





THE SHIRE ARCHAEOLOGICAL PROJECT, ETHIOPIA

Course ID: ARCH 345H

January 3-January 30, 2021

Academic Credits: 8 Semester Credit Units (Equivalent to 12 Quarter Units)

School of Record: Connecticut College

DIRECTOR:

Prof. Willeke Wendrich, Department of NELC/Cotsen Institute of Archaeology at UCLA (wendrich@humnet.ucla.edu)



INTRODUCTION

Since 2016 the Shire Archaeological Project (UCLA) is excavating in the Western Tigray region of Ethiopia, with a focus on Mai Adrasha, a large settlement located 50 km west of Aksum (ancient Axum), which was the capital of the Aksumite Kingdom (ca. first to sixth century CE). The site, the region and its complex cultural heritage provides important information on the sub-Saharan counterpart of the Greco-Roman world. This society with an economic base of agriculture and trade, was in contact with the North and embraced early Christianity. The research area consists of almost 100 km² and is located east of the modern city of Inda Selassie. The Shire Archaeological Project research area comprises extensive ancient remains dating from the prehistoric to the medieval period including three large domestic sites, Mai Adrasha, Adi Jamera and Mezaber Adi Menaber.

During the 2021 season, field school participants will work in Mai Adrasha, a site under threat of destruction due to continuing panning of natural gold by the local population. In addition to survey and intensive excavations, students will participate in ongoing work, which includes community archaeology, ethnoarchaeology, experimental archaeology and site management as these are all-important and integrated parts of our work.

Mai Adrasha

The site of Mai Adrasha is located in the province of Tigray in the vicinity of the modern town of Inda Selassie just off the paved road to Axum. It is only about 50km west of the ancient capital of Aksum, a major destination for both Ethiopian pilgrims and foreign tourists. The site itself is an extensive tell,

approximately 1 x 1 km. Niall Finneran and Jacke Phillips identified Mai Adrasha in a survey conducted in 2002 and 2003, and data from their work was published only partially (Finneran 2005). From the ceramic assemblages recovered from the surface, Finneran and Phillips dated the majority of the tell to the Proto-Aksumite and Aksumite (120/40 BCE - 800/850 CE) periods. They also identified in limited areas pre-Aksumite and Post-Aksumite (800/850 CE - 1500 CE) remains. The site has not been formally excavated, though it has been extensively looted by the local population, which pans the soil for natural gold (Phillips 2005).

UCLA conducted four excavation seasons at Mai Adrasha in 2016-2019. The 2021 field school will build upon this work. There is good preservation of the ancient remains and a wide range of archaeological materials, including botanical macro-remains, animal bones, ceramics, wood and metal. This project includes archaeological specialists and students will be exposed to a range of archaeological methods and practices. This project focuses on two main research questions.

- 1. How was agriculture initiated, developed and employed in ancient Ethiopia?
- 2. How did craft specialization, trade, and agriculture-based economic circumstances influence the formation and expansion of the pre-Aksumite state in the western Ethiopian highlands?

In relation to these questions, other work will be taking place that students will have a chance to participate in. These might include community archaeology, ethnoarchaeology, experimental archaeology, site management and preservation. Engaging in such activities mainly entails working with the local community to find alternatives for the panning of gold on the site. The Shire Field School combines teaching American students with training Ethiopian MA students from Axum University – this should make cultural exchange an integral part of the program. During the five weeks of the field school students get an intensive on-the-job training in archaeological research questions, excavation techniques, survey and finds processing. Students will have the opportunity to work closely with archaeological specialists and are encouraged to take on finds-recording tasks.

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.

PREREQUISITES

None. This is hands-on, experiential learning and students will learn on-site how to conduct archaeological research. 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 sweaty, tired and have to work in the outdoors. Students are required to come equipped with sufficient excitement and adequate understanding that the archaeological endeavor requires real, hard

work – in the sun, on your feet, and with your trowel. The work requires patience, discipline and attention to detail.

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.

