



MASIS BLUR ARCHAEOLOGICAL PROJECT, ARMENIA

Course ID: ARCH 365AM

June 24–July 28, 2018

FIELD SCHOOL DIRECTORS:

Dr. Alan Farahani, Postdoctoral Fellow & Director of the Ancient Agriculture and Paleoethnobotany Laboratory, Cotsen Institute of Archaeology at UCLA (alanfarahani@ucla.edu)

Ms. Kristine Martirosyan-Olshansky, Assistant Director of the Research Program in Armenian Archaeology and Ethnography, Cotsen Institute of Archaeology at UCLA (kristineolsh@ucla.edu)



INTRODUCTION

The Southern Caucasus, located between Europe and Asia, has served as an important corridor for human movement and migration since the Paleolithic period connecting Anatolia, the Near East, Europe, and Asia. The Ararat plain in particular was among the most important routes during the Neolithic period. It is within this landscape that all known Neolithic settlements of Armenia are concentrated. The site of Masis Bur, a Neolithic sedentary agricultural settlement, is located on the ancient bank of the Hrazdan river, the largest river which flows through Armenia and drains into the Araks River along the border between Armenia and Turkey. Once a 2.5-meter-high anthropogenic mound, today the site can be recognized only through artifact scatters across the agricultural field. The mound was destroyed during the early 1970s, after which the Department of Archaeology of Yerevan State University conducted two seasons of exploratory excavations in the mid-1980s, documenting well-preserved architecture and associated features built from plastered mud. The site was dated to the Late Neolithic Period (ca. 5600-5400 BC) based on ceramic and lithic typology.

In 2012, our joint Armenian-American team began systematic excavations at Masis Blur under the auspices of Institute of Archaeology and Ethnography in Yerevan (Armenia) and the Cotsen Institute of Archaeology at UC Los Angeles. Our work during three seasons revealed a 3-meter deep uninterrupted cultural sequence dated to around 6000 BC through radiocarbon dating methods (ca. 6200-5400 cal).

BC). The settlement consists of circular plastered architecture with associated silos, hearths, workshops, various activity areas, and trash middens. It contains a rich collection of obsidian and bone tools, ground stone industry, ceramic fragments, zooarchaeological and botanical remains, as well as artifacts of personal adornment. The site is one of the earliest Neolithic communities recorded in the Southern Caucasus to date and has the potential to offer an important insight into the various processes that accompanied the establishment of the first farming economies the region.

While most Neolithic research in the southern Caucasus has focused on vertical excavations, giving us an in-depth knowledge of the *longue durée* of the site occupation, our knowledge of horizontal spread and planning of these settlements is still sparse. Thus, our research at Masis Blur focuses on horizontal exposure of the site. The excavations of two nearby Neolithic sites (both 10-12 km from Masis Blur) over the last decade give us a good understanding of building phases and the general depth Neolithic settlements. However, we still do not know how densely these settlements were built at a given phases or how living and activity areas were organized at a settlement level. We believe that a large horizontal exposure, combined with special analysis, in addition to techno-chronological studies, will increase our understanding of cultural developments in the Ararat plain during the Neolithic period.

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 institutions 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 additional transcript may be sent to the student's home institution at no additional cost. Additional transcripts may be ordered at any time through the National Student Clearinghouse: <http://bit.ly/2hvurkl>.

COURSE OBJECTIVES

The objective of the course is to enable students to better understand how archaeological field research is carried out, how finds are processed and how new research questions or projects are formulated based on discoveries made during excavations. In order to achieve these goals, the course is divided into two primary sections: 1) a practical working knowledge of *archaeological field methods* through hands-on participation, such as excavation, documentation, laboratory analysis, cataloging and conservation; and 2) formulation of *research questions and research design*, including data interpretation and comparative analysis.

The students will be involved in all the aspects of archaeological field research:

- Excavations, documentation, find processing, and cataloging;
- The archaeology of the Neolithic period in the Southern Caucasus in general and Armenia in particular;
- Find processing and documentation procedures: cleaning, sorting, labeling, documenting, and photography.
- Soil sampling strategies specific to prehistoric sites, flotation and processing of soil samples;

The Masis Blur Field School project provides training for BA and MA students from Armenia. The field school is an opportunity to work together, learn from, and to share your personal experience with an international team of scholars and students. The Field School is a part of an existing research project directed by Kristine Martirosyan-Olshansky (UCLA) and Dr. Pavel Avetisyan (IAE).

