

**Anthropology 9112A/  
Anthropology 4493F (Special Topics)  
Topic: “i”-ing the Past: Digital Archaeology and Digital Heritage  
Fall 2017  
Course Outline**

**Mondays 1:30-4:30, Rm: SSC 3315**

Instructor: Dr. Neal Ferris  
Office: SSC 3215  
Email: [nferris@uwo.ca](mailto:nferris@uwo.ca)  
Office Hours: Mon. 9:30-1:00

Please note that I am cross appointed with the Museum of Ontario Archaeology, and work over at Sustainable Archaeology other days during the week (1600 Attawandaron Road off of Wonderland near Fanshawe Park Road). *So if you need to meet with me other than Mondays during office hours or after class, please email me to see if we can schedule a time to meet at the Museum, or, if mutually convenient, in the department.*



An application is required for undergrad students to take this course and can be found on our website:  
[http://anthropology.uwo.ca/undergraduate/course\\_information/4000\\_level\\_courses.html](http://anthropology.uwo.ca/undergraduate/course_information/4000_level_courses.html).

### **Welcome... an Introduction**

This course will explore the implications of digitizing the practice of archaeology, and interacting with the past digitally. What are the possibilities and issues when a material, tangible past is interacted with and “handled” intangibly and online? What does it mean for archaeological datasets to be “borne digitally”? How does this digital world change methodologies, analyses, and even how we interpret and think about the archaeological heritage? What are the implications for understanding the past and making the archaeological heritage accessible beyond archaeology, as it becomes engaged with, challenged, and re-imagined online and within social media and a global digital community?

The intent of this course is to understand the implications of a digital archaeology, and of a digital heritage arising from that archaeology. It is **NOT** a how-to course, and digital novices as well as seasoned veterans should easily manage the expectations for this course, including the hands-on experiences using digital equipment.

**PLEASE NOTE:** This is a cross listed, graduate/undergraduate course. To reflect that difference, graduate students will be expected to undertake additional assignments, and the value of some assignments will differ. As this is both a graduate student course and advanced topics course for undergraduates, the course will operate as a discussion seminar, combined with presentations and an open conversation. So your participation in discussions, questions you ask of me or whoever is presenting that day, etc., will all contribute to your participation mark. But also, keep in mind that a course on Digital Archaeology is rather open ended... easier to define what it is not than what it is. So to make this work you need to come to class prepared with questions and observations about the day's readings and focus. This is a dialogue we'll be having, NOT a text thread or me talking and you liking or not. Mutual participation will make the class more dynamic, and end up being reflected in the final mark you receive!



Upon successful completion of this course, students will be able to:

- 1) Synthesize the history of how digital technologies have been used in archaeology, and the unique opportunities those technologies provide for research;
- 2) Communicate the implications of an archaeology made digital, as a science, as a social media, and as a heritage consumed online, based on your exploration of what making archaeology and heritage digital encompasses, and as part of social media expectations for the course;
- 3) Synthesize the key issues and debates inherent in digitizing archaeology, from issues of accuracy, authenticity, and authority in presentation; challenges of making meaning from "big data"; negotiating cultural intellectual property issues inherent in 3D models, immersive environments, and 3D printing; potential of gaming, AR and VR as cultural heritage learning and empathy; and alternate archaeologies arising from re-purposing digital data;
- 4) Identify the limitations and real risks involved in embracing an archaeological heritage dependent on hardware and software that are so transitory and so quickly become obsolete in a profession whose aim in part is to preserve the record of the past;
- 5) Apply the principles of an informed and reflexive digital archaeology through hands-on use of digital technologies and media that can preserve, convey or re-imagine the archaeological record as heritage.

**Course Evaluation:**

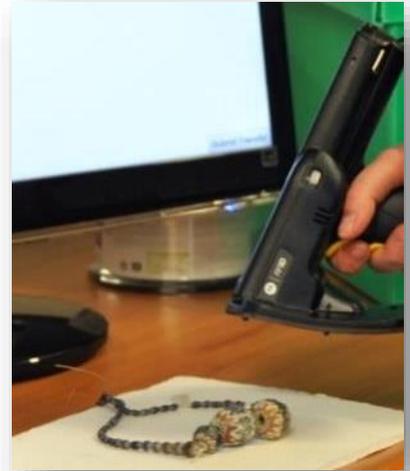
Relevant dates and the weighting of each assessed component are as follows (There is NO final exam):

