ARCTIC VIKINGS FIELD SCHOOL: IGALIKU (GARÐAR), SOUTH GREENLAND

Course ID: ARCH 365Y

June 22– July 23, 2019

FIELD SCHOOL DIRECTORS:

Dr. Christian Koch Madsen, *Director and PI*; Deputy Director of the Greenland National Museum & Archives, Post Doc, National Museum of Denmark (christian@natmus.gl)

Dr. Hans Harmsen, *Administrative Director*; Curator, Archaeologist, Greenland National Museum & Archives (harmsen@natmus.gl)

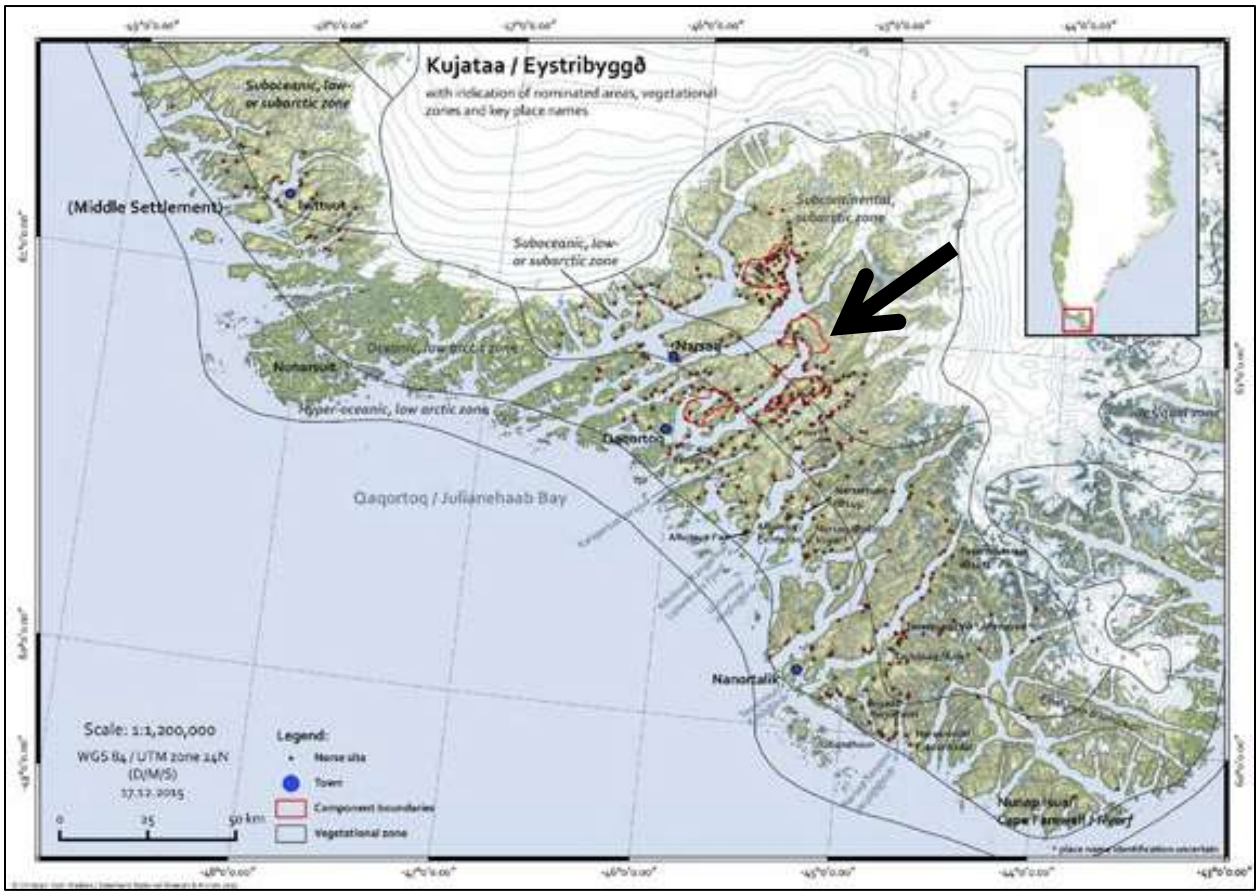
Ruins at the episcopal farm of Garðar at Igaliku.

