**Assignment #2: Archaeological Dating Techniques**

**Worksheet: February 3rd at 12 Noon on Canvas**

**Class presentation: February 3rd during class (2:15-3:45)**

**Purpose:** The goal of this assignment is for you to a) learn about a particular archaeological dating technique and b) produce a worksheet and short class presentation about the dating technique, how it works, and its application in archaeology to teach your classmates and c) learn from your classmates about other commonly used dating techniques.

**Skills**: In completing this assignment you will have practiced the following skills:

1. researching a particular dating technique and identifying effective sources for your dating technique.
2. collaborating with classmates. This is not only a great skill [for any career](https://www.naceweb.org/career-readiness/competencies/career-readiness-defined/), but an essential skill for archaeologists whose work is by nature collaborative).
3. communicating the details of this archaeological dating technique in a way that is accessible to your classmates through a worksheet and presentation. It is important for archaeologists to be able to communicate the methods and findings from their research in a way that is comprehensible to their peers and the public. Oral and written communication is an important general skill for [any future career path you choose.](https://www.naceweb.org/career-readiness/competencies/career-readiness-defined/)

**Knowledge**: In the course of doing this assignment you’ll gain expertise in a particular dating technique (how it works, the types of objects that can be dated and how it is used in archaeology, the time period it dates, and the common pitfalls associated with that dating technique). By the end of class on February 3rd, you will have gained familiarity with 5 additional commonly used archaeological dating techniques from engaging with your peers’ assignments!

**Task:** For this assignment, you’ll be divided into small groups of about 5 students each and assigned a particular archaeological dating technique. You will work with your classmates to research this technique and teach the rest of the class about it.

*This assignment has two parts:*

1. *Creating and sharing a templated worksheet* that will act as a reference document for our class as they learn about your group’s archeological dating technique. This should be uploaded to Canvas by February 3 at 12 Noon.
2. *Teaching the class about your technique through a 5–7-minute presentation*, done during class on February 3. Your group:
   1. Should use your presentation to go through the questions in the worksheet, addressing the major questions (perhaps spending some more time on components that were not easily summarized).
   2. Can use this time to go in a little more detail or add/show visualizations.
   3. Can present in one of two ways: by preparing a short video or presentation in advance to be shown during class OR do your presentation live. \*\*If you decide to do a video in advance, please submit your video file to Dr. Carter in advance of class. The easiest way to do this is probably by posting the file [on your UO Dropbox account](https://service.uoregon.edu/TDClient/2030/Portal/KB/ArticleDet?ID=102716) and sending Dr. Carter a link.\*\*

*Archaeological Dating Techniques* you will be assigned include:

* Archaeomagnetic dating
* Dendrochronology
* Obsidian Hydration dating
* Potassium-Argon (K-Ar) dating
* Thermoluminescence dating
* Uranium-series dating

*Working as a group:* Your group can decide how you want to organize the work for this project*.* For example, all of you can divide the work for each component equally, or you can decide for people to work on particular parts of this more intensively (e.g., more introverted members of the group might want to help with preparing a “script” for the presentation while more extroverted members take charge during the class presentation).

*Archaeological Dating Techniques*

* Archaeomagnetic dating
* Dendrochronology
* Obsidian Hydration dating
* Potassium-Argon (K-Ar) dating
* Thermoluminescence dating
* Uranium-series dating

*Resources for researching your dating technique:* Below I’ve listed some references you can use to start investigating your technique. Normally, I would emphasize using peer-reviewed academic sources, but there are also quite a few quality websites that explain many of these techniques in more detail. However, you should be sure to use a reputable website. For example, Wikipedia can be a start, but some of the sources they reference might be more reliable. Several labs that practice these techniques have good webpages that explain how the techniques work. For other websites, consider the source and expertise of the person creating the website.

* [**Encyclopedia of Global Archaeology**](https://alliance-primo.hosted.exlibrisgroup.com/permalink/f/3uoa1r/CP71207121420001451)
* [**The Age of Everything: How Science Explores the Past**](https://alliance-primo.hosted.exlibrisgroup.com/permalink/f/3uoa1r/CP71189264240001451)
* [**Luminescence Dating in Archaeology, Anthropology, and Geoarchaeology: An Overview**](https://alliance-primo.hosted.exlibrisgroup.com/permalink/f/3uoa1r/CP71188404070001451)
* [**Encyclopedia of Scientific Dating Methods**](https://alliance-primo.hosted.exlibrisgroup.com/permalink/f/3uoa1r/CP71229599670001451)
* [**The Oxford Companion to Archaeology**](https://alliance-primo.hosted.exlibrisgroup.com/permalink/f/3uoa1r/CP7194944620001451)

à If you have questions or are feeling stuck with finding references or want to make sure a reference is reliable, please reach out to Dr. Carter!