Assessed Component of Final Grade	Page Length/# Under-graduates	Page Length/# Graduates	Due Date	Percent of Final Grade Undergraduate	Percent of Final Grade Graduate
Class Participation	na	na	ongoing	10%	10%
Contributions to Class blog	Min. 1 blog; Min. 3 comments	Minimum 3 blogs; Min. 3 comments	ongoing	10%	15%
Archaeology Communicating Across Social Media	3-4	NA	Sept. 25	15%	na
Webpage reviews – Fantastical/Alternative archaeology pages	3-4; based on <b>2</b> websites or equivalent	3-4; based on <b>3</b> websites or equivalent	ongoing presentations from October on (email selections by Sept 25)	15%	10%
Leading Class in Readings Discussion	na	Add'l readings due 1 wk before	ongoing	na	15%
Digital Archaeology Project	5-6	5-6	Topic chosen by start of Fall reading week; Presentations on November 13th	20%	25%
Final Paper/Project			Proposal: Oct 30th; Deadline: Dec 10 (undergraduate); Dec 31 (grad)	30%	25%

**Submitting Assignments:** My preference is NOT to receive hard copies of your assignments. I will accept assignments emailed to me as Word (.doc or docx) or Google docs files.

1. **Class Participation (10% for all):** This mark will be based on your engagement in class discussions, and in discussing presentations by others in the class. I will expect your ability to participate and help shape the direction we follow in class to reflect whether you are an undergraduate, MA, or PhD student.

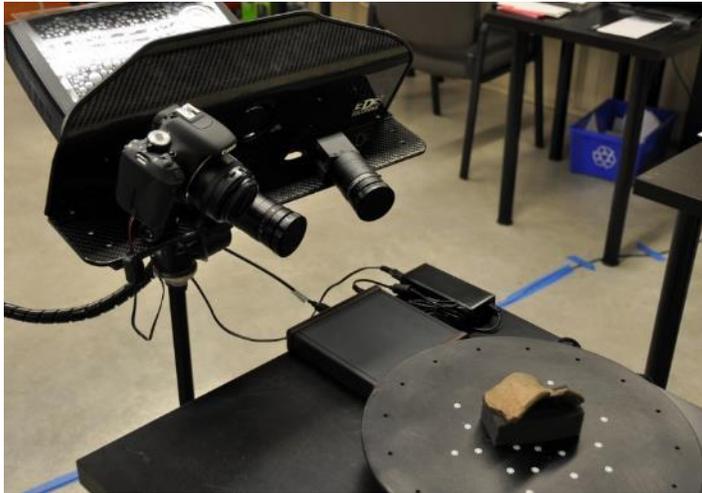
2. **Blogging Digital Archaeology (10% undergraduate, 15% graduate):** I have a blog page set up for this course. All undergraduate students are expected to contribute at least one blog to the page, and graduate students at least 3 blogs, at some point over the duration of the course. I also expect everyone to comment on other posts a minimum of 3 times over the duration of the course. These posts can be on any or all of the subject of the most recent class, readings for an upcoming class, in-class presentations, preparing for a presentation, something you tripped across online, something from another course you want to raise as relevant, my tendencies and foibles or those of classmates, or whatever happens to be on your mind and can fall somewhere, somehow within the box of a “digital archaeology/heritage.” You need to discuss the topic in a coherent, reflexive way for the post to count (you are welcome to just post humour or link without comment, but those won’t count to your posts). You are also free to exceed minimums, if you’d like. Commentaries don’t have to be long, don’t have to follow formal paper or citation requirements, but should be written to either convey opinion or information, or share, link, or comment on something you found of relevance. And of course all posts and comments need to be respectful of each other’s perspective. I will remind everyone a couple of times to participate in the blog, but I expect you to make it a regular part of your course prep, in part because I will only be using a bare bones OWL site for this course, and instead will use the course blog to include course announcements and other info!



The address for the blog is: <http://i-ingthepastarch.blogspot.ca/> I will leave a few entries up from earlier courses, to give you a sense of the range and nature of posts that worked before, and will ensure it is updated before first class. **NOTE:** that I will need your email addresses to allow you to contribute to the blog.

3. **Assignment: Archaeology Communicating Across Social Media (15% Undergraduate Students ONLY):** Undergraduates will generate a brief report, due September 25<sup>th</sup>, on how archaeology is communicated across social media. This report is to be an analysis on how archaeology is portrayed, and how people engage with that portrayal. I would like you to choose one of Facebook or Twitter, and search the string: “Archaeology Discovery.” Then review the range of articles, posts, pictures, comments, etc. that appear over a week from Public Posts/Tweets. There should be plenty to play with, so part of the assignment is for you to figure out how to manage the data. I want you to analyse the messaging of the posts, especially how archaeology tends to be conveyed, and how people in commentaries respond to the posts; i.e., positive or negative, science or history, personal or institutional, etc. I also want you to find a way to summarize the data you’ve assembled (how many are from news services, blogs, etc., how many shares/re-tweets, comments, likes, etc.). Then write a brief (3-4 pages) assessment of your impressions undertaking the study... do not summarize posts/tweets... and your assessment of what the principal and secondary messaging/emotional sense of what archaeology appears to be from your dataset.