Your work within the field school will be part of a publication effort undertaken by the two directors. Students expressing high level of scholarly interest in one or another aspect of the project and interest in a more focused research will have the opportunity to co-write a paper with one of the scholars of the project, with approval of the two co-directors.

DISCLAIMER – PLEASE READ CAREFULLY

Archaeological fieldwork involves demanding physical work in the outdoors with little or no shade. You should be aware that conditions in the field are different than those you experience at home or around your dorms. Note that a sub-tropical climate dominates in the Ararat plain, making summers hot with temperatures between 35-40°C (95-105°F). Rainy days in this season are rare but not unheard-of.

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

PREREQUISITES

There are no prerequisites for this course. Students from any major may apply to this program.

LEARNING OUTCOMES

Upon successful completion of this course, students will have acquired:

- A basic understanding of archaeological research design and the interrelation between research questions, research design, data acquisition and data processing
- Base set of skill, both practical and intellectual, necessary for conducting archaeological excavations
- Introductory understanding of archaeological theory and archaeometry
- Principles and procedures behind finds processing and documentation, including photography and database entry
- Introductory understanding of socio-cultural developments in Armenia ca. 12,000 BC to the rise of the first empires ca. 800 BC.

GRADING MATRIX

- 50% Attendance, participation, and demonstration of good citizenship (i.e. engagement, collegiality, punctuality) in daily field and laboratory work, lectures, and field trips.
- 25% Field notebook that will be submitted and evaluated at the end of the course. The notebook will detail daily activities and observations both in the field and the lab, as well as trench drawings.
- 25% Final report due at the end of the course. Students will submit a 2-3-page report either 1) outlining the main developments and results in the excavation unit to which they were assigned and how these contributed to the overall goals of the project, or 2) on the analysis of a given artifact group, such as ceramics, lithics, faunal remains, bone tools, etc. The report will include preliminary typological classification, basic statistics, and interpretations based on results of their research. Due July 27, 2018.

Graduate Students are required to submit an 8 to 10-page research paper in addition to the site report. The topic should be discussed with the field school co-directors and submitted up to two weeks after the program's conclusion.

TRAVEL & MEETING POINT

Students should arrive to the Yerevan International Airport (EVN) on June 24, 2018. Student will be met by project staff members at the arrival area. Students must send flight arrival information to project directors and coordinate meeting times.

If you missed your connection or your flight is delayed, please call, text or email the project director immediately. A local emergency cell phone number will be provided to all enrolled students.

VISA REQUIREMENTS

Citizens of the US, UK and Canada are allowed visa-free entry to Armenia for up to 180 days per year. Passports must be valid for at least 6 months past departure date from Armenia. Student should enter Armenia as tourists.

Citizens of other countries are asked to visit the Armenia Consulate General web page at their home countries for specific visa requirements.

ACCOMMODATIONS

Lodging: Students and staff will be staying in a dedicated excavation house in a quiet neighborhood in Yerevan. The accommodations are shared bedrooms, with two to five persons per room. Western-style showers and plumbing will be available at the excavation house, along with a kitchen and basic supplies for after-hours self-service. Sheets, pillows, and towels will be provided, but participants should bring personal hygiene products or purchase these in Yerevan.

The dig house will have WIFI.

Meals: Three meals (Armenian cuisine) per day are provided during the work week (Monday-Saturday). Students are responsible for their weekend meals (Sat dinner and Sun breakfast and lunch). This program can accommodate vegetarian and vegan diets. However, kosher and gluten-free diets are not possible to accommodate at this location.

COMPUTERS, MAIL, AND CELL PHONES

You are encouraged to bring a laptop, tablet, or phone to keep in contact with family and friends at home. Having a laptop will also facilitate preparations for your assignments, presentations, and reports. The project has only one laptop, which is stationary and will be used for lab work and data entry.