The IFR does not provide trip or travel cancellation insurance. We encourage students to explore such insurance on their own as it may be purchased at affordable prices. Insuremytrip.com or Travelgurad.com are possible sites where field school participants may explore travel cancellation insurance quotes and policies. If you do purchase such insurance, make sure the policy covers the cost of both airfare and tuition. See this Wall Street Journal article about travel insurance that may help you with to help to decide whether to purchase such insurance.

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 in a dry highland climate with direct sun exposure. For reasons of modesty and protection against sun and insects you should wear full length pants and preferably long sleeved shirts.

If you have any medical concerns, please consult with your doctor. For all other concerns, please consult with the project director – as appropriate.

COURSE OBJECTIVES

The objective of the course is to enable students to better understand how archaeology is practiced in the field. To achieve this objective, this course has two primary goals: (1) to provide students a practical working knowledge of **archaeological field methods**, including survey, excavation, laboratory analysis, artifact cataloging, and conservation; and (2) to introduce students to the **intellectual challenges presented by archaeological research**, including research design, the interpretation of data, and the continual readjustment of hypotheses and field strategies with regard to information recovered in the field.

Students will participate in the following research activities:

Excavations: Students will participate in guided excavations at Mai Adrasha.

Survey: Students will conduct survey and learn how to create plans and maps.

Recording: Students will participate in recording stratigraphy, filling out excavation forms, making top plans and elevations, mapping finds, maintaining an excavation notebook, writing a report, and recording finds.

Cataloging: Students will participate in field sorting and cataloging of finds.

Laboratory: Scheduled lab tasks may include washing, sorting, drawing, and cataloging of finds. If students show interest, they may assist in specialist analysis potentially leading to participating in the publication of the results.

The Shire Field School is a project that provides training for Master's students from Axum University and undergraduate students in the latest archaeological techniques. All Ethiopian student participants have university training and most have experience in the field. The field school is an opportunity to work together with an international team of archaeologists in order to increase your knowledge and gain practical experience. It is a wonderful way to experience archaeology first hand, and decide whether it is something you want to spend your life doing. Field school experience is very important on your CV if you decide to apply for graduate school in archaeology whether through Anthropology, NELC, Classics, or another department.

This field school forms part of a larger research project directed by Prof. Willeke Wendrich (University of California, Los Angeles) and Dr. Rachel Moy (University of California, Los Angeles). Your work within the field school will be part of publication effort by the team and the two directors.

TRAVEL & 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.

Students should arrive to the Shire Airport on Sunday January 3, and will be met by project staff members. Multiple shuttles will be available based on students' arrival times. Please make sure to arrive in Addis Ababa early in the morning of the 2nd or the day before to catch a connecting flight to Shire. The domestic airport in Addis Ababa is adjacent to the international airport.

If you missed your connection or your flight is delayed, please call, text or email to the project director. Local cell phone numbers and other emergency contact information will be provided to all enrolled students.

VISA REQUIREMENTS

U.S. citizens who travel to Ethiopia are required to obtain an Ethiopian visa. To apply for a visa, your passport must be valid for at least 6 months after the date of entry. It is recommended that you obtain a 3-month tourist visa before arrival, which is an easy online procedure through the government website https://www.evisa.gov.et/ (in 2019 the cost was \$72). Beware, because there are "service" websites that ask for a lot of money to do the request for you, while it is a very easy procedure which only asks you to upload jpegs of a passport size photo and your passport. You can also obtain a visa at the airport upon arrival in Addis Ababa, or from the Ethiopian embassy or consulate in your country.

Citizens of other countries are asked to check the Ethiopian Embassy website page at their home country for specific visa requirement.

ACCOMMODATIONS AND DAILY SCHEDULE

Students and most staff members will be staying in a dedicated excavation house in a quiet neighborhood in Shire/Indaselassie. The accommodations are shared bedrooms, with two to four persons per room and a basic shower and squat toilet in each room. Sheets and pillows will be provided, but participants should bring towels and mosquito nets.