4. **Assignment: Websites review (Undergraduate students 15%; Graduate students 10%):** The one certainty in the topic of digital archaeology is that there is an endless supply of web pages, blogs, twitter feeds, etc., from which to explore the topic. The other certainty is that, in an age where facts and “the truth” are just someone else’s opinion, readily filtered out from personal exposure through simple “featured” or “similar posts for you” algorithms, ALL understandings of the past, no matter how fantastical, is accommodated online and consumed by like minded audiences. Likewise, there



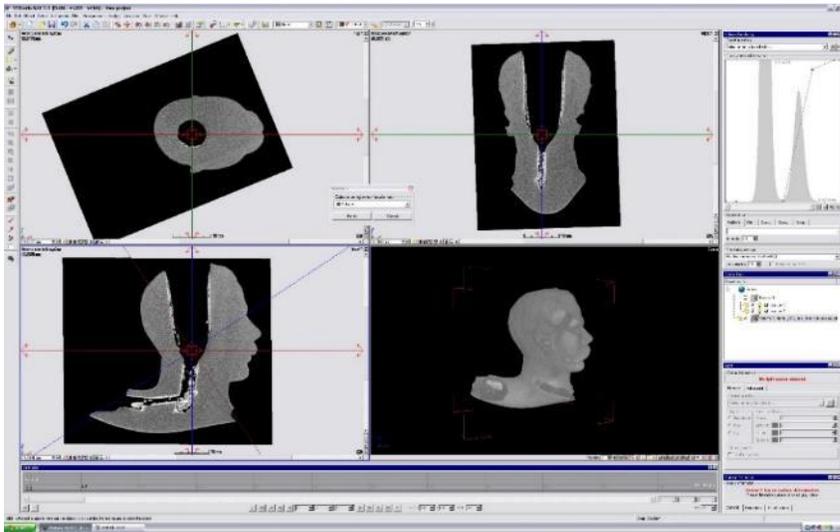
are endless blogs, posts or pages devoted to debunking those opinions. In this assignment, students will review web sites (2 for undergraduates, 3 for graduates; note that I will consider Reddit topics or Instagram accounts if there is enough to critically evaluate) that share a common theme under a broader, fantastical archaeology framework. These can be relatively benign viewpoints, such as from metal detectors or artifact collectors, and their assertion that they are legitimate researchers, to pages devoted to

beliefs of aliens, giants, or alternative explanations of archaeological phenomenon or heritage values, to conspiracy-driven refutations of archaeological “proof.” Note: For this exercise we are not exploring heritage-based interpretations of the past by communities arising from oral traditions, or written document records that refute archaeology on the basis of historical record accuracies.

Your task will be first to come up with websites. My preference is that your websites reflect a common theme that “makes sense” and links the pages somehow. You then will need to CRITICALLY EVALUTE how these pages engage with the online world: who do they imagine their audiences to be vs who their audience actually is; what is their stated messaging vs unintended messaging; Do they facilitate discussion and research, assert a clear agenda, or just provide interesting/promotional pages. I am looking here for a critical analysis of content and messaging, within the context of what we are talking about in class discussions. I am NOT looking for you to evaluate the general usability or appearance of the web pages, or summarise their content. So you are less analysing the content, and more the intent behind the content. More importantly, you need to select web pages that will best serve your critical analysis, so thinking through your choices and how they compare to the other pages you are evaluating is an important part of the assignment.

Everyone will need to research and select the pages they will be presenting on, **and email me of their choices by September 25th**, explaining what it is about the pages you want to focus on.

Presentations will begin starting the following class and be scheduled into classes (1 or 2 a class) for the remainder of the course. Presentations should be 15-20 minutes long, followed by a class discussion. You will need to generate a PowerPoint/Prezi or other form of presentation of the pages and points you wish to highlight (you can go “live” to the page as well, but embed the URLs into the



presentation, to help order your presentation, rather than working solely from the web browser). Following your presentation, you will need to submit a short written report (3-4 pages) by the following week. The written component **MUST** not summarise your presentation. Rather it should evaluate the main issues that came to light in your review **AND** in the class discussion, and provide your assessment of these issues.