INTRODUCTION

Greenland is undergoing an rapid environmental change as global warming continues to disproportionately impact in the circumpolar North. For archaeologists, this means the rapid and complete loss of organic artifacts and ecofacts. This phenomenon is caused by rising soil temperatures and poses an immediate threat to many archaeological sites and features in Greenland. The Norse Eastern Settlement (>500 sites) in South Greenland possesses a substantial number of prehistoric and colonial era archaeological sites and is now over the critical threshold—hundreds of these sites are now rapidly degrading. We face an urgent threat because these unique scientific and cultural resources may soon be gone forever.

The 2019 field team will perform investigations at the small farming hamlet of Igaliku in South Greenland. Igaliku has 17 registered Norse Greenlandic sites, ranging from single structures to the enormous episcopal manor (Garðar) with 50+ features. At least four other Norse farm sites are found nearby and are classified as small or medium in size, with 11 structures or fewer. The most substantial of these is Ø48 with remains of a small church ruin. There are also three or four potential shieling sites and seven out stations.

Rivalled in size and complexity only by Qassiarsuk (Ø29a – Brattahlíð), Garðar is distinctive due to its unique monumental architecture. It was the largest church in Norse Greenland and its enormous byres and storage buildings reflect the manor's great economic importance. Not only do the ruins of Igaliku represent the apogee of Norse Greenlandic society—they are the only medieval episcopal manor in the North Atlantic to be comprehensively preserved.



The dest size of the adjacent farms is no doubt an effect of the economic centrality of the manor, which most likely controlled the whole isthmus and organized the exploitation of local resources directly for its own benefit. It is possible that most or all of the small farms were abandoned or brought under the direct control of Garðar in the 13th and 14th centuries.

FIELD PLAN

This field school is a four-week experiential learning program for students to gain a fundamental understanding of basic methods of archaeological field research in the Arctic. This includes standardized techniques of site identification, landscape survey, documentation, testing, and excavation. Students will also learn to identify common artifact types and gain experience in zooarchaeology and the exhumation of human remains. Supplementary evening lectures and daily discussions will expand these topics and introduce additional themes that include archaeological research design, community archaeology, global change effects on cultural heritage, and the legal and ethical aspects of archaeological work. Due to the rapid loss of archaeological materials, emphasis will be placed on rapid and efficient recovery techniques to benefit students who may plan to pursue cultural resource management (CRM) work in the future. Students will spend the majority of the field school at Igaliku, but also have the opportunity to participate in archaeological surveys of the surrounding fjord and

UNESCO World Heritage key component sites. Participation in field transport and logistics, as well as general camp tasks during the field season, will provide students a basic grounding in the fundamentals needed for conducting successful scientific field research.

ACADEMIC CREDIT UNITS & TRANSCRIPTS

Credit Units: Attending students will be awarded 8 semester credit units (equivalent to 12 quarter credit units) through our academic partner, Connecticut College. Connecticut College is a private, highly ranked liberal arts institution with a deep commitment to undergraduate education. Students will receive a letter grade for attending this field school (see grading assessment and matrix). This field school provides a minimum of 160 direct instructional hours. Students are encouraged to discuss the transferability of credit units with faculty and registrars at their home institution prior to attending this field school.

Transcripts: An official copy of transcripts will be mailed to the permanent address listed by students on their online application. One more transcript may be sent to the student home institution at no cost. Additional transcripts may be ordered at any time through the National Student Clearinghouse: http://bit.ly/2hvurkl.

COURSE OBJECTIVES

After completing this course, students will be able to:

- Identify and record an archaeological site.
- Demonstrate competence in basic procedures of excavation and documentation including:
  - Lay out an excavation unit
  - Use standard tools and techniques to excavate the unit to professional standards.
  - Fill out paper documentation
  - Complete plan maps and profiles (using both traditional and electronic methods of provenience control)
  - Photograph the excavation unit
- Indicate a basic understanding of archaeological method and theory
- Demonstrate competence in basic field laboratory processing techniques
- Demonstrate an understanding of basic problems in Arctic archaeology, including chronology, stratigraphy, taphonomy, site formation processes, and factors that affect sites, including the effects of modern human impacts and climate change
- Understand archaeological research designs and how they impact field investigations
- Demonstrate an understanding of how to evaluate archaeological finds
- Demonstrate an understanding of archaeological ethics
- Demonstrate an understanding of community engagement and meaningful collaboration as it relates to archaeological practice

PREREQUISITES

This is hands-on, experiential learning and students will study how to conduct archaeological research on-site, living and working in close quarters with fellow students and staff. Archaeology involves physical work and exposure to the elements and thus, requires a measure of acceptance that this will not be the typical university learning environment. You will get dirty, sweaty, wet, cold, tired and have to work and live outdoors. Meals are a communal and sometimes food options are very limited. Students are

required to come equipped with an understanding that archaeological fieldwork requires very hard work.

DISCLAIMER – PLEASE READ CAREFULLY

Our primary concern is with education. Traveling and conducting field research involve risk. Students interested in participating in IFR programs must weigh whether the potential risk is worth the value of education provided. While risk is inherent in everything we do, we do not take risk lightly. The IFR engages in intensive review of each field school location prior to approval. Once a program is accepted, the IFR reviews each program annually to make sure it complies with all our standards and policies, including student safety.

We do our best to follow schedule and activities as outlined in this syllabus. Yet local permitting agencies, political, environmental, personal, or weather conditions may force changes. This syllabus, therefore, is only a general commitment. Students should allow flexibility and adaptability as research work is frequently subject to change.

Archaeological field work involves physical work in the outdoors. You should be aware that conditions in the field are different than those you experience in your home, dorms, or college town. This program operates at a typical inland fjord valley in Southern Greenland. During the day, temperatures fluctuate between 30°-70°F (-1°-20° C) depending on the weather. Heavy rains, winds and sometimes even snow can occur during the summer months in South Greenland. Because of its northern latitude you will also be exposed to high UV index so appropriate measures should be taken for those with fair skin or sun sensitivities. Mosquitoes and black flies can also be problematic depending on the temperature.

If you have any medical concerns, please consult with your doctor. For all other concerns, please consult with the project directors.

TEAMS AND COURSE MODULES

Students participating in the Arctic Viking Field School will be engaged in a variety of different learning experiences that range from direct hands-on training in the field and laboratory to specially themed lectures. The general curriculum is divided between landscape survey, keyhole investigations (small test excavations) and laboratory/post-excavation artifact processing. These general activities are supplemented by lectures, special workshops, community days and excursions interspersed throughout the course of the field school. Since archaeological fieldwork often requires an effective distribution of labor, students will be asked to participate in different activities at different times. At the end of the field school students will be competent in the fundamental principles of archaeological survey, test excavation, and post-fieldwork artifact processing.

GRADING MATRIX

This course uses a letter grading system (A, B, C, D, and F). A=90-100%, B=80-90%, C=70-80%, D=60-70%, F=0-60%. Your understanding of archaeological field methods and your ability to transform this to practice will be evaluated using this combination of these factors:

15% of grade	Required documentation and journal log. Your grade for documentation assignments will be determined based on the completeness, accuracy, and legibility of the submitted forms and field books, as well as the proper execution of documentation photographs (use of scales, properly logged, cleaned for photography). Maintaining proper documentation is extremely important! This is because archeological excavation is destructive and anything not properly and accurately documented is lost forever. In addition, all students will be required to keep a daily journal on loose leaf paper or notebook that will record details about the day's events, what was completed, concepts learned, new definitions and

	terms, information about the deposits or features that they are excavating, on-going thoughts about interpretations, etc. Students are encouraged to include drawings, sketches or site maps as part of their journal. Progress will be checked periodically during the course and a copy of the journal must be provided to the director of the field school before you leave to satisfy the written requirement of the course.
50% of grade	Discussion & camp participation/attitude. It is important for students to take part in all aspects of this excavation to achieve the desired learning outcomes. This includes not only the work performed while in the field but helping to make sure the operations of the camp are orderly. Assigned readings should be finished before planned discussions and lectures. Completing reading early will be beneficial, since there will be professional archaeologists and advanced students participating in the excavations and topics may well come up before the assigned date. Crew members with positive attitudes are very important for a productive excavation in the challenging field conditions of the Arctic! We all share the responsibility to keep the experience positive for other students, instructors, local community members and visiting scholars.
25% of grade	Performance in field and laboratory activities. Your grade for field and laboratory performance is based on the ability to demonstrate applied knowledge of the basics of various field techniques. In some cases, individuals may have particular aptitude for a particular task and may spend extra time on that task, learning to perform it particularly well. However, since this is a field school, and many smaller projects will need crewmembers to be able to perform all tasks, you will be expected to demonstrate a basic competence in all areas that are covered in this course.
10% of grade	Final oral exam. Each student will be expected to perform in a 15-20 minute oral examination prior to leaving Greenland. The exam will draw on the readings, lectures and personal experiences while in the field in addition to how this knowledge might be applied to your future career path and interests.

TRAVEL AND MEETING POINT

Hold purchasing your airline ticket until six (6) weeks prior to departure date. Natural disasters, political changes, weather conditions and a range of other factors may require the cancelation of a field school. The IFR typically takes a close look at local conditions 6-7 weeks prior to program beginning and make Go/No Go decisions by then. This time frame still allows the purchase of discounted airline tickets while protecting students from potential loss of airline ticket costs if we decide to cancel a program.

All students are responsible for arranging their own transportation to Narsarsuaq, Greenland and arrive on Saturday, June 22. **Students travelling from North America will most likely travel through Reykjavik, Iceland (KEF) and have to transfer to the local airport for a connecting flight (AirIceland) to Greenland. Students travelling from the EU and other countries will most likely connect through Copenhagen Airport (CPH) and will layover in Kangerlussauaq International Airport (SFJ).** Upon arrival in Narsarsuaq, students will be met by members of the project team outside the baggage terminal. Students should ensure that they have sent their time of arrival to Drs. Harmsen and Madsen in advance. This program concludes on Monday, July 22 when we arrive back at Narsarsuaq. Students may depart for their return home, or onward travel, anytime on Tuesday, 23 July.

North America (USA & Canada)	Connecting flight and pass through passport control in Keflavik International Airport (KEF)	Bus/taxi from KEF to Reykjavík Airport (RKV) near city center. Take Air Iceland flight to Narsarsuaq (UAK)
EU and all other countries	Connecting flight through Copenhagen Airport (CPH)	Travel to Kangerlussuaq (SFJ) and take connecting flight to Narsarsuaq (UAK)

If you miss your connection or your flight is delayed, please call, text, or e-mail the project directors immediately. A local emergency cell phone number will be provided to all enrolled students.

VISA REQUIREMENTS

A valid passport and evidence of return or onward travel are required to enter and depart Greenland. All travelers entering Greenland should have a passport that is valid for at least 90 days after they depart their country of residence. The ideal amount of validity time that should be left on your passport when you depart a country should be roughly 6 months. Students travelling through Iceland will pass through Icelandic immigration prior to arrival in Greenland and may be asked to provide proof of their participation in the field school. We will provide this letter of participation to all students prior to departure.

ACCOMMODATIONS

On site—where the majority of the field school will take place—we will be camping. A tent and air mattress will be provided. You should bring a sleeping bag of good quality designed for freezing temperatures of at least +10° F (-12° C or lower). You will receive more information before you arrive in Greenland detailing other equipment you should bring. Water will be collected from local wells for cooking and drinking. Toilet facilities are basic but functional. Arrangements will be made to access shower facilities and washing machines—but it should be noted that these facilities will not be available every day.

