Dr. SARAH HELEN PARCAK

Associate Professor and Director, Laboratory for Global Observation

Dept. of Anthropology, The University of Alabama at Birmingham Rm 314, 1401 University Blvd, Birmingham, Alabama 35294 Phone: 205-996-7981 Fax 205-996-7977

sparcak@uab.edu

Education: Cambridge University, PhD 2005

Trinity College, Department of Archaeology (Egyptian Archaeology)

"Settlement pattern studies in the Nile's floodplain: Satellite imagery analysis and ground

survey in Middle Egypt and the Delta."

Cambridge University, M. Phil 2002

Trinity College, Department of Archaeology (Egyptian Archaeology)

"Applications of satellite imagery analysis in Egyptology: El-Markha Plain, South Sinai,

Egypt"

Yale University, BA 2001

Near Eastern Languages and Civilizations (Egyptology) and Archaeological Studies

Positions Held:

2007- Founding Director, University of Alabama at Birmingham Laboratory for Global

Observation

• Responsible for initiating, developing, and running UAB's satellite remote sensing laboratory, including research initiatives, faculty/student training and budget

management, teach remote sensing courses for UAB students and faculty

Oct. 2011- Associate Professor: Dept. of History and Anthropology, University of Alabama at

Birmingham

Aug. 2006-Sept. 2011 Assistant Professor (Tenure-Track): Dept. of History and Anthropology, University

of Alabama at Birmingham

June 2007-Present Secondary appointments: Departments of Epidemiology and Environmental Health

Sciences, School of Public Health, University of Alabama at Birmingham

2005- 2006 Sessional Lecturer: University of Wales-Swansea

Honors:

2013 National Geographic Society Fellow

2012 UAB National Alumni Society Honorary Alumni Award 2012 National Geographic Society Emerging Explorer

2012 TED Fellow

2011 UAB Exceptional Innovation Award

2010 UAB Graduate Dean's Award for Excellence in Mentorship

2010 Elected as a Fellow to the Society of Antiquaries 2009-12 Archaeological Institute of America Featured Lecturer

2009 Alabama Leadership Initiative, selected as one of 50 Young Alabama Leaders

Grants/Internal UAB Support:

(under review):

External Grants

2012-13	\$50,000	Nat. Geographic Innovation Challenge Award	
2012-13	\$15,000	National Geographic Explorers Award	(PI)
2012-13	\$10,000	National Geographic Society	(PI)
2011-13	\$104,622	NSF-USAID US-Egypt Research Grant	(PI)
2007-8	\$87,725	NASA-UAB Cooperative Agreement	(Co-PI)

[&]quot;A global archaeological site database project" and "Mapping site looting from space" (National Geographic)

Internal UAB support

2009-2010	\$70,000	UAB Internal support for Research lab (PI)	
	\$1,300	UAB Sterne Library Grant (PI)	
2007-8			
	\$30,000	UAB Research Endowment Fund	(PI)
	\$15,000	NSF ADVANCE Faculty award (PI	
	\$10,000	UAB Faculty Development Grant (PI)	
	\$1,765	UAB Sterne Library Grant	(PI)
2006-7	\$20,544	NSF ADVANCE grant	(PI)
Other outside support/contracts/fur	nding		
2009-2011	\$201,600	NASA DEVELOP funding	(CO-I)
2009-2010	\$408,000	BBC "Project Egypt: What Lies Beneath" (PI)	
	\$155,000	DOD LEGACY Fund	(CO-PI)
2008-9 2007-8	\$100,000	NASA DEVELOP funding	(CO-I)
	\$70,000	NASA DEVELOP funding	(CO-I)
2006-7	\$2,000	Seven Pillars of Wisdom Fund (UK) (PI)	
Cambridge			
2002-2005	\$109,000	NSF Grad. Fellowship/ Trinity College Emoluments Fundaments	
2003-2004	\$21,894	Ambassador's Fund for Cultural Preservation	
2004-2005	\$6,000	Egypt Exploration Society Centenary Award	
	\$1200	Thomas Mulvey Egyptology Fund	
	\$150	Department of Archaeology field fund	

2003 (\$2,820) Trinity College Field Fund, Thomas Mulvey Egyptology Fund, National Science Foundation Travel Grant, Dorot Foundation ASOR Travel Scholarship, Department of Archaeology field fund

2002 (\$1,500) Trinity College Field Fund, Trinity College Sporting Fund, Department of Archaeology field fund, Dorot Foundation ASOR Travel Scholarship

2001-02 \$35,000 Henry Fellowship for graduate study at Cambridge

Honorable Mention NSF Graduate Fellowship

Publications:

Books:

2009 Satellite Remote Sensing For Archaeology, Routledge

Articles:

Under revision: (with Simon Keay and Kris Strutt), "High Resolution space and ground-based remote sensing and implications for landscape archaeology: the case from Portus, Italy," *Journal of Archaeological Science*.

Peer-reviewed articles

2012 (with G.Mumford) "Satellite Imagery detection of a possible hippodrome and other features at the Ptolemaic-Roman port town of Taposiris Magna," *Journal of Ancient Egyptian Interconnections*, Volume 4 (4):30-34 2010 ""Developing GIS-based eastern equine encephalitis vector-host models in Tuskegee, Alabama", *International Journal of Health Geographics* 9:12, Benjamin G Jacob, Nathan D Burkett-Cadena, Jeffrey C Luvall, **Sarah H Parcak**, Christopher JW McClure, Laura K Estep, Geoffrey E Hill, Eddie W Cupp, Robert J Novak, Thomas R Unnasch.

2007 "The Middle Egypt Survey Project: 2005/6 season report," Journal of Egyptian Archaeology 92, 3-8

2007 "Going, going, gone: towards a satellite remote sensing methodology for monitoring archaeological tell sites under threat in the Middle East," *Journal of Field Archaeology* 42, 61-83

2005 "Satellites and Survey in Middle Egypt," Egyptian Archaeology, Fall/Winter 2005, 28-32

2004 "Pharaonic ventures into South Sinai," (co-author G. Mumford) Journal of Egyptian Archeology 89, 83-116.

2004 "Satellite Remote Sensing Resources for Egyptology," in *Gottinger Mitzellen* 198, 63-78.

2003 "New methods for Archaeological Site Detection *via* satellite image analysis: Case Studies from Sinai and the Delta, *Archaeologia Polonia* 41, 243-245.

"Satellite imagery analysis and new fieldwork in South Sinai, Egypt (El-Markha Plain)," (co-author G. Mumford) *Antiquity* 76 (4), 953-4.

Conference Proceedings

*2010 "Pushing the envelope for satellite archaeology in Egypt: Quickbird feature detection, predictive site modeling, and thermal site signatures," *Space, Time, Place: Proceedings of the 3rd International Conference for Remote Sensing in Archaeology*, Archaeopress, 17-23

2004 "Finding new archaeological sites in Egypt using satellite remote sensing: Case studies from Middle Egypt and the Delta," International Conference for Remote Sensing Archaeology, 136-141.

Invited book Chapters/Articles: (*= peer reviewed)

- *2013 Remote Sensing in the Valley of the Kings and its hinterland, Oxford Encyclopedia of the Valley of the Kings, R. Wilkinson (ed.), 8,000 words, ch. 33 (in press).
- *2010 "Protecting Global Heritage from Space In Times of War," for *Archaeology, Cultural Property, and the Military* (ed. Laurie Rush), International Center for Cultural and Heritage Studies, Newcastle, 167-176.
- *2010 "The physical context of ancient Egypt," The Blackwell Companion to Ancient Egypt (ed. Alan Lloyd), 4-22.
- *2009 "The skeptical remote senser," *Studies in Honor of Barry J. Kemp*, ed. Aidan Dodson and Salima Ikram, American University in Cairo Press, 362-382
- *2008 "Survey in Egyptology," Egyptology Today (ed. R. Wilkinson), Cambridge University Press, 41-65.
- 2008 "Punctuating our own equilibrium," M. Kurata, ed., UAB Campus Conversations
- *2004 "Egypt's Old Kingdom 'Empire' (?): A case study focusing on South Sinai," in *Egypt, Israel and the Ancient Mediterranean World: Studies in Honor of Donald B. Redford.* Brill, Problem der Ägyptologie, Band 20, Leiden, 41-60.

Other (non refereed conference proceedings, encyclopedia articles; reports):

2013 slate.com "Eat your heart out, Indiana Jones"

 $http://www.slate.com/articles/technology/future_tense/2013/10/space_archaeology_this_is_the_best_time_ever_to_be_an_archaeologist.html$

- 2009 "Satellite Archaeology", ABC-CLIO online perspective essay
- 2005 Encyclopedia of Anthropology, Editorial Board (reviewed/edited articles), Sage Publications
- 2005 "Fayoum," Encyclopedia of Anthropology, Sage Publications, 749-750
- 2005 "Pyramids," Encyclopedia of Anthropology, Sage Publications, 1972-1975
- 2005 "Ancient Egypt," Encyclopedia of Anthropology, Sage Publications, 787-797
- 2004 "Results from the 2004 Middle Egypt Survey," The Egyptian Museum Bulletin, A publication of the Supreme Council For Egyptian Antiquities, Cairo, 6 pages.
- 2004 "Results from the satellite remote sensing survey of Egypt," report submitted to the Ambassador's Fund for Cultural Preservation, US State Department
- 2003 "Climate change and understanding settlement patterns in Egypt's northeast Delta," Proceedings of American Geophysical Union, San Francisco, CA
- 2003 "Remote sensing in Egypt: results from archaeological prospecting in the eastern Delta (summer 2003)," Proceedings of ACACIA, Cologne, Germany, October 2nd-4th.
- 2002 "Combining old and new approaches in the detection, survey, and excavation of Pharaonic and indigenous sites in South Sinai," Proceedings of Ancient Egypt, World Congress for Middle Eastern Studies, Mainz, Germany
- 2002 "Pharaonic ventures into South Sinai," *Journal for the Society for the Study of Egyptian Antiquities Winter 2002 Newsletter* (co-authored with G. Mumford), 5.

Archaeological Fieldwork:

Season	Site/Project	Region	Country	Position	Nature and Period of work
2010 (4 weeks)	El-Markha Plain	W. Sinai	Egypt	Co-Director	Mining, 2500BC-1500BC
2008 (4 weeks)	El-Markha Plain	W. Sinai	Egypt	Co-Director	Mining, 2500BC-1500BC
2007	Sohag	Middle	Egypt	Satellite specialist	Survey 400-800AD
2007 (2 weeks)	Tell El-Amarna	Middle	Egypt	Survey Director	Survey/Coring, 600BC-800AD
2006+	R.E.S.C.U.E	Delta	Egypt	Co-Director	Survey/Mapping 3000BC-1000AD
2006 (4 weeks)	Tell El-Amarna	Middle	Egypt	Survey Director	Survey/Coring, 600BC-800AD
2005(2 weeks)	El-Markha Plain	W. Sinai	Egypt	Co-Director	Mining, 2500BC-1500BC
2005 (4 weeks)	Tell El-Amarna	Middle	Egypt	Survey Director	Survey/Coring, 600BC-800AD
2004(6 weeks)	El-Markha Plain	W. Sinai	Egypt	Co-Director	Mining, 2500BC-1500BC
2004 (2 weeks)	Tell Tinnis	Delta	Egypt	Site Surveyor	Site Survey, 700-1000AD
2004 (4 weeks)	Tell El-Amarna	Middle	Egypt	Survey Director	Survey/Mapping, 600BC-800AD
2003 (2 weeks)	NE Delta Survey	Delta	Egypt	Director	Survey, 3000BC-300AD
2003 (10 weeks)	Tell Tebilla	Delta	Egypt	Assistant Director	Settlement, 2500BC-30AD
2002(6 weeks)	El-Markha Plain	W. Sinai	Egypt	Co-Investigator	Mining, 2500BC-1500BC
2001(2 days)	El-Markha Plain	W. Sinai	Egypt	Co-Investigator	Mining, 2500BC-1500BC
2001(8 weeks)	Tell Tebilla	Delta	Egypt	Site Supervisor	Mortuary Area, 600BC-30BC
2000(2 days)	El-Markha Plain	W. Sinai	Egypt	Co-Investigator	Preliminary site assessment

2000(7 weeks)	Tell Tebilla	Delta	Egypt	Site Supervisor	Mortuary Area,600BC-30BC
2000(4 weeks)	Cahel Pech	W. Belize	Belize	Site Volunteer	Cave/Surface, 500BC-1000AD
1999 (4 weeks)	Mendes	Delta	Egypt	Site Supervisor	Mortuary, 2600BC-2300BC
1999(two days)	Tell Tebilla	Delta	Egypt	Epigrapher	Mapping and surface survey
1999 (5 weeks)	Tell Tanninim	E.Coast	Israel	Site Volunteer	Architectural, 50BