California
- 2020-2022 M.S., Anthropology, University of Utah, UT
*Late Holocene size variation of *Mytilus californianus* remains from Shelter Cove (CA-HUM-182, Northern California)*
- 2016-2019 B.A., Anthropology, Penn State, PA

PUBLICATIONS

Journal Articles

Kievman, H.T., G.R. Burns, and A.M. Greenwald. *In revision*. Re-evaluating the significance of *Quercus gambelii* acorns in the Great Basin, Colorado Plateau, and Southwest: Evidence from experimental foraging and bomb calorimetry. *Journal of Ethnobiology*.

H.T. Kievman, K.M. Wilson, R.L.F. Lamson, A. Gyumushyan, B.F. Coddling, A.M. Greenwald. 2023. Late Holocene size variation of *Mytilus californianus* remains from Shelter Cove (CA-HUM-182, Northern California). *California Archaeology*. <https://doi.org/10.1080/1947461X.2023.2223494>

Lamson, R.L.F., Wilson, Kurt. M., **Kievman, H. T.**, Yaworsky, P. M., Vernon, K. B., Coddling, B.F. *In revision*. Environmental Drivers of Social Inequality in Prehistoric Basin-Plateau Populations. *American Antiquity: Reports*.

INVITED LECTURES

Kievman, H.T. 2024. AMS dating of shell carbonates. Science Research Initiative Program, College of Science, University of Utah.

Kievman, H.T. 2023. Late Holocene size variation of *Mytilus californianus* remains from Shelter Cove (CA-HUM-182, Northern California). Science Research Initiative Program, College of Science, University of Utah.

SELECTED PRESENTATIONS

Kievman, H.T., Burns, G.R., Greenwald, A.M. 2023. *Re-evaluating the significance of Gambel Oak acorns (Quercus gambelii) in the Great Basin, Colorado Plateau, and Southwest: Evidence from experimental foraging and direct bomb calorimetry*. Great Basin Archaeological Association Bi-annual Conference.

Kievman, H.T., Wilson, K.M., Lamson, R.L.F., Coddling, B.F., Greenwald, A.M. 2023. *Late Holocene size variation of Mytilus californianus remains from Shelter Cove (CA-HUM-182, Northern California)*. Society for California Archaeology Annual Meeting.

Greenwald, A.M., A. Niclou, **H.T. Kievman**, G.R. Burns, A. Baka, A.J. Baide, and C. Ocobock. 2023. *Maternal foraging energetics in an acorn subsistence economy*. Society for California Archaeology Annual Meeting.

Greenwald, A.M., A. Merryweather, J. Herridge, A. Anderson, D. Carrier, G.R. Burns, C. McAllister, **H.T. Kievman**, and M. Weahkee. 2023. *Ancestral Puebloan Running and Walking Biomechanics*. Society for American Archaeology Annual Meeting.

Greenwald, A.M., C. Ocobock, A. Niclou, G.R. Burns, A. Baka, **H.T. Kievman**, and A.J. Baide. 2023. *The costs of women's work: maternal foraging energetics in an acorn subsistence economy*. American Association of Biological Anthropologists Annual Meeting.

Masters, O., A. Baka, **H.T. Kievman**, I. Medina, B. Yagüe, and A.M. Greenwald. 2023. *Centering Indigenous Knowledge in Anthropology Collections*. American Alliance of Museums Annual Meeting.

Masters, O., Baka, A., Kankainen, K., **Kievman, H**, Mangum, M., Medina, I., Yagüe, B., Nielsen- Grimm, G., Greenwald A. 2022. *Native American Voices Initiative at the Natural History of Utah*. Utah Museum Association Annual Conference.

Greenwald, A.M., G.R. Burns, A. Baka, **H.T. Kievman**, A.J. Baide. 2022. *Infant Carrying Technology and Maternal Foraging Efficiency*. Energetics in Anthropology, Duke University.