Unlocked/international cell phones can be used in Armenia. You can purchase a local SIM card for around \$3 (USD) and add minutes/data as necessary. These services are quite inexpensive in Armenia. To be contacted in Armenia one should dial **011 374** (or +374) before dialing your number. We will be able to provide you and your family members with an emergency number, where you can be reached if you choose not to bring/activate your phone in Armenia. However, you will not be able to make outgoing international calls from this number. A week before the start of the field school, we will forward you the phone number of the director and project staff in case you need to contact us before or upon arrival to the airport.

Be aware that Armenia has different electrical plugs from the US. They use a European plug with two circular pins and operate on a 220V 50Hz. Be sure to bring plug converters and if your electronics require, a power converter.



PRACTICAL INFORMATION

Armenian dialing code: +374

Time zone: UTC +4. This means in June/July it will be 11 hours ahead of PST.

Measuring units: metric system (degrees C, meter, gram, liter)

Currency: Armenian Drams. You cannot pay in USD, Euros, or other foreign currency, thus plan accordingly. Exchanging money is easy and can be done throughout the city. Money can be withdrawn either from the bank or ATMs, credit cards are accepted in most restaurants and some shops around Yerevan. You may need to inform your bank/credit card company of international travel and check regarding international transaction fees. There are plethora of small markets and shops around the city, which only accept Armenian drams.

COURSE SCHEDULE

Our normal work week will be Monday to Friday, Saturdays are dedicated to field trips and Sundays are off. Students are free to venture out and travel on their days off across Armenia. Project staff will gladly provide advice and guidance if needed.

Activities

Excavations: Students will participate in guided excavations of the Neolithic settlement Masis Blur.

Recording: Students will participate in filling out specific excavation forms, planning, and recording the excavated stratigraphy.

Flotation and sieving: Students will participate in the retrieval processes for archaeobotanical remains.

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

Database: Students will participate in updating the project database.

Laboratory: Scheduled lab tasks will include washing, sorting, and cataloging of finds.

Depending on excavation progress, students may be put on a rotation schedule where one group stays in the dig-house to do flotation/sieving, process finds, etc., while the second group excavates.

Required Readings: Please note, that Week 1 is a little heavy on readings as it is meant to prepare you for fieldwork, as well as give you a background on Armenia and Armenian archaeology. Try to complete these readings before you arrive to Armenia.

Daily Schedule Weeks 2-5:

5:00 AM – light breakfast

5:30 AM – bus departs from dig house to site

6:00 AM-9:00 AM – first period of excavations

9:00 AM-9:30 AM – second breakfast at the site
 9:30 AM-12:00 PM – second period of excavations
 12:00 PM-12:15 PM – equipment clean-up
 12:15 PM – return to dig house
 1:00 PM – group lunch
 2:00 PM-4:00 PM – free time
 4:00 PM-6:00 PM – lecture or lab
 6:00 PM-7:00 PM – free time
 7:00 PM – group dinner

Date	Morning	Afternoon
Sunday, June 24 Day 1	Students arrive to Yerevan Formal Introductions and group dinner at 7pm	
Week 1		
Monday, June 25 Day 2	7am: Breakfast 8am: Orientation & Intro to MBAP 10 am: depart for Masis Blur site visit	Lecture 1: Intro to Armenia: History, Language, and Culture Read: Martirosyan-Olshansky et al. 2013 Petrosyan 2001 Catch-up on readings; get accustomed to time difference
Tuesday, June 26 Day 3	7am: Breakfast 10am: visit National History Museum; explore downtown Yerevan	Lab: Intro to Artifacts from Masis Blur excavated during previous seasons Lecture 2: History of Archaeological Research in Armenia Read: Lindsay and Smith 2006
Wednesday, June 27 Day 4	7am: Breakfast 8am: Introduction to the MBAP Field Journal, Context Sheets, Log Books, and, Database	Lab: Find Processing and Documentation Lecture 3: Introduction to Neolithic research in the Southern Caucasus Read: Chataigner et al. 2014 Badalyan, R et al. 2010
Thursday, June 28 Day 5	Fieldwork: Field clearing, laying out the grid, taking stock of equipment, etc.	Lecture 4: Introduction to Field Methods Read: Hester et al. 2009, Ch 1 and 5, Roskams 2001, Ch 12
Friday, June 29 Day 6	Fieldwork	
Saturday, June 30 Day 7	FIELD TRIP 1: Erebuni Urartian Capital (8 th c. BC) – Garni Temple (3 rd c. AD) – Geghard rock-carved monastery (13 th c. AD) – Medieval capital Dvin? (4 th –	