5. **Leading Class Discussion on Readings (15% graduate students ONLY):** Over the duration of the course, graduate students will be expected to each choose a scheduled topic for a week’s class discussion, provide the class with 1-2 additional readings selected to explore dimensions of the topic [you **MUST** use scholarly sources or critical blogs, and they must not have been previously assigned to the course], and then you will present on the readings/lead the class in discussion. You will be expected to generate a presentation (Powerpoint, Prezi, video, etc.) on the key themes related to the topic that have arisen from the readings, in order to start the class discussion off from there. Your introduction to the readings cannot be a summary of the articles themselves... rather you are



expected to draw out key themes the readings collectively raise. Your introductory presentation should be no more than about 20 minutes long. Feel free to bring in additional information, case studies, video clips, structure your presentation as a debate, bring in cookies or prizes to get people talking (!), etc., to beef up your discussion of the topic. You’ll be marked on your presentation, your choice of additional readings, your ability to flag key issues, your ability to generate discussion, and your ability to help lead in that class discussion. Much of the literature for these topics is available, not surprisingly, online, so make sure your additional readings are accessible online.

The only way for your discussion to be effective is if everyone reads the assigned readings for the class. That means you must have those readings posted and available a week BEFORE your class. Students will begin leading class discussions by September 25<sup>th</sup>. Also, depending the size of the class we may break up the class discussion between two students for some classes, who would then each focus on distinct dimensions of the readings.

6. **Digital Project (20% undergraduate; 25% graduate):** This project will consist of students doing “something” digital archaeology related. I want to shape this as much as possible around your interests and abilities, and resources available to us. We will discuss the options in the first class. Options can include: a) Developing an app concept for a smart phone or tablet that delivers a digital archaeology need (e.g., for inspiration see <http://arch-pad.blogspot.ca/>). There are several apps for making mock-ups, such as the free POP app (<https://popapp.in/>), to more complex design programs that provide you with the ability to develop working wireframes, such as Balsamiq (<http://www.balsamiq.com/>). b) Working at Sustainable Archaeology using our equipment to create a 3D model of an artifact or of a 3D full colour print of a to-scale or scaled up version of an artifact ([www.sustainablearchaeology.ca](http://www.sustainablearchaeology.ca)). c) Developing a proposal for a geo-referenced Augmented Reality-based exhibit or interaction for visitors going to the Museum of Ontario Archaeology (you know, like Pokemon Go: see <https://www.theguardian.com/technology/2017/aug/30/ar-augmented-reality-apple-google-smartphone-ikea-pokemon-go>), and develop a preliminary “Aura” through Aurasma (<https://www.aurasma.com/>). d) Work with SA staff to help shape the way we deliver online 3D models mesh free (<https://bloomce.com/#/>). I’m also open to other options (e.g., creating a crowd-sourced webpage, photogrammetry or drone applications, or other such project). Depending on your interest, I can certainly bring in people who can help train you in the topic you would like to do. Or you may have the required skillsets already, in which case the sky is the limit (literally for Drones)!

I will expect to explore with you your particular interests and what you want to do. We would then set up either some mini in-class training sessions with folks brought in to help us out, or training sessions at Sustainable Archaeology. By the start of Fall Reading week and Thanksgiving (October 9<sup>th</sup>), you need to have finalized what you will be doing and informed me (having discussed with me first the idea so I can give you a sense of how viable it is). Our class on November 13<sup>th</sup> will be given over to a mini symposium of you reporting for 5-10 minutes on the results of your project, focussing on what worked and what didn’t, what (or who!) the obstacles were to success, etc. If you were developing an app or possible AR exhibit, then present your project as a “pitch,” since you will have developed the project to a concept stage, rather than completed the end project. You would also be submitting at that time a 5-6 page report reviewing your experiences and challenges.

6. **Final Paper or Project (30% undergraduate, 25% graduate):** You have a lot of latitude for the final assignment. Broadly speaking, you can write a paper, or you can undertake a digital archaeology project. For the former, you will need to write a paper of 1500-2000 words long (undergraduate), or 3000-4000 words long (graduate) on a topic broadly related to digital archaeology/digital heritage, that is a critical assessment of practice and/or contemporary ethnical issues facing a digital archaeology (whose access, who’s past, who owns the right to replicate the past, collections or information crises; critical assessment of 2-3 online archaeological information repositories; is immersive environments/3D modelling “accurate” or “authentic,” a lot or a little; legacy collections/legacy data, virtual repatriation, intellectual property rights of 3D models, etc.). You have wide latitude here, but you need to pick a topic that you can easily cover off in a short essay, and you need to know that there is enough literature out there to help you get a handle on the topic. By **October 30<sup>th</sup>** I will want you to hand in a one page statement of your topic for your paper, stating what you hope to explore, and include 6-7 references (at least 4 of which will be scholarly

publications, not blogs or online pages). I recommend you informally discussing with me beforehand what you are thinking of.

