

**Arch 5110 2024 FA Archaeological Science Seminar  
Fall 2024**

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classroom BB2002  
Mon and Wed, 2:30 to 4:00 pm  
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This course addresses communication and critical appraisal in archaeological science. It explores methods and their theoretical underpinnings. It contributes to skills development in information synthesis and presentation, and critical evaluation of research proposals, briefing documents, oral presentations and formal seminars.

Both faculty members and students will lead seminars that address various research topics in the archaeological and bio-anthropological sciences. You are expected to read assigned background materials, listen to the presentations and participate in the discussion. You will submit short written 'reflections' or critiques about these issues, and contribute a seminar presentation on a topic of your choice.

Review the supporting readings before the presentation to be better prepared to meaningfully participate. The assigned/suggested readings will be available on MyCourseLink (folders with presenter's name on them). PDF versions of Hamilton's class presentations will also be made available. Some of the other presenters might also make their materials available.

The primary 'learner outcome' is to refine students' critical thinking, plus written and oral communication skills. Grading emphasis is on demonstrated comprehension of the topics at hand, and the quality of communication.

Writing must be focused and well-crafted. Academic prose may be disjointed, convoluted, incompletely argued and jargon laden. Work to do better. The small writing assignments will help you develop better writing skills. Think carefully about your objectives and write deliberately and sparingly. Readers' and listeners' attention span is generally short. You must capture interest and provide information that builds to a defensible conclusion. Also important is recognition of uncertainty and potential bias. When writing about a controversy or difference of interpretation, offer a critically balanced summary of positions, the basis for interpretation, and how well the data supports the divergent conclusions.

**Lakehead's Accommodation & Confidentiality Statements:**

Lakehead University is committed to achieving full accessibility for persons with disabilities/medical conditions. Part of this commitment includes arranging academic accommodations for students with disabilities/medical conditions to ensure they have an equitable opportunity to participate in all of their academic activities. If you are a student with a disability/medical condition and think you may need accommodations, you are strongly encouraged to contact Student Accessibility Services (SAS) and register as early as possible. For more information, please email [sas@lakeheadu.ca](mailto:sas@lakeheadu.ca) or visit <https://www.lakeheadu.ca/faculty-and-staff/departments/services/sas>

**Grading**

- 3 critical reviews of papers/presentations (800 words submitted as text documents to [shamilto@lakeheadu.ca](mailto:shamilto@lakeheadu.ca)) (3 x 10%)
- research 'speed dating' oral presentation (10%)
- 30 minute seminar presentation (20%)
- 10-15 page paper discussing an instructor-approved topic (25%)
- class participation (15%)

### Week 1 (Sept 4)

- Wk1a: Course Introduction  
What is academic criticism?  
Wk1b: Role of Theory in Research  
**Readings:** Selected articles re Indian Residential School mortality and unmarked graves

### Week 2 (Sept 9, 11) Scott Hamilton

- Wk 2: **Class discussion** (20-30 minutes) of newspaper editorial content re Indian Residential School mortality. Make sure to address the readings, you are expected offer perspective in the class about the public debate reflected in the newspaper articles.
- Wk 2b: Role of Theory in Research, cont'd

### Week 3 (Sept 16, 18) Matt Tocheri:

- Topics in PaleoAnthropology. Discoveries, Debates, and the Details: Deciphering the Complexities and Incompleteness of the Hobbit Fossil Record.

Readings <https://drive.google.com/drive/folders/1iihYJO8OtTNmXiE5i5MdSI-aaCI7VpQm?usp=sharing>

Podcast H. floresiensis <https://pod.link/originstories/episode/08f6e67c681ab2579279e6ca4e31dc67>

### Week 4 (Sept 23, 25) Scott Hamilton, Students

- **Developing a research proposal**
- **Research 'Speed Dating'.** Students have 10-15 minutes to informally talk about their proposed thesis research. Introduce your thesis idea, how you became interested in the topic, why you think it is interesting and intellectually important, and how you might go about addressing it.