	13 th c. AD) - Zvartnoc Cathedral (7 th ca. AD)	
Sunday, July 1 Day 8	FREE DAY	
Week 2		
Monday, July 2 Day 9	Fieldwork	
Tuesday, July 3 Day 10	Fieldwork	Lecture 5: The Neolithic in West Asia and Beyond Read: Willcox 2012
Wednesday, July 4 Day 11	Fieldwork	
Thursday, July 5 Day 12	Fieldwork	Lecture 6: Introduction to Archaeological Sciences Read: Barnard et al. 2011 Lindsay et al. 2014
Friday, July 6 Day 13	Fieldwork	
Saturday, July 7 Day 14	FIELD TRIP 2: Areni-1 Cave site (4500 BC) - Noravanq Monastery (13 th c. AD) – Egheghnadzor Museum, including flint knapping demonstration - lunch by the river - Selim Caravansary (14 th c. AD “Holiday Inn” for merchants on the silk route) – back to dig house	
Sunday, July 8 Day 15	DAY OFF	
Week 3		
Monday, July 9 Day 16	Fieldwork	
Tuesday, July 10 Day 17	Fieldwork	Lecture 7: Typology, Classification and Their Relation to Artifact Function Read: Andrefsky 2005
Wednesday, July 11 Day 18	Fieldwork	
Thursday, July 12 Day 19	Fieldwork	Lecture 8: Introduction to Lithic Analysis Read: Chabot et al. 2009
Friday, July 13 Day 20	Fieldwork	
Saturday, July 14 Day 21	Fieldwork	
Sunday, July 15 Day 22	FIELD TRIP 3: Odzabert (Urartian/post-Urartian settlement) – Lake Sevan, sunbath and lunch – Noratus cemetery with the largest collection of <i>khachqars</i> (cross-stones) (10 th -17 th c. AD) – back to dig house	
Week 4		
Monday, July 16		

Day 23		
Tuesday, July 17 Day 24		Lecture 9: Introduction to Paleoethnobotany Read: Farahani <i>in press</i>
Wednesday, July 18 Day 25		
Thursday, July 19 Day 26		Lecture 10: Introduction to Zooarchaeology Read: Reitz and Wing 2008, Ch. 1
Friday, July 20 Day 26		
Saturday, July 21 Day 28	FIELD TRIP 4: Saghmosavank Monastery (13 th c. AD) on the Kasakh gorge – Aparan/Gegharot Late Bronze Age fortress - Gyumri (old Alexandrapol), cultural capital of Armenia – lunch in a small gorge in Gyumri – back to dig house	
Sunday, July 22 Day 29	DAY OFF	
Week 5		
Monday, July 23 Day 30	Wrapping up field work	Wrapping up Lab work Lecture 11: Introduction to Writing an Archaeological Report
Tuesday, July 24 Day 31	Wrapping up field work	Wrapping up Lab work
Wednesday, July 25 Day 32	Wrapping up field work	Students begin writing their reports
Thursday, July 26 Day 33	Report writing	Report writing/Presentation prep
Friday, July 27 Day 34	Report Writing Evaluations	6:00pm Group Dinner at restaurant
Saturday, July 28 Day 35	LAST DAY AT THE DIG HOUSE FOR FIELD SCHOOL STUDENTS	

EQUIPMENT LIST

All equipment necessary for fieldwork (e.g. trowels, brushes, etc.) and lab work (pencils, notebooks, etc.) will be provided. However, below is a short list of items each student should bring to the field.