Kievman, H.T., Wilson, K.M., Lamson, R.L.F., Coddling, B.F., Greenwald, A.M. 2022. *How do human-environment interactions impact mussel size during the Late Period of Northern CA?* Annual Meeting of the Society for California Archaeology.

GRANTS AND FELLOWSHIPS

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| 2024 | Far Western Foundation Award (Dissertation thesis: Pleistocene-Holocene Transition Subsistence Behaviors in central California) - \$10,000 |
| 2024 | The Wilkes Center for Climate Science and Policy Research Award, University of Utah (Pleistocene-Holocene Transition Subsistence Behaviors in central California) - \$3,000 |
| 2023 | The Wilkes Center for Climate Science and Policy Travel Award, University of Utah (Re-evaluating the significance of Gambel Oak acorns (<i>Quercus gambelii</i>) in the Great Basin, Colorado Plateau, and Southwest: Evidence from experimental foraging and direct bomb calorimetry) - \$500 |
| 2022 | The Wilkes Center for Climate Science and Policy Travel Award, University of Utah (Late Holocene size variation of <i>Mytilus californianus</i> remains from Shelter Cove (CA-HUM-182, Northern California) - \$500 |
| 2021 | Global Change and Sustainability Center Research Grant, University of Utah (Exploring Links Between Late Holocene Environmental Change and Indigenous Mussel Harvesting Strategies on the Northwest Coast of California) - \$3,000 |

MENTORSHIP

Sophia Dodge, B.A. University of Utah, Anthropology, 2024 (Research Supervisor)

TEACHING

Instructor

Summer 2024, University of Utah

- ANTH 1010-090 Culture and the Human Experience

Summer 2022, University of Utah

- ANTH 1010-090 Culture and the Human Experience

Spring 2022, University of Utah

- ANTH 1010-090 Culture and the Human Experience

Fall 2021, University of Utah

- ANTH 1010-090 Culture and the Human Experience

Spring 2021, University of Utah

- ANTH 1020 Biological Anthropology

Fall 2020, University of Utah

- ANTH 1020 Biological Anthropology

RESEARCH & FIELD EXPERIENCE

Research

2023-present *Pleistocene-Holocene Transition Subsistence Behaviors in central California*
Hayley Kievman (PI) Stable isotope analysis of third molar dentin and faunal remains to reconstruct dietary variation amongst PHT residents in the Bay Area, CA.

2022-present *Re-evaluating the significance of Gambel Oak acorns (*Quercus gambelii*) in the Great Basin, Colorado Plateau, and Southwest: Evidence from experimental foraging and direct bomb calorimetry.* Hayley Kievman (PI)
Using foraging and caloric data from 19 hours of experimental Gambel Oak acorn foraging and direct bomb calorimetry to explore the possible significance of Gambel Oak as a resource in the Great Basin, Colorado Plateau, and Southwest.

2022-present *The Costs of Women's Work: Maternal Foraging Energetics in an Acorn Subsistence Economy.* Alexandra Greenwald (PI), University of Utah, Natural History Museum of Utah

The energetic expenditures and return rates of mothers foraging with infants is an understudied and important consideration in our understanding of the evolutionary role of foraging and gendered division of labor. We replicate acorn foraging conditions representative of Holocene California hunter-gatherers and compare the energetic costs of acorn foraging in females under three different infant-carrying conditions.