Once we start fieldwork, the day is fairly full. We will have breakfast in the dig house at 6:30 am and we leave for the field at 7:15am – arriving there by 7:30 am. A light lunch will be served at 12:00 am. Work in the field concludes each day at 3:30 pm. The late afternoons are reserved for lab work and daily lectures. At 6:00 pm we get together in the dig house to discuss the day's work. Every work group gives a brief report on the results, problems and successes. During these meetings we will discuss results and interpretations. You are urged to contribute information and suggestions. At 7:00 pm we will eat dinner as a group at a local restaurant.

COMPUTERS, MAIL AND CELL PHONES

You are encouraged to bring a laptop, tablet, or phone to keep in contact with loved ones at home. The dig house does not have internet, but if you have an unlocked telephone then you can purchase a local telephone/data SIM card. Unlocked US quad band and smart phones should work in Ethiopia. Basic cell phones can also be purchased in Shire. To be contacted in Ethiopia, your family must dial **011 251** before the number. A week before the start of the field school we will forward an emergency number in Ethiopia in case someone from home needs to contact you.

Another option to get online is to buy a USB modem for 3G internet connection at the local telecommunications office. Regulations change, for instance in 2018 it was not possible to purchase two SIM cards (telephone/data and USB modem) per person, but in 2019 this did not seem to be a problem. None of the options are 100% reliable and be prepared for both power and internet outages. There are several internet cafes in Shire that provide affordable internet access that is faster than the internet through the USB modem. You may want to advise friends and family not to send emails with large attachments or photos while you are in Ethiopia. Bringing your computer will facilitate work on assignments and reports, but make sure you protect your equipment such as computers, tablets and cameras against dust. We have had no problems with theft from the dig house.

Ethiopia has different plugs from the US. They use a European plug with two circular metal pins and operate on **220V 50Hz**. The plug looks like this:



You should check all of your electronics before you come to make sure that they will work. Some people bring surge protectors as well. In Shire there are several shops that sell flashlights that can be recharged.

HEALTH SAFETY

Two vaccinations are legally required to enter Ethiopia: yellow fever and polio. Proof of vaccination consists of the International Certificate of Vaccination (also known as a yellow card.) You should get the vaccination and the yellow card, which specifies the vaccination type and date, at the medical office which gives you the travel vaccinations. The CDC recommends that all travelers to Ethiopia be fully vaccinated against polio. Adults who have been fully vaccinated should receive a single booster dose of polio vaccine. Students with prescriptions should make sure they have all required documents and medication with them as it may be difficult to receive equivocal prescription medication in Ethiopian pharmacies. While in Ethiopia, foreign students are covered through the IFR Health Insurance for the 4-week Field School period. Insurance information will be sent separately.

The malaria zone in Ethiopia begins below 2,000m altitude. Inda Selassie sits at 1,953m and we will be in the field in the dry season, thus the mosquito population will be low and risk will be minimized. Please discuss with your health-care professional whether you wish to take anti malaria drugs, such as Malerone.

We will be at high elevation and outside in the heat most days. The highland sun is intense and a highly protective sun-blocking cream is indispensable to prevent acute as well as long-term skin problems. Due to the "crowding effect," caused by the gathering in one location of a lot of people from different countries, it is almost inevitable that some minor communicable diseases, such as influenza or diarrhea, will do the rounds. Your personal hygiene may help to prevent this. Food sanitation in Ethiopia is not always at the same standards as the U.S. and food poisoning might happen to at least some members of the group. To help minimize such risks, eat in the busiest restaurant you can find (for this will have a high turnover of food and the local appreciation is usually deserved) and drink only beverages that are boiled (like tea, coffee, or one of the many local hot drinks) or bottled (like water, *Coke* or *Pepsi*, or beer). Do not drink tap water! The project will provide bottled water. Restaurants recommended in guidebooks are usually a safe option and people will certainly suggest their favorites! It is recommended that you bring traveler's diarrhea medication prescribed by your doctor.