MEALS

All food during the course of the field school is inclusive. All meals will be communal events and provide nutritious but basic food with what can be obtained in the local shop. We take turns cooking and doing the washing up, allowing budding chefs an opportunity to wow us all. **It is not possible to accommodate special dietary needs in this remote location.** This is due to the lack of ingredients that can be purchased in the immediate area.

STUDENTS WITH DISABILITIES AND SPECIAL NEEDS

The Greenland National Museum and Archives and IFR is committed to equal opportunity for students experiencing disabilities. However, due to the physical nature of archaeological fieldwork and the remote location of the field camp, students with disabilities and special needs are encouraged to contact the instructor prior to enrollment in the course to determine whether safe and suitable arrangements may be made to ensure a positive educational experience.

COURSE SCHEDULE

All IFR field schools begin with safety orientation. This orientation includes proper behavior at the field area, proper clothing, local cultural sensitivities and sensibilities, potential fauna and flora hazards, review of IFR harassment and discrimination policies, and review of the student Code of Conduct.

Dates	Activity
Jun 22	**FIELD SCHOOL BEGINS** *Students arrive Narsarssuaq airport* Welcome orientation & dinner Overnight Narsarssuaq hostel
Jun 23	Morning: Transport - Site tour Qassiarsuk (Brattahlíð) Afternoon: Transport to Igaliku and begin camp set-up Evening: SAFETY & HEALTH ORIENTATION (HH)
Jun 24-28	Teams 1 & 2: Camp set-up, site survey and monitoring, setting up excavation units Lecture #1 (CKM) – The Norse World (1000-1450 AD) Lecture #2 (HH) Climate change and loss of arch heritage Lecture #3 (HH & CKM) UNESCO World Heritage & Greenland

Jun 29	**FREE DAY: (**shower, laundry, relax, catch up on readings, go hiking in pairs or groups)
Jun 30-Jul 5	Team 1: Survey Team 2: Excavation Lecture #4 (CKM) – Cultural History timeline of Greenland Lecture #5 (RH) TBA – environmental arch Lecture #6 (RH) TBA – zooarch
Jul 6	RH departs Group Excursion: transport (12x people) to Tasilikulooq, visit one of the sheep farmers and see the site of the Ø171 excavation. We then head on to Qanisartuut, where we spend a night in the hostel.
Jul 7	Return to camp - **FREE DAY** (shower, laundry, relax, catch up on readings, go hiking in pairs or groups)
Jul 8-12	Team 1: Excavation Team 2: Survey Lecture #7 (JA) – bioarch Lecture #8 (KS) – zooarch Lecture # 9 (KS) – zooarch
Jul 13	**FREE DAY** (shower, laundry, relax, catch up on readings, go hiking in pairs or groups)
Jul 14-19	Teams 1 & 2: Winding down & post-excavation lab work Lecture # 10 (MN) TBA Lecture #11 (JA) TBA Lecture #12 (CKM) TBA
Jul 20-21	Close down camp, clean-up, packing
Jul 22	Morning: Transport to Narsarsuaq Afternoon: individual oral exams **EVENING: FAREWELL PARTY & DINNER** *Overnight Narsarsuaq hostel*
Jul 23	Students depart home or onward travel

REQUIRED READINGS

Arneborg, J., N. Lynnerup, J. Heinemeier, J. Møhl, N. Rud, and Árný E. Sveinbjörnsdóttir (2012)
Norse Greenland dietary economy ca. AD 980-ca. AD 1450: Introduction. Journal of the North Atlantic 3:1-39.

Arneborg, Jette, Niels Lynnerup, and Jan Heinemeier (2012)
Human diet and subsistence patterns in Norse Greenland AD C. 980—AD c. 1450: archaeological interpretations. Journal of the North Atlantic, 3:119-133.

Berglund, Joel (2010)
Did the Medieval Norse Society in Greenland really fail? In *Questioning Collapse: Human Resilience, Ecological Vulnerability, and the Aftermath of Empire*, Patricia McAnany and Norman Yoffee (eds.). Cambridge: Cambridge University Press.