- 2022-present *University of Utah Native Voices Initiative, National Endowment for the Humanities*
Alexandra Greenwald (PI), University of Utah, Natural History Museum of Utah
Research assistant collaborating with Utah Tribal communities and the Natural History Museum of Utah to preserve, amplify, celebrate, and share the stories of Utah's Indigenous communities by documenting Native American Knowledge in the Museum's ethnographic collections.
- 2021-present *Leveraging Prehistoric Footwear to Reconstruct Ancient Running Biomechanics*
Alexandra Greenwald (PI), University of Utah, Natural History Museum of Utah
Researcher collaborating with the Department of Anthropology and the Natural History Museum of Utah to help reconstruct the biomechanics of running and walking using 3D scans taken from the Natural History Museum of Utah's collection of ~375 prehistoric yucca fiber sandals from across the Great Basin, Colorado Plateau, and Southwest.
- 2020- 2022 *Late Holocene size variation of Mytilus californianus remains from Shelter Cove (CA-HUM-182, Northern California).* Hayley Kievman (PI)
Archaeomalacological analysis of marine shell carbonates to explore how climate and paleoenvironmental change influenced human decision making on the North coast during the mid-to-late Holocene
- 2019-2020 *Human and Environmental Dynamics Lab*
Dr. Rebecca Bliege-Bird, Penn State (PI), Dr. Doug Bird, Penn State (Co-PI)
Collaborated with the Human and Environmental Dynamics Lab at the Pennsylvania State University as a post-baccalaureate research assistant investigating the emergent dynamics of hunter-gatherer mobility in Australia's Western Desert in relationship to the wide-spread environmental and social change that occurred following European contact in the 1950s.
- 2017 *Protecting Herbivorous Fish to Conserve Cayman Island Coral Reef Biodiversity.*
Dr. Marilyn White (PI), Central Caribbean Marine Institute.
Designed an ethnographic project for the Darwin Initiative Award by collecting data on local fishers in the Cayman Islands to understand how individuals were modifying their behaviors and livelihoods in relationship to short and long-term changes in their local ecosystems.

FIELDWORK

- 2023 *Far Western Anthropological Research Group*
Field Technician
Supervisor: Daron Duke, Far Western Principle/Director
Excavation of ~10,000-year-old footprints in the Western Utah desert.
- 2023 *Chronicle Heritage*
Field Technician
Supervisor: Dave Harvey, Office Principle, Tim Algers, Crew Lead
Red Hill Maple Hollow (23-0106), North Hills Sagebrush project (23-0425)
Archaeological survey and site recording of BLM land designated for vegetation management and restoration of habitat for both sage grouse and mule deer.
- 2022 *Uinta-Wasatch-Cache National Forest (UWCNF)*
Volunteer Technician (Equivalent to GS-0102-05) 40 hours per week 6/27 - 7/22
Supervisor: Thomas H. Flanigan, Heritage Program Manager / Forest Archaeologist, Uinta-Wasatch-Cache National Forest.
- Archaeological and historic site monitoring, recording, and assessing site eligibility and significance utilizing the criteria set forth in 36 CFR 60.4.
 - Assisted UWCNF Heritage Staff with NHPA Section 106 & Section 110 compliance through Class II and III archaeological inventories.
 - Class III Cultural Resource Inventories (Archaeological Survey):
 - Class III Cultural Resource Inventory for the proposed Hopkins access road alignment. Logan Ranger District, Uinta-Wasatch-Cache National Forest, Utah.
 - Class III Cultural Resource Inventory for the proposed Gloria Falls Trail Realignment Project. Salt Lake Ranger District, Uinta-Wasatch-Cache National Forest, Utah.
 - Class III Cultural Resource Inventory for the proposed Bear River Outdoor Recreation Alliance ADA compliant Yurt installation. Evanston-Mountain View Ranger District, Uinta-Wasatch-Cache National Forest, Utah.
 - Class III Cultural Resource Inventory for the proposed Maple Canyon Water System Development Project. Spanish Fork Ranger District, Uinta-Wasatch-Cache National Forest, Utah.
 - Class III Cultural Resource Inventory for the proposed Currant Creek Campground Fence Project. Heber-Kamas Ranger District, Uinta-Wasatch-Cache National Forest, Utah.
 - Archaeological and Historic Site Monitoring:
 - Harker Canyon Rock Imagery Site. Spanish Fork Ranger District, Uinta-Wasatch-Cache National Forest, Utah.
 - Benmore Homestead Historic and Archaeological Site. Spanish Fork Ranger District, Uinta-Wasatch-Cache National Forest, Utah.
 - Hanging Rock, Rock Imagery Site. Pleasant Grove Ranger District, Uinta-Wasatch-Cache National Forest, Utah.