If you wish to do a digital project, I want you to meet with me during office hours in October to talk through what you would like to do (we can kick around some ideas and I can point you to possibilities). You will then need to submit a one page proposal on **October 30<sup>th</sup>**. The project you do can be anything that fits digital archaeology, and is either tied to your in-class digital project (taking it forward to the next stage of development/implementation), or a new one. The project is yours to conceive of and design, but I expect your one page proposal to have been well developed and feasible by the time you submit it. That will include laying out what the project goals are, what resources or digital data you will need, what anticipated challenges you face in making it happen (e.g., what kind of software or equipment will you need to develop skills on), who is going to help you, and what the final product will be for me to evaluate. Basically, you have to convince me that what you are going to do is do-able within the constraints of term work, other courses, etc. If I think it needs some revising, I'll ask you to do so. If it looks too unorganized or challenging to accomplish by end of October, I'll suggest you shift to writing a paper.

**The paper/project will need to be completed for undergraduates on December 10<sup>th</sup> (Absolutely NO extensions possible at that point – marks need to be in the next day for you!). For graduates, you will need to be completed and submitted by December 31<sup>st</sup>.**

## COURSE SCHEDULE AND READINGS

**Readings will be accessible online. Note: Readings will be augmented by students leading the class discussion as required**

### **1. Sept 11<sup>th</sup>: Introduction to Course - Defining Digital Archaeology... sort of**

We will go over the course outline, discuss course expectations, and review assignments. We will review the various options people may wish to pursue their digital project on. We will also discuss just what a “Digital archaeology & Digital heritage” means to each of us.

### **2. Sept 18<sup>th</sup>: Some Context and Introspection – Readings:**

Beale, Garth and Paul Reilly

2014 After Virtual Archaeology: Rethinking Archaeological Approaches to the Adoption of Digital Technology. *Internet Archaeology* 44. <https://doi.org/10.11141/ia.44.1>

Caraher, William

2016 Slow Archaeology: Technology, Efficiency, and Archaeological Work. In *Mobilizing the Past for a Digital Future: The Potential of Digital Archaeology*, edited by Erin Averett, Jody Gordon and Derek Counts, pp. 421-437.

[http://dc.uwm.edu/cgi/viewcontent.cgi?article=1017&context=artist\\_mobilizingthepast](http://dc.uwm.edu/cgi/viewcontent.cgi?article=1017&context=artist_mobilizingthepast)

Dallas, Costis

2009 From Artefact Typologies to Cultural Heritage Ontologies: Or, an Account of the Lasting Impact of Archaeological Computing. *Archeologia e Calcolatori* 20: 205-221.

[http://soi.cnr.it/archcalc/indice/PDF20/17\\_Dallas.pdf](http://soi.cnr.it/archcalc/indice/PDF20/17_Dallas.pdf)

Huggett, Jeremy

2015 A Manifesto for an Introspective Digital Archaeology. *Open Archaeology* 2015 1: 86-95.

<https://www.degruyter.com/view/j/opar.2014.1.issue-1/opar-2015-0002/opar-2015-0002.xml>

Kansa, Eric

2011 Introduction: New Directions for the Digital Past. In *Archaeology 2.0: New Approaches to Communication and Collaboration*, edited by E Kansa, S. Kansa and E. Watrall, pp. 1-26. Costen Institute of Archaeology at UCLA. **NOTE:** Feel Free to skip over the chapter summaries. **Available online at:** <http://www.escholarship.org/uc/item/1r6137tb>

Shanks, Michael, and Christopher Witmore

2012 Archaeology 2.0? Review of Archaeology 2.0: New Approaches to Communication and Collaboration. *Internet Archaeology, Issue 32*. **Available online at:** <http://intarch.ac.uk/journal/issue32/index.html>. Scroll down to reviews.

### **3. September 25<sup>th</sup>: Social Media and Open Access**

#### **NOTE: Your Internet Review Proposal Due**

Beck, Anthony

2013 Open Access to Heritage Resources – Risk, Opportunity, or Paradigm Shift? *Archäologie und Informationssysteme* pp. 40-48. **Available online at:** [http://www.landesarchaeologen.de/fileadmin/Dokumente/News/NI\\_Archaeologie\\_und\\_Informationssysteme\\_Arbeitsheft42.pdf#page=40](http://www.landesarchaeologen.de/fileadmin/Dokumente/News/NI_Archaeologie_und_Informationssysteme_Arbeitsheft42.pdf#page=40)

Huggett, J.

