***UCLA*  2025 Spring 70CW**

**Fossils and Archaeological Remains: Ancient Data for Current Studies**

一張含有 戶外, 大自然, 天空, 全景圖 的圖片

AI 產生的內容可能不正確。

Instructor: Yen-Chun Wang

In this class, we will explore research on animals in the past, focusing on both archaeology and paleontology, to discuss how historical records enhance our understanding of anthropogenic impacts, evolution, and environmental change. As a Writing II course, students will also learn how to summarize research, manage references, formulate research questions, properly cite sources, and develop a 10+ page proposal or exhibition catalog over the duration of the course.

Course Logistics

Course Time: Monday 3:00-5:50 PM, Public Affair Building 1343

Office Hour: Monday 2:00-3:00 PM, online

Instructor contact: [yenchun@g.ucla.edu](mailto:yenchun@g.ucla.edu)

Learning Outcomes

1. Explain how fossils and archaeological ecofacts serve as significant materials for understanding biological changes through time
2. Identify significant landscapes in the United States and around the world that contribute to our knowledge of the deep past.
3. Learn how to read academic papers
4. Develop skills to properly cite scholarly works and manage reference effectively
5. Describe what are the differences in inductive and deductive research
6. Write a proposal from outlining to revising
7. Practice how to search research articles for academic writing
8. Prepare, create and deliver presentations in undergraduate classes

Grading breakdown

Writing assignment 1: Introducing a site & presentation (1-2 pages): 10%

Writing assignment 2: Research proposal or catalog outline (1-2 pages) 10%

Writing assignment 3: Bibliography 5%

Writing assignments 4 Research proposal/catalog drafts 10%

Writing assignment 4: Revision 25%

Writing Assignment 4 presentation: 10%

In class discussion: 20%

Attendance: 10%

To fit the expectation of a Writing II class, the majority of your grade will be based on writing assignments. At the bottom of this document, you will find the rubrics for these assignments. In addition to writing tasks, students are required to give a 5 minute presentation on their first assignment (Week 3), a 15 minute presentation on their final assignment (Week 10), and co-lead one weekly discussion with a classmate. Discussion leaders will present the weekly reading, share their reflections, and engage with classmates in a discussion.

Class policy

**AI Usage:** AI may be used for grammatical and organizational revisions in this class. However, we strongly discourage students from relying on it for other purposes. AI-generated work often lacks originality, may include fabricated sources, and can appear monotonous, all of which can negatively impact your final grade.

**Plagiarism:** Plagiarism in any form is strictly prohibited. We will define plagiarism in class. First-time violators will receive a warning, while repeat offenders will receive a zero on their assignments.

**Late Submission and Absence:** Late submissions and absences are only accepted with formal documentation, such as the proof from the Department of Intercollegiate Athletics or the Center for Accessible Education. Students facing difficulties are encouraged to seek support from CAE ([https://cae.ucla.edu](https://cae.ucla.edu/)) to ensure equal learning opportunities.

**Inclusivity:** As a seminar course, students will engage in frequent discussions and interactions throughout the ten weeks. Please be respectful, welcoming, and inclusive to all classmates. If you experience or witness any behavior that feels unwelcoming or inappropriate, please reach out to me for support. You may also seek assistance from the campus Diversity, Equity, and Inclusion (DEI) office.

Weekly Schedule

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| **Week 1** | **Course overview**  Course overview, what is archaeology and paleontology? |
| **Week 2** | **Principles in archaeology and geosciences**  Field trip on Saige hill, first assignment explanation, and lecture on principle in archaeology and biology |
| **Week 3** | **Conservation biology**  Lecture on conservation biology, weekly reading discussion, and first assignment presentation  Reading:  1. Wildlife Conservation, Safari Tourism and the Role of Tourism Certification in Kenya: A Postcolonial Critique (Jack and Ariel)  # first assignment due |
| **Week 4** | **Ancient data and habitat loss**  Lecture on Taiwanese archaeology, weekly paper presentation/discussion  Reading:  1. Nineteenth-century collapse of a benthic marine ecosystem on the open continental shelf (Sean and Hector)  2. New genus of extinct Holocene gibbon associated with 2 humans in Imperial China (also read news <https://www.washingtonpost.com/news/speaking-of-science/wp/2018/06/21/this-ancient-chinese-tomb-held-a-royal-her-extinct-ape-and-a-warning/>) (Bhavesh, Ziqian) |
| **Week 5** | **Ancient data, invasive species, and climate changes**  Weekly presentation/discussion, 2nd assignment explanation.  Reading:  1. Marine biological responses to abrupt climate change in deep time (Priya, Mati)  2. Ocean temperature drove changes in the mesopelagic fish community at the edge of the Pacific Warm Pool over the past 460,000 years (Jared, Sam)  3. Rehearsing the Anthropocene in microcosm The palaeoenvironmental impacts of the Pacific rat (*Rattus exulans*) and other non-human species during island Neolithization (Ryan, Chase) |
| **Week 6** | **Ancient data and overexploitation**  Weekly presentation/discussion. Lecture on an East Asian case.  3rd assignment explanation  Reading:  ​​1. Human Impacts on Ancient Marine Ecosystems (Sid, Alexandra)  2. Seals, whales and the Cenozoic decline of nautiloid cephalopods (can expand on *Nautilus pompilius* fishing and population decline in the Philippines: A comparison with an unexploited Australian Nautilus population as well) (Skye, Jan)  # 2nd assignment due |
| **Week 7** | **Conservation paleontology: so where are we now?**  Weekly presentation/discussion. 4th assignment explanation.  Reading:  1. What is conservation paleobiology? Tracking 20 years of research and development (Jameson, Shreya)  2. Native American impacts on fire regimes of the California coastal ranges (and the news arguing around the 2025 fire, e.g. <https://laist.com/news/climate-environment/fact-check-could-brush-clearance-have-prevented-the-palisades-fire>) (Vidya, Lauren)  # 3rd assignment due |
| **Week 8** | **Other themes**  Evolution  lecture delivered by guest scholar  #4th assignment draft due |
| **Week 9** | Memorial Day, no class |
| **Week 10** | **Final project**  Finral presentation  #4th assignment revision due |

Assignment rubric

**Week 2 Introducing a site (Assignment 1) 10 points**

Around the world, many famous fossil/archaeological sites are preserved as national parks, museums, and heritage sites. These locations hold invaluable biological information that helps us understand the history of evolution, climate change and its environmental impacts, and human interactions with both ancient and modern species.