- Diamond Fork Rock Imagery Sun Symbol. Spanish Fork Ranger District, Uinta-Wasatch-Cache National Forest, Utah.
- Diamond Fork Historic Forest Service Guard Station. Spanish Fork Ranger District, Uinta-Wasatch-Cache National Forest, Utah.
- Strawberry Reservoir pre-contact hearth and campsite. Heber-Kamas Ranger District, Uinta-Wasatch-Cache National Forest, Utah.
- Bear River Historic Forest Service Guard Station and Tie Hack Logging Cabin. Evanston-Mountain View Ranger District, Uinta-Wasatch-Cache National Forest, Utah.
- Mill Hollow YMCA Camp Historic Buildings. Heber-Kamas Ranger District, Uinta-Wasatch-Cache National Forest, Utah.
- Centerville Medicine Wheel. Salt Lake Ranger District, Uinta-Wasatch-Cache National Forest, Utah.
- Parrish Canyon Rock Imagery Site. Salt Lake Ranger District, Uinta-Wasatch-Cache National Forest, Utah.
- New Archaeological Site Recording:
 - Indigenous Lithic Scatter located on a ridgeline above the Logan River. Logan Ranger District, Uinta-Wasatch-Cache National Forest, Utah.
- Task Specific Experience:
 - Archaeological site monitoring to assess natural decay, erosion, and vandalism.
 - Archaeological survey, Utah (Class I, II, and III).
 - Archaeological site recording using the Utah Archaeological Site Form, Parts A, B, C, and D.
 - Historic building recording utilizing the Utah Historic Bldg. Form.
 - Assessing site significance and eligibility to the National Register of Historic Places utilizing the criteria set forth in 36 CFR 60.4.
 - Familiarity with 36 CFR 800.

- 2022 *Bear River Massacre Archaeological Project, Preston, ID*
Survey of the Bear River Massacre site in consultation and collaboration with the Northwestern Band of the Shoshone.
- 2021 *Infant Carrying and Maternal Foraging Efficiency Project*
Dr. Alexandra Greenwald, University of Utah (PI)
Field Assistant- Experimental project involving collection of metabolic data using different cradle technology from the American Southwest.
- 2021 *Strawberry Reservoir Archaeological Project, Strawberry Reservoir, Summit County, UT*
Dr. Thomas H. Flanigan, Heritage Program Manager / Forest Archaeologist, Uinta-Wasatch-Cache National Forest (PI), Dr. Brian F. Coddington, University of Utah (Co-PI)
Field Technician - Site recording and preliminary test excavation of paleo-archaic hearth and lithic features in collaboration with the Forest Service.
- 2017 *Coral Restoration Project, Little Cayman, Cayman Islands*

Central Caribbean Marine Institute

Field Assistant- Advanced SCUBA certified field assistant responsible for aiding construction of underwater coral nursery used to assess the relationship between coral growth dynamics and local ecological conditions.

Field School

2022 *Northern Utah Archaeological Field School, US Forest Service*
 Uinta-Wasatch-Cache National Forest

SERVICE

2024-present Committee member, Graduate Student Advisory Council, University of Utah

2023-present Committee member, Anthropology Outreach, Department of Anthropology, University of Utah.

2023 Search committee member for the department Colloquium series, Department of Anthropology, University of Utah

PROFESSIONAL MEMBERSHIP

Great Basin Anthropological Association

Society for Advancement of Chicanos/Hispanics & Native Americans in Science

Society for California Archaeology

CERTIFICATIONS

Foundations of Interpretation Training- Eppley Institute for Parks and Public Lands

Research Education Mentorship Certificate- University of Utah

NON-ACADEMIC EMPLOYMENT

2023-present On-call Archaeologist, Far Western Anthropological Research Group, Inc., Davis, CA

2023-present On-call Archaeologist, Chronicle Heritage, Salt Lake City, UT