2012 Promise and Paradox: Accessing Open Data in Archaeology. Proceedings of the Digital Humanities Congress 2012 (more a blog post than a paper). **Available online at:** <http://www.hrionline.ac.uk/openbook/chapter/dhc2012-huggett>

Mauthner, Natasha, and Odette Parry

2013 Open Access Digital Data Sharing: Principles, Policies and Practices. *Social Epistemology* 27(1): 47-67. **Available online through Western Libraries electronic catalogue**

Morgan, Colleen, and Stuart Eve

2012 DIY and Digital Archaeology: What are You Doing to Participate? *World Archaeology* Vol 44, no 4. **Available online through Western Libraries electronic catalogue**

Perry, Sara, and Nicole Beale

2015 The Social Web and Archaeology's Restructuring: Impact, Exploitation, Disciplinary Change. *Open Archaeology* 2015: 1:153-165. <https://www.degruyter.com/view/j/opar.2014.1.issue-1/opar-2015-0009/opar-2015-0009.xml?format=INT>

### **4. October 2<sup>nd</sup>: Sustainable Archaeology, 3D Scanning and Digital CT**

This week's class will be held at Sustainable Archaeology, which is at the Museum of Ontario Archaeology (1600 Attawandaron Road). Students will get a tour of the facility and imaging equipment, and have short sessions 3D scanning artifacts, modeling those scans, and/or scanning on the facility MicroCT scanner. This is intended to be a hands on class to give you a taste for using this equipment and working through the software challenges of the equipment. For those who think they might like to do a final project using this equipment, this will be an opportunity for you to become familiar with, and ask about, your projects with SA staff.

### **October 9<sup>th</sup>: No Class, Thanksgiving**

**BUT NOTE: Selection of your digital project should be finalized by today, so you can work on it over Fall reading week.**

### **5. October 16<sup>th</sup>: Data Born Digitally In, On, and Above the Field**

Barber, Ian, Justin Maxwell & Richard Hemi

2014 Growing Images: Generating 3D Digital Models to Investigate Archaeological Moriori Carvings on Live Trees. *World Archaeology* 46:1, 63-77. **Available through Western Libraries electronic catalogue**

Campana, S.

2017 Drones in Archaeology: State of the Art and Future Perspectives. *Archaeological Prospection*. **Available through Western Libraries electronic catalogue**

Earley-Spadoni, Timothy

2017 Spatial History, Deep Mapping and Digital Storytelling: Archaeology's Future Imagined Through an Engagement with the Digital Humanities. *Journal of Archaeological Sciences* 84, August: 95-102. **Available through Western Libraries electronic catalogue**

Jackson, Sarah, Christopher Motz and Linda Brown

2016 Pushing the Paperless Envelope: Digital Recording and Innovative Ways of Seeing at a Classic Maya Site. *Advances in Archaeological Practice* 4(2): 176-191. **Available through Western Libraries electronic catalogue**

Spigelman, Matthew, Ted Roberts and Shawn Fehrenbach

2016 The Development of the PaleoWay Digital Workflows in the Context of Archaeological Consulting. In *Mobilizing the Past for a Digital Future: The Potential of Digital Archaeology*, edited by Erin Averett, Jody Gordon and Derek Counts, pp. 399-418. [http://dc.uwm.edu/arthist\\_mobilizingthepast/17/](http://dc.uwm.edu/arthist_mobilizingthepast/17/)

## 6. October 23<sup>rd</sup>: Archaeological Databases, Big Data, Informatics and Beyond

Agbe-Davies, Anna, Jillian Galle, Mark Hauser and Fraser Neiman

2014 Teaching with Digital Archaeological Data: A Research Archive in the University Classroom. *Journal of Archaeological Method and Theory* 21(4): 837-861. **Available through Western Libraries electronic catalogue**

Cooper, Anwen, and Chris Green

2017 Big Questions for Large, Complex Datasets: Approaching Time and Space Using Composite Object Assemblages. *Internet Archaeology* 45. <https://doi.org/10.11141/ia.45.1>

Eiteljorg, Harrison II

2012 Digital Data in Archaeology: The Database. *The CSA Newsletter* 25(2). **Available Online at:** <http://csanet.org/newsletter/fall12/nlf1203.html>

McCoy, Mark

2017 Geospatial Big Data and Archaeology: Prospects and Problems Too Great to Ignore. *Journal of Archaeological Science* 84 (August): 74-94. **Available through Western Libraries electronic catalogue**