- Work-shoes (closed-toe)
- Clothing suitable for outdoor activities. Consider weather conditions for hot and sunny days, with possible showers. Shorts are not permitted on the excavation site.
- At least one set of “restaurant worthy” clothing
- Hat for fieldwork/day trips
- Work gloves
- Light raincoat
- Water bottle
- Sunglasses (with UV protection)

- Day backpacks for carrying personal equipment to/from the site.
- Sunblock with high SPF
- Washcloth
- Stuff-sack for storing laundry, toiletries
- Medication – it is not necessary to bring over the counter medication, since these can be purchased in Armenia, however, if you are accustomed to specific brands (e.g. Advil or Tylenol) or required prescription medication, you must bring these with you.
- Laptop computer or tablet, while not mandatory will be useful

MANDATORY READINGS

- Andrefsky, W. 2005. *Lithics. Macroscopic Approaches to Analysis*. 2nd Edition, Cambridge University Press, New York, pg. 1-10.
- Badalyan, Ruben, Armine Harutyunyan, Christine Chataigner, Françoise Le Mort, Jacques Chabot, Jacques Élie Brochier, Adrian Bălăşescu, Valentin Radu, and Roman Hovsepyan. 2010. "The Settlement of Aknashen-Khatunarkh, A Neolithic Site in the Ararat Plain (Armenia): Excavation Results 2004-2009" in, *Türkiye Bilimler Akademisi Arkeoloji Dergisi (TÜBA-AR)* (Ankara), Turkish Academy of Sciences Journal of Archaeology, Ankara, Turkey, pg. 185-218.
- Barnard, H., A.N. Dooley, G. Areshian, B. Gasparyan, K. F. Faull., 2011. in *Journal of Archaeological Science*, 38, 977-984. Chabot, Jacques, Christine Chataigner, and Ruben Badalyan. 2009. "A neolithic obsidian industry in the Southern Caucasus region: Origins, technology and traceology." In *Proceedings, ISA 2006 : 36th International Symposium on Archaeometry, 2-6 May 2006*, edited by Jean-François Moreau, Reginald Auger, Jacques Chabot and Anja Herzog. Québec: CELAT, pg., 151-160.
- Chataigner, C., Badalyan, R., & Arimura, M. (2014-10-02). The Neolithic of the Caucasus. Oxford Handbooks Online. Retrieved 13 Dec. 2017, from <http://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199935413.001.0001/oxfordhb-9780199935413-e-13>
- Farahani, A. *in press*. "Paleoethnobotany and Ancient Agriculture" in T. Howe and D. Hollander (eds.), *A Companion to Ancient Agriculture*. New York: Wiley Blackwell.
- Hester, T.R., H.J. Shafer, K. L. Feder. 2009. *Field Methods in Archaeology*. 7th Edition. Routledge, New York, 1-4 and 69-112.
- Lindsay, I. and A. Smith. 2006. "A History of Archaeology in the Republic of Armenia." in *Journal of Field Archaeology*, Vol. 31, No. 2, 165-184.
- Lindsay, I., J. Leon, A.T. Smith, C. Wiktorowicz, 2014. "Geophysical survey at Late Bronze Age forges: comparing methods in the diverse geological contexts of Armenia." in *Antiquity*, 88, 578-595.
- Martirosyan-Olshansky, K., G. Areshian, P. Avetisyan, and A. Hayrapetyan. 2013. 'Masis Blur: A Late Neolithic Settlement in the Plain of Ararat', *Backdirt. Annual Review of tech Cotsen Institute of Archaeology at UCLA*: 142-146.
- Petrosyan, H. 2001. In the Beginning. in L. Abrahamian, N. Sweezy, S. Smweezy (eds.), *Armenian Folk Arts, Culture, and Identity*, Indian University Press, Bloomington, Indiana, 3-22.
- Reitz, E.R. and E.S. Wing. 2008. *Zooarchaeology, Second Edition*. Cambridge University Press, Ch 1, 1-10.
- Willcox, G. 2012. The Beginnings of Cereal Cultivation and Domestication in Southwest Asia. In D. Potts (ed). in *A Companion to the Archaeology of the Ancient Near East*, 165-180. London: Blackwell Publishing.
- Zeder, M.A. and B. Hesse. 2000. The initial domestication of goats (*Capra hircus*) in the Zagros mountains 10,000 years ago. *Science*, 287, 2254-2257.