Bishop, R., M. Church, A. Dugmore, C. K. Madsen, and N. A. Møller (2013)
A charcoal-rich horizon at Ø69, Greenland: evidence for vegetation burning during the Norse landnám? Journal of Archaeological Science 40(11):3890-3902.

Diamond, Jared (2005)
Chps. 6,7 & 8, pp 178-276. *Collapse: How societies choose to fail or succeed*: Penguin.

Dugmore, A.J., et al. (2012)
Cultural adaptation, compounding vulnerabilities and conjunctures in Norse Greenland. PNAS 109(10):3658-3663.

Dugmore, Andrew J., Christian Keller, and Thomas H. McGovern (2007)
Norse Greenland settlement: reflections on climate change, trade, and the contrasting fates of human settlements in the North Atlantic islands. Arctic anthropology 44(1):12-36.

Frei, K.M., A.N. Coutu, K. Smiarowski, R. Harrison, C. K. Madsen, J. Arneborg, R. Frei, G. Guðmundsson, S. M. Sindbæk, J. Woollett, S. Hartman, M. Hicks & T. H. McGovern (2015)
Was it for walrus? Viking Age settlement and medieval walrus ivory trade in Iceland and Greenland, World Archaeology, 47(3):439-466.

Grant, Jim, Sam Gorin, and Neil Fleming (2008)
Chp. 10, Managing the past. *The Archaeology Coursebook: An introduction to themes, sites, methods & skills.* Routledge, pp. 341-376.

Lucas, Gavin & Thomas McGovern. 2007. Bloody Slaughter: Ritual decapitation and display at the Viking settlement of Hofstadir, Iceland. European Journal of Archaeology,10(1):7-30.

Maher, R. A. and R. Harrison (2014)
Humans - a Force of Nature in Human Ecodynamics in *The North Atlantic: A Collaborative Model of Humans and Nature through Space and Time*, pp. 1-19, edited by R. Harrison, R. & R. Maher. Lexington Publishers, Lanham, Maryland.

McGovern, T.H., R. Harrison, K. Smiarowski (2014)
Sorting Sheep & Goats in Medieval Iceland and Greenland: Local Subsistence or World System? in *The North Atlantic: A Collaborative Model of Humans and Nature through Space and Time*, pp. 153-176, edited by R. Harrison, R. & R. Maher. Lexington Publishers, Lanham, Maryland.

Nuttall, Mark (2010)
Anticipation, climate change, and movement in Greenland. Études/Inuit/Studies 34(1):21-37.

O'Conner. Terry. (2008)
The Archeology of Animal Bones. 2nd ed. Texas A&M University Press.

Smiarowski, Konrad, Ramona Harrison, Seth Brewington, Megan Hicks, Francis Feeley, Celine Dupont-Herbert, George Hambrecht, Jim Woollett, and Thomas H. McGovern (2017)
Zooarchaeology of the Scandinavian settlements in Iceland and Greenland: diverging pathways. In *The Oxford Handbook of Zooarchaeology.* U. Albarella, H. Russ, K. Vickers, and S. Viner-Daniels, eds. Pp. 147-163. Oxford: Oxford University Press.

Stendel, Martin, Jens Hesselbjerg Christensen, and Dorthe Petersen (2008)
Arctic climate and climate change with a focus on Greenland. Advances in Ecological Research 40:13-43.

Reitz, Elizabeth, & Elizabeth Wing. (2008)
Chapter 2. Zooarchaeological history and theory, in *Zooarchaeology. 2nd ed.*, Pp. 12-31 Cambridge University Press.

Russell, N. (2012)
Social Zooarchaeology. Cambridge University Press. Pp. 11-51.

Zorich, Zach (2017)
Greenland's Vanished Vikings. *Scientific American*, 66: 66-73.

RECOMMENDED READINGS

Cross, Susan, Charles Hett, and Margaret Bertulli (1991)
Conservation manual for northern archaeologists= Manuel de conservation destiné aux archéologues du Nord: Prince of Wales Northern Heritage Centre.

Vésteinsson, Orri (2016)
Kujataa – a subarctic farming landscape in Greenland. Nomination to UNESCO's World Heritage List. 264 pp.