### Week 5 (Oct 2) Sept 30 no class: National Day for Truth and Reconciliation

- (Oct 2) Hamilton: Introduction to cartography in archaeology
- Hamilton: Remote Sensing and its application to archaeology

### Week 6 (Oct 7, 9) Hamilton

- **Oct 7** Hamilton: UAVs and LiDAR applications to archaeology Readings: read one or two.  
**Hamilton, S.** 2018 'More than pretty pictures: Drones, bison kills, and considerations of cultural landscapes' Archaeological Survey of Alberta, Occasional Paper No. 28, pp.53-91.  
**Hamilton, S.** 2017 'Drone mapping and photogrammetry at Brandon House 4'. *Society for Historical Archaeology*. 51(4), 563-575. DOI 10.1007/s41636-017-0069-4.  
**Hamilton, S. and J. Stephenson** 2017 'UAV (drone) aerial photography and photogrammetry and its utility for archaeological site documentation'. Occasional Paper #2, Ontario Association of Professional Archaeologists.  
[http://www.apaontario.ca/resources/Documents/APA\\_OccasionalPaper2\\_DroneTesting\\_2017.pdf](http://www.apaontario.ca/resources/Documents/APA_OccasionalPaper2_DroneTesting_2017.pdf)  
**Hamilton 2019.** Remote sensing at the Sourismouth Forts Archaeological Survey of Alberta, Occasional paper No. 39.  
**Hamilton 2018** <https://open.alberta.ca/publications/occasional-paper-38-more-than-pretty-pictures>
  - **Oct 9** Hamilton Practical considerations of archaeological consulting.
- Assignment due.** Critical Review #1

### Study Week (Oct 14 to 18)

### Week 7 (Oct 21, 23) Scott Hamilton

- Wk7a Why is 'Near surface Geophysics' less widely used in N America compared to Europe?

- Wk 7b Case studies in the application of near-surface geophysics to Canadian Archaeology
  - Proton Magnetometry and fur trade posts
  - Gradiometer and GPR survey at Whitefish Lake precontact site

**Week 8 (Oct 28, 30) Tim Kaiser, Scott Hamilton:**

- **Oct 28 Hamilton** Indian Residential Schools: Historical and socio-political context, operations, 'death/burial' investigations, application of non-invasive methods.
- **Oct 30 Kaiser** "Pottery as culture, style or 'phenomenon'?" Early Bronze Age Europe (zoom presentation)

**Assignment due.** Critical Review #2

**Week 9 (Nov 4, 6) Jessica Metcalfe**

- **Nov 4** 'Beaver, but not Dane-zaa: Supporting cultural resurgence of the Tsattine (Tsa-Dene) River People
- **Nov 6** 'Following the bison: Western science and Indigenous insights into migration, hunting and human-animal relations'

**Week 10 (Nov 11, 13) Tamara Varney, Scott Hamilton**

- **(Nov 11) Varney** '30 years of bioarchaeological investigation in Antiqua, West Indies'
- **(Nov 13) Students...** Informal oral discussion re role of archaeology in IRS investigations. What is our social responsibility? (30-45 minutes collectively)
- **Hamilton** The Archaeology of 'Contested Ground'.
- Case Study of the Battle of 'Little Big Horn' or 'Greasy Grass'

**Week 11 (Nov 18, 20)**

- **Contingency** Case Study of High Falls Burial Project (Is this research 'advocacy' or not?)
- Readings: Hamilton, Morrisseau and McCrady 'New Solitudes: Conflicting World Views in the Context of Contemporary Northern Resource Development' Canadian Journal of Archaeology 1995 Vol 19, pp. 3-18. 'This Powerful Place' CBC IDEAS radio documentary by Jody Porter.

**Assignment due.** Critical Review #3

**Week 12 (Nov 25, 27)**

Student Seminars