RECOMMENDED READINGS

- Arimura, Makoto; Gasparyan, Boris; Chataigner, Christine. 2012. 'Prehistoric sites in Northwest Armenia: Kmlö-2 and Tsaghkahovit.' in Roger; Curtis Matthews, John (ed.), *Proceedings of the 7th International Congress on the Archaeology of the Ancient Near East*, Harrassowitz Verlag: Germany, pg. 135-149.
- Bălăşescu, Adrian. 2015. "Zooarchaeological study for mammals for Masis Blur (Armenia)." Unpublished reported submitted to the Masis Blur Archaeological Project's Field Director.
- Bar-Yosef, Ofer. 2007. Forward. In Alan. H. Simmons (ed) *The Neolithic Revolution in the Near East*, University of Arizona Press, Tucson, Arizona, pp. ix-xiii.
- Chabot, Jacques, and Jacques Pelegrin. 2012. 'Two Examples of Pressure Blade Production with a Lever: Recent Research from the Southern Caucasus (Armenia) and Northern Mesopotamia (Syria, Iraq).' in Pierre M Desrosiers (ed.), *The Emergence of Pressure Blade Making. From Origin to Modern Experimentation*, Springer US: Québec, pg. 181-198.
- Crabtree, P. 1990 "Zooarchaeology and Complex Societies: Some Uses of Faunal Analysis for the Study of Trade, Social Status, and Ethnicity. *Archaeological Method and Theory*, VCol. 2, pg. 155-205.
- Hamon, Caroline. 2008. "From Neolithic to Chalcolithic in the Southern Caucasus: Economy and Macrolithic Implements from Shulaveri-Shomu Sites of Kwemo-Kartli (Georgia)". *Paléorient*, 34: 85-135.
- Hovsepyan, R. & Willcox, G. 2008 "The earliest finds of cultivated plants in Armenia: evidence from charred remains and crop processing residues in pisé from the Neolithic settlements of Aratashen and Aknashen" *Vegetation History and Archaeobotany*, 17 (Suppl 1): 63.
- Kohl, P. L. and G. R. Tsetschladze, 1995. Nationalism, Politics, and the Practice of Archaeology in the Caucasus. In *Nationalism, Politics, and the Practice of Archaeology*, edited by P. L. Kohl and C. Fawcett, Cambridge University Press, Cambridge, pg. 149-174.
- Korobkova, G.F. 1996. "The Neolithic Chipped Stone Industries of the Southern Caucasus." In *Neolithic Chipped Stone Industries of the Fertile Crescent, and Their Contemporaries in Adjacent Regions*, edited by Stefan K Kozłowski and Hans Georg K Gebel. Warsaw University: ex oriente, pg. 57-89.
- Meshveliani, T. 2013. 'On Neolithic Origins in Western Georgia', *Archaeology, Ethnology and Anthropology of Eurasia*, 41: 61-72.
- Palumbi, G. 2007. 'A preliminary analysis on the prehistoric pottery from Aratashen (Armenia).' in B. Lyonnet (ed.), *Les Cultures du Caucase (VIe - IIIe Millénaires Avant Notre Ère). Leurs Relations Avec le Proche-Orient*, CNRS: Paris, pg. 63-76.
- Pearson, J. A., H. Buitenhuis, R. E. M. Hedges, L. Martin, N. Russell and K. C. Twiss. 2007. New light on early caprine herding strategies from isotope analysis: a case study from Neolithic Anatolia. *Journal of Archaeological Science* 34(12):2170-2179.
- Poulmarc'h, Modwene, and Françoise Le Mort. 2016. 'Diversification of the funerary practices in the Southern Caucasus from the Neolithic to the Chalcolithic', *Quaternary International*, 395: 184-93.
- Ricci, A., B. Helwing, and T. Aliyev. 2012. 'The Neolithic on the Move: High Resolution Settlement Dynamics Investigations and Their Impact on Archaeological Landscape Studies in Southwest Azerbaijan', *eTopoi*, 3: 369-75.
- Rice, M.P., 1999, "On the Origin of Pottery," *Journal of Archaeological Method and Theory*, Vol. 6. No. 1, pg. 1-54.
- Roskams, S. 2001. *Excavation*. Cambridge: Cambridge University Press.
- Zeder, Melinda A. and Brian Hesse. 2000. The initial domestication of goats (*Capra hircus*) in the Zagros mountains 10,000 years ago. *Science* 287:2254-2257.