GRADING MATRIX

Undergraduate Students		Graduate Students	
Participation	30%	Participation	30%
Field notes	30%	Field notes	30%
Exam on archaeological field methods	20%	Exam on archaeological field methods	20%
5-10 page paper on a subject to be determined during the Field School	20%	10-15 page paper on the relation between theory 2 and practical field work on material from Mai Adrasha	

COURSE SCHEDULE

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

Our normal work week will be Monday to Friday. Saturday and Sunday are off. Students can use the weekends to venture out and travel the area. On some days, including some of the weekends, excursions will be organized to locations related to the project or the broader cultural context. The schedule below is subject to change, but outlines what will be covered during the field school.

Sunday: Arrival in Shire and transport to the dig house.

Week 1

	Morning	Afternoon
Monday	Lecture "Doing research in Ethiopia"	Tigrinya crash course/ Excavation English
Tuesday	Tour of Mai Adrasha and discussion of the location of trenches	Tigrinya crash course / Excavation English
Wednesday	Lecture: "Stratigraphic excavation and field recording I: introduction" Lecture: "Stratigraphic excavation and field recording II: recording deposits"	Tigrinya crash course / Excavation English Lecture "Community archaeology"

Thursday	Field practice: the use of a grid, laying out	Lecture: "Stratigraphic excavation and field	
	trenches.	recording III: recording cuts"	
	Field practice: leveling and total station or	Stratigraphic excavation and field recording IV:	
	dGPS.	structures"	
Friday	Field Work	Lecture: "The Monuments of Aksum"	
Saturday	Excursion to Axum		
Sunday	Day off		

Week 2

	Morning	Afternoon
Monday	Field Work	Lecture: "Stratigraphic excavation and field
		recording V: Stratigraphic Matrix PART 1
Tuesday	Field Work	Lecture: "Stratigraphic excavation and field
		recording VI: Stratigraphic Matrix PART 2
Wednesday	Field Work	Ethiopian Archaeology: an overview
Thursday	Field Work	Lecture: From matrix to report writing
Friday	Field Work	Modern Ethiopian History: an overview
Saturday	Field Work	Lecture: "Lithic analysis, including wear analysis"
Sunday	Day off	

Week 3

	Morning	Afternoon
Monday	Field Work	Lecture: "Pottery analysis"
Tuesday	Field Work	Lecture: "Surveying"
Wednesday	Field Work	Lecture: "Analyzing organic materials"
Thursday	Field Work	Lecture: "First Aid Conservation"
Friday	Field Work	Lecture: "Zooarchaeological research"
Saturday	Day off	
Sunday	Day off	

Week 4

	Morning	Afternoon
Monday	Field Work	Lecture: "Archaeobotanical research"
Tuesday	Field Work	Lecture: "Ethnoarchaeology"
Wednesday	Ethnoarchaeology exercise	Lecture: "Report writing"
Thursday	Report writing	Lecture: "Site management"
Friday	Exam and end-of-FS-dinner	
Saturday	Departure	

EQUIPMENT LIST

Required Tool Kit:

- ❖ Trowel (pointed, 5.5 x 2.5")
- ❖ Large paint brush (4-6")
- ❖ Small paint brush (2")
- Compass (for drawing circles)
- * Ruler or scale ruler (for drawing lines)
- Drawing pencils (automatic)
- Eraser
- ❖ 5 meter tape measure
- Line levels (2x)
- A Pens
- Notebook (preferably with lines on one side and mm paper on the other)

Recommended Additional items:

- Calipers (for measuring mm)
- 1 meter folding ruler
- Compass to determine North for photos
- Camera
- Drawing board
- North arrow / photo scale

Metric tape measures and rulers, as well as notebook, brushes, pens, pencils and erasers can be purchased in Shire

PRACTICAL INFORMATION

We have created a Google Map for you to view which has the location of some of the places which are mentioned in this syllabus (here).

Currency in Ethiopia

Travelers' checks are accepted at some banks in Ethiopia, but not always. It is better if you bring your ATM bankcard with you. You should also bring some cash — in major currencies (dollars, Euros and British Pounds are best) for emergency. Local ATM's will charge a fee for withdrawal and for the exchange rate. ATMs are available in most places, but often break, don't work during power failures or run out of currency. So it's best to exchange a little foreign currency for Ethiopian birr upon arrival. To avoid any problems with your bank, you should contact them before you leave and inform them that you will be traveling to Ethiopia, otherwise they will likely block your card if you try to use it outside the US. In Fall 2019, the interbank exchange rate was: 1 US \$ = 29 birr.