Labrador, Angela

2012 Ontologies of the Future and Interfaces for All: Archaeological Databases for the Twenty-First Century. *Archaeologies* 8(3): 236-249. **Available through Western Libraries electronic catalogue**

Seifert, Christin, et al

2017 Ubiquitous Access to Digital Cultural Heritage. *Journal on Computing and Cultural Heritage* 10(1): article 4. **Available through Western Libraries electronic catalogue**

## 7. October 30<sup>th</sup>: 3D Scanning and Printing Models

### NOTE: Final Project/Paper Proposal Outline Due

Delpiano, Davide, Marco Peresani and Andreas Pastoors

2017 The Contribution of 3D Visual Technology to the study of Palaeolithic Knapped Stones Based on Refitting. *Digital Applications in Archaeology and Cultural Heritage* 4:28-38. **Available through Western Libraries electronic catalogue**

Garstki, Kevin

- 2017 Virtual Representation: The Production of 3D Digital Artifacts. *Journal of Archaeological Method and Theory* 24(3):726-750. **Available through Western Libraries electronic catalogue**
- Olsen, Brandon, Jody Gordon, Curtis Runnels, Steve Chomyszak
- 2014 Experimental Three Dimensional Printing of a Lower Paleolithic Handaxe: An Assessment of the Technology and Analytical Value. *Lithic Technology* 39(3): 162-172. **Available through Western Libraries**
- Grosman, Leore
- 2016 Reaching the Point of No Return: The Computational Revolution in Archaeology. *Annual Reviews in Anthropology* 45:129-145. **Available through Western Libraries electronic catalogue**
- Tsiafaki, Despoina, et al
- 2016 Virtual Reassembly and Completion of a Fragmentary Drinking Vessel. *Virtual Archaeology Review* 7(15): 67-76. <https://polipapers.upv.es/index.php/var/article/view/5910/6831>

### 8. November 6<sup>th</sup>: Visualization and Virtual Archaeology

Bendicho, Victor Manuel

- 2013 International Guidelines for Virtual Archaeology: The Seville Principles. In *Good Practice in Archaeological Diagnostics*, edited by C. Corsi, B. Slapsak and F. Vermeulen. Pp. 269-283. Springer Books. **Available through Western Libraries electronic catalogue**

Carter, William Michael

- 2017 Getting to the Point: Making, Wayfaring, Loss and Memory as Meaning in Virtual Archaeology. *Virtual Archaeology Review* 9(16): 97-102. <https://polipapers.upv.es/index.php/var/article/view/6056>

Forte, Maurizio

- 2014 3D Archaeology: New Perspectives and Challenges – The Example of Catalhoyuk. *Journal of Eastern Mediterranean Archaeology and Heritage Studies*. 2(1): 1-29. **Available through Western Libraries electronic catalogue**

Jeffry, Stuart

- 2015 Challenging Heritage Visualization: Beauty, Aura and Democratisation. *Open Archaeology* 1: 144-152. <http://radar.gsa.ac.uk/3761/1/opar-2015-0008.pdf>

Reilly, Paul, Stephen Todd, and Andy Walter

- 2016 Rediscovering and Modernising the Digital Old Minster of Winchester. *Digital Applications in Archaeology and Cultural Heritage* 3(2): 33-41. **Available through Western Libraries electronic catalogue**

Watterson, Alice

- 2015 Beyond Digital Dwelling: Re-Thinking Interpretive Visualization in Archaeology. *Open Archaeology* 1(1). <https://www.degruyter.com/view/j/opar.2014.1.issue-1/opar-2015-0006/opar-2015-0006.xml>

### 9. November 13<sup>th</sup>: Presentations on Digital Projects

#### 10. November 20<sup>th</sup>: Digital Archaeological Communities

Haukaas, Colleen and Lisa Hodgetts

- 2016 The Untapped Potential of Low-Cost Photogrammetry in Community-Based Archaeology: A Case Study from Banks Island, Arctic Canada. *Journal of Community Archaeology & Heritage* 3(1): 40-56. **Available through Western Libraries electronic catalogue**

Laracuate, N.

2012 Public Archaeology 2.0: Facilitating Engagement with Twitter *AP: Online Journal in Public Archaeology*. Vol. 2: 81-99. [http://www.arqueologiapublica.es/previous\\_issues.html](http://www.arqueologiapublica.es/previous_issues.html) Note: you have to register to access articles.