*Some tutorials if you want to make a video for class:*

* [How to make a PowerPoint Video with narration](https://support.microsoft.com/en-us/office/record-a-slide-show-with-narration-and-slide-timings-0b9502c6-5f6c-40ae-b1e7-e47d8741161c?ui=en-us&rs=en-us&ad=us#officeversion=2013,_2016)
* [Recording a Zoom presentation](https://otl.du.edu/knowledgebase/tips-for-managing-multiple-student-zoom-presentations/) (this is from Duke University, but the general instructions apply)
* Using [Panopto](https://canvas.uoregon.edu/courses/161255/files/8351079/download?wrap=1) to record a presentation [here](https://canvas.uoregon.edu/courses/161255/pages/creating-a-voiceover-powerpoint-video?module_item_id=2580400) and [here](https://canvas.uoregon.edu/courses/161255/pages/recording-a-presentation-no-ppt-in-panopto?module_item_id=2580405).

**Criteria for success**: Your group will be graded on its ability to find appropriate sources with which to complete your worksheet (attached), comprehensively completing the worksheet, and creating a presentation that goes over the points from the worksheet (with additional opportunity for detail) so that your classmates understand how it works, the types of objects that can be dated and how it is used in archaeology, the time period it dates, and the common pitfalls associated with that dating technique. See grading rubric below for more specifics.

**How will you be graded**?

This project is graded out of 35 points (below) and makes up 15% of your total grade.

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|  | **Excellent** | **Fair** | **Poor** |
| **Worksheet: Description of technique and how it works**  **(5 points)** | Comprehensive, but succinct and clear discussion that explains how technique works.  4-5 points | Discussion is ambiguous or confusing  2-3 points | Much of the text is from another source. Unclear or inaccurate  0-1 point |
| **Worksheet: Objects being dated**  **(3 points)** | Comprehensive and accurate list of objects that can be dated with technique  3 points | Partial or incomplete list  2 points | Incomplete or inaccurate list  1 point |
| **Worksheet: Time periods**  **(3 points)** | Accurate description of time periods  3 points | Partial or inaccurate description of time periods  2 points | Inaccurate description of time periods  1 point |
| **Worksheet: Archaeological case study**  **(5 points)** | Comprehensive, but succinct discussion of a real archaeological example that exemplifies how technique is used.  4-5 points | Discussion is ambiguous and/or does not clearly relate to technique  2-3 points | Inaccurate description  1 point |
| **Worksheet: Problems**  **(5 points)** | Comprehensive, but succinct discussion of problems or drawbacks to technique.  4-5 points | Discussion is ambiguous or not comprehensive.  2-3 points | Discussion is inaccurate or missing  1 point |
| **Worksheet: References**  **(3 points)** | Reliable references listed using *American Antiquity* style  3 points | Some references are less reliable/reputable. Does not use *American Antiquity* style  2 point | Missing or incorrect references  1 point |
| **In-class presentation**  **(6 points)** | All components of the worksheet discussed, groups use presentation time to go into more detail on some components and/or provide some visual depictions examples. Group members work well together and divide up work equitably.  5-6 points | Only some portions of worksheet discussed or worksheet is read out loud with minimal additional discussion, description, explanation.  Group member work is uneven.  3-4 points | Only worksheet is presented with no additional discussion, description, explanation.  Group member work is uneven.  1-2 points |
| **Original research, grammar and formatting**  **(5 points)** | Worksheet and presentation components consist of original work in group members own words. No components are plagiarized or borrow heavily from other sources.  Worksheet contains no typos/grammar errors  4-5 points | Worksheet and presentation components consist of original work in group members own words, but some components  borrow heavily from other sources.  Worksheet contains few typos/grammar errors  3-4 points | Worksheet and presentation components contain many components that are plagiarized or borrow heavily from other sources.  Worksheet contains many typos/grammar errors  1-2 points |