For Assignment 1, you will choose one of the designated sites and research its significance using scholarly sources, government publications, and, if applicable, your own experiences. Your paper should summarize the history of the site, its scientific importance, its impact on and engagement with local communities, and any other relevant information that would be helpful for those interested in visiting or learning about the site.

The writing goals of this assignment are to help students develop research skills, practice summarizing scholarly work, and learn how to effectively synthesize information for their readers. The disciplinary goals are to encourage students to explore world-famous fossil/archaeological sites that they may visit in the future.

Fossil sites: Petrified Forest, La Brea Museum, Dinosaur National Monument, Burgess Shale, Chengjiang fossil site, Nilpena Ediacara National Park, Wadi al Hitan, Wheeler shale, Neanderthal Museum, Green river formation, Chiteinomori Museum, Solnhofen, Nihewan museum,

# Format: typed, single-spaced, 1-2 page, 1-inch margins. In-text citations are not required for this assignment, but you may put a bibliography at the end.

This assignment will be evaluated based on creativity (4 points), structure (3 points), and grammar (3 points). For originality, consider how you can engage your classmates and make them interested in this place through your introduction. A suggestion to improve your structure and grammar is to let someone review your work before submission. A good essay has a clear structure, with each paragraph conveying only one main point, and ideas flowing logically without jumping back and forth.

For grammar assistance, you can contact the Writing Center.

**Week 5 Research proposal or catalog outline (Assignment 2) 10 points**

In class, we discussed inductive and deductive approaches to forming a paper. The former is more descriptive, while the latter focuses on hypothesis testing.

For Assignment 2, you will need to formulate a research question related to paleontology and zooarchaeology or paleoethnobotany, develop a hypothesis, and outline how to test it. The goal of this assignment is to help you practice writing a hypothesis-testing question and structuring your argument. It will also give you an opportunity to critically engage with the papers you are reading. You will receive feedback one week after submission to help you prepare for your final project.

Alternatively, you may choose to outline a catalog for an exhibition relevant to the themes discussed in class. This outline should include the topic, the motivation behind creating the exhibition, a list of exhibits, and their significance. If your exhibition focuses on one or two specific sites, be sure to explain their main values.

Next week, we will review your outlines individually to ensure they are logically strong and well-structured.

# Format: typed, single-spaced, 1-2 page, 1-inch margins.

#This assignment is evaluated based mainly on originality and structure.

**Week 6 Bibliography (Assignment 3) 5 points**

This week, we demonstrated how to use reference management software.

For this assignment, you will compile a list of ten or more references that you find interesting and relevant to the course content. Along with each reference, provide a one- to two-sentence summary of its main focus. You will also need to generate a bibliography using Mendeley, EndNote, or another reference management tool.

The goal of this assignment is to help you practice managing references efficiently. This skill will be beneficial for completing the final project without spending excessive time re-reading articles or manually formatting the bibliography. Additionally, mastering reference management now will be valuable as you engage with more research in the coming years.

#This assignment evaluation is based on completeness.

**Week 8/10 Research proposal or catalog draft and final work (Assignment 4) 10/25 points**

Throughout the course, we have explored various themes, such as: How do fish fossils reveal the consequences of global warming? How do skulls from Chinese tombs link back to erased biodiversity recorded only in iconography? How do the tar pits in LA provide insights into California’s environment before the arrival of Europeans?

For your final assignment, you will write a research proposal relevant to the themes covered in this class. Your proposal should include a research hypothesis, methodology, expected results, and potential contributions. You must cite at least 15 references.

Alternatively, you may create an exhibition catalog focused on a specific theme (e.g., "The Past and Even Earlier Past in La Brea"). This should include a short introduction (1–2 pages), a selection of 10 or more specimens, each accompanied by a 200 to 300 word overview, and three citations per specimen, including one source for the figure.

Ideally, your work should incorporate both fossils (over 10,000 years old) and archaeological remains (from archaeological sites).

As the final major assignment, this project is designed to help students develop a research proposal—a skill commonly required in upper-division courses. To complete this assignment, you will apply the skills learned over the past eight weeks, such as researching academic articles, summarizing and analyzing scholarly work, and writing hypothesis-driven research.

For those who prefer a non-traditional approach, drafting a catalog offers an engaging alternative while still meeting the assignment objectives. This option encourages students to creatively review course content while demonstrating their understanding of key concepts.

Evaluation is based on originality, structure, and content. For the second option, the originality is more about how the catalog narrates a good story and whether ur classmates buy it.

#Format:

Proposal: typed, double-spaced, 8–10 pages, 1-inch margins, 12 font. Has in-text citations and bibliographies.

Exhibition catalog: typed, double-spaced, 10-15 pages, 1-inch margin, 12 fonts. Has a cover, a 1-2 pages introduction/preface Must include 3 citations for each exhibit. Has in-text citations and bibliographies. (bibliography does not count in the ten pages)