Means, Bernard

2015 Promoting a More Interactive Public Archaeology: Archaeological Visualization and Reflexivity Through Virtual Artifact Curation. *Advances in Archaeological Practice* 3(3): 235-248. **Available through Western Libraries electronic catalogue**

Richardson, Lorna-Jane

2013 A Digital Public Archaeology? Papers from the Institute of Archaeology, UCL. <https://pia-journal.co.uk/articles/10.5334/pia.431/>

Taylor, Joel, and Laura Gibson

2016 Digitization, Digital Interaction and Social Media: Embedded Barriers to Democratic Heritage. *International Journal of Heritage Studies* 23(5): 408-420. **Available through Western Libraries electronic catalogue**

### 11. November 27<sup>th</sup>: Other Ways of Knowing in a Digitized Archaeological Heritage

Carboni, Nicola, and Livio de Luca

2016 Towards a Conceptual Foundation for Documenting Tangible and Intangible Elements of a Cultural Object. *Digital Applications in Archaeology and Cultural Heritage* 3:108-116. **Available online Western Libraries electronic catalogue**

Dawson, Peter, Richard Levy and Natasha Lyons

2011 'Breaking the Fourth Wall': 3D Virtual Worlds as tools for Knowledge Repatriation in Archaeology. *Journal of Social Archaeology* 11: 387-402. **Available online Western Libraries electronic catalogue**

Lyons, Natasha et al

2016 Sharing Deep History as Digital Knowledge: An Ontology of the Sq'ewlets website project. *Journal of Social Archaeology* 16(3): 359-384. **Available online Western Libraries electronic catalogue**

Ngata, Wayne, Hera Ngata-Gibson, and Amiria Salmond

2012 Te Ataakura: Digital *Taonga* and Cultural Innovation. *Journal of Material Culture* 17: 229-244. **Available online Western Libraries electronic catalogue**

Were, Graeme

2014 Digital Heritage, Knowledge Networks, and Source Communities: Understanding Digital Objects in a Melanesian Society. *Museum Anthropology* 37(2): 133-143. **Available online Western Libraries electronic catalogue**

### 12. December 4<sup>th</sup>: Digital Archaeology Beyond Archaeology: Issues to Think About

Colley, Sarah

2015 Ethics and Digital Heritage. In *The Ethics of Cultural Heritage*, edited by Tracy Ireland and John Schofield, pp. 13-32. Springer books. **Available through Western Libraries electronic catalogue**

Huffer, Damien and Shawn Graham

2017 The Insta-Dead: The Rhetoric of the Human Remains Trade on Instagram. *Internet Archaeology* 45. <https://doi.org/10.11141/ia.45.5>

Issac, Gwyneira

2011 Whose Idea was This? Museums, Replicas, and the Reproduction of Knowledge. *Current Anthropology* 55: 211-233. **Available online Western Libraries electronic catalogue**

Richter, Ashley, V. Petrovic, D. Vanoni, Steve Parish and F. Kuester

2014 Digital Archaeological Landscapes and Replicated Artifacts. In *Digital Heritage International Conference* volume 2. Pp. 569-572. **Accessible online at**

[https://www.academia.edu/5781033/Digital\\_Archaeological\\_Landscapes\\_and\\_Replicated\\_Artifacts\\_Questions\\_of\\_Analytical\\_and\\_Phenomenological\\_Authenticity\\_and\\_Ethical\\_Policies\\_in\\_Cyber\\_Archaeology](https://www.academia.edu/5781033/Digital_Archaeological_Landscapes_and_Replicated_Artifacts_Questions_of_Analytical_and_Phenomenological_Authenticity_and_Ethical_Policies_in_Cyber_Archaeology)

Thompson, Erin

2017 Legal and Ethical Considerations for Digital Recreations of Cultural Heritage. *Chapman Law Review* 20:153-176. Available through Western Libraries electronic catalogue

### **Western Standard Course Policies**

All students should familiarize themselves with Western's current academic policies regarding **accessibility, plagiarism and scholastic offences, and medical accommodation**. These policies are outlined, with links to the full policies, at: [http://anthropology.uwo.ca/undergraduate/course\\_information/academic\\_policies.html](http://anthropology.uwo.ca/undergraduate/course_information/academic_policies.html)

**Course Syllabus** - The Course syllabus is, in effect, a contract between instructor and student over mutual expectations for the course, course content, and grading. Any changes to the course after a syllabus has been finalized needs to be mutually agreed to by the instructor and a consensus of students in the class. However, NOT reading the syllabus is NOT acceptable as an excuse for not getting something done or claiming you were not informed of course expectations/assignments. At this point I would add that failure to read this syllabus, as evidenced by asking a question that is clearly answered in the syllabus, may invoke the wrath of Kahn, Voldemort, Thanos, Mugatu, Donald Trump or whatever evil being or supervillain you imagine here. If you have any questions about anything in the course syllabus or wish to raise a concern, please meet with me during office hours to discuss further.