Travel

A few Ethiopian guidebooks are available. The Rough Guide and Brandt have recently published new editions and are recommended. If you travel often, you know that the best advice is to use common sense and to always try to be aware of your surroundings (e.g. don't be oblivious, don't be rude, don't just walk into a church or mosque without checking whether you would be welcome, etc.). In recent years, there has been unrest, but not in the Tigrinya region, which has remained quiet throughout. Petty crime in large cities is a problem, however, so keep a close eye on your personal belongings in Shire, Addis Ababa and Aksum.

You will find that at most places you can bargain for things that do not have a set price (and even those can sometimes be negotiated!). Hopefully you will have a chance to experience the great hospitality that Ethiopia has to offer.

Feel free to ask any of the team members about any concerns, questions, etc.

International Cooperation

The Shire Project will host students and professionals of archaeology from the United States, Canada, Netherlands, India, Italy, Egypt and of course, Ethiopia. With such an international team it is vital that all participants are willing to respect the cultures other than theirs. It is also important to remember that Ethiopia is a multi-cultural society with both large Christian and Muslim populations. Everyone should respect religious differences.

Weather in Ethiopia

Ethiopia has two main seasons: summer (wet) and winter (dry). We will be in Ethiopia during the dry winter season. Day temperatures should be in the low 70s Fahrenheit. They drop slightly at night. Generally, there will be low humidity, but it is likely to rain a few times while we are there.

Dig Attire

Modest dress is recommended as Ethiopia is a conservative country. Also covering up is common sense: the sun can be extremely damaging to uncovered skin, so loose clothing that covers most of the body should be worn while working in the outdoors. Make sure that your clothes are not see-through in the sun, both for reasons of modesty and sun protection. A wide brimmed hat is also vital for shielding

yourself from the heat and the damaging effects of sun exposure. A baseball cap is simply not enough; you want a hat with a wide brim to protect your face and neck. It is also a good idea to bring a scarf or bandana for your neck.

You will probably want to bring bug spray (repellant with a higher level of DEET will protect you better).

Walking boots can be useful in survey, but when in the trenches we work in shoes with very smooth soles or even socks to avoid making deep imprints or damaging features. For trench work avoid any shoes with heavy rubber soles.

REQUIRED READING (will be made available as PDFs)

The readings listed below will be posted on-line for students to access in advance of the project on the program Moodle page or box folder. You will also receive a manual, which has readings linked to each of the lectures.

Require reading before coming to Shire:

- Shire team (2016 2019) preliminary reports for the Authority for Research and Conservation of Cultural Heritage (ARCCH).
- Finneran, N. (2005). The Archeological Landscape of the Shire Region, Western Tigray, Ethiopia (Vol. 21, pp. 7–29). Presented at the Annales d'Ethiopie, Editions de la Table Ronde.
- Phillipson, D. W. (1998). *Ancient Ethiopia, Aksum, its Antecedents and Successors*. Chapter 1 Background pp. 10-32..
- Phillipson, D. W. (2012). "Aksumite Civilization: An introductory summary," in *Foundations of an African civilisation : Aksum & the northern Horn, 1000 BC- AD 1300*. Woodbridge, Suffolk; Rochester, NY: James Currey, Ch. 4 pg. 47-50.

Required reading while in the field (linked to lectures and excursions):

- UCLA Shire Archaeological Project Manual (will be provided after arrival in Shire)
- Phillipson, D. W. (2003). Aksum: an archaeological introduction and guide. Nairobi: British Institute in Eastern Africa.
- Sernicola, L. & Phillipson, L. (2014). Archaeological Expedition at Aksum (Ethiopia) of the University of Naples" L'Orientale"-2012 Field Season: Seglamen.

ADDITIONAL READING & OTHER SOURCES

- Fattovich, R. (2000). *The Aksum archaeological area: A preliminary assessment* (Vol. 1). Isituto Universitario Orientale, Centro Interdipartimentale di Servizi per l'Archeologia.
- Fattovich, R., & A Bard, K. (2001). The Proto-Aksumite period: an overview (Vol. 17, pp. 3–24). Presented at the Annales d'Éthiopie, Editions de la Table Ronde.
- Fattovich, R., Berhe, H., Phillipson, L., Sernicola, L., Kribus, B., Gaudiello, M., & Barbarino, M. (2010).

 Archaeological Expedition at Aksum (Ethiopia) of the University of Naples" L'Orientale"-2010
 Field Season: Seglamen.
- Finneran, N. (2007). The archaeology of Ethiopia. London; New York: Routledge.
- Finneran, N., Boardman, S., & Cain, C. (2000). A new perspective on the Late Stone Age of the northern Ethiopian highlands: excavations at Anqqer Baahti, Aksum, Ethiopia 1996. *AZANIA: Journal of the British Institute in Eastern Africa*, 35(1), 21–51.

- Finneran, N., & Phillips, J. (2003). The prehistoric settlement of the Shire region, Western Tigray, Ethiopia: Some preliminary observations. *Nyame Akuma*, (59), 26–33.
- Finneran, N., Phillips, J., Desie, A., Cain, C., Harlow, M., & Hagos, T. (2003). The archaeological landscape of the Shire region, Western Tigray, Ethiopia: A preliminary report on the 2001 field season.

 Azania: Archaeological Research in Africa, 38(1), 139–147.
- French, C., Sulas, F., & Madella, M. (2009). New geoarchaeological investigations of the valley systems in the Aksum area of northern Ethiopia. *Catena*, 78(3), 218–233.
- Gajda, I., & Dugast, F. (2013). Investigation on the Site of Wakarida (Sa'esi'e Ts'ada Emba Woreda/Tigrai).
- Harrower, M. J., McCorriston, J., & D'Andrea, A. C. (2010). General/specific, local/global: comparing the beginnings of agriculture in the Horn of Africa (Ethiopia/Eritrea) and southwest Arabia (Yemen). *American Antiquity*, 75(3), 452–472.
- Harrower, M.J. and A.C. D'Andrea (2014) Landscapes of State Formation: Geospatial Analysis of Aksumite Settlement Patterns (Ethiopia). *African Archaeological Review*.
- Japp, S., Gerlach, I., Hitgen, H., & Schnelle, M. (2011). Yeha and Hawelti: Cultural contacts between Saba'and D'MT—New research by the German Archaeological Institute in Ethiopia. In *Proceedings of the Seminar for Arabian Studies* (Vol. 41, pp. 145–160).
- Phillipson, D. W. (1993). The antiquity of cultivation and herding in Ethiopia. *Archaeology of Africa : Foods, Metals, and Towns / Edited by Thurstan Shaw, Paul Sinclair, Bassey Andah and Alex Okpoko.*, 334–357.
- Phillipson, D. W. (2003). *Aksum : an archaeological introduction and guide*. Nairobi: British Institute in Eastern Africa.
- Phillipson, D. W. (2012. Foundations of an African civilisation : Aksum & the northern Horn, 1000 BC- AD 1300. Woodbridge, Suffolk; Rochester, NY: James Currey.
- Schmidt, P. R., Curtis, M. C., & Teka, Z. (2008). The archaeology of ancient Eritrea. Red Sea Press, Inc.
- Terwilliger, V. J., Eshetu, Z., Huang, Y., Alexandre, M., Umer, M., & Gebru, T. (2011). Local variation in climate and land use during the time of the major kingdoms of the Tigray Plateau in Ethiopia and Eritrea. *Catena*, 85(2), 130–143.
- Wolf, P., & Nowotnick, U. (2010). The Almaqah temple of Meqaber Ga´ewa near Wuqro (Tigray, Ethiopia) (pp. 367–380). Presented at the Proceedings of the Seminar for Arabian Studies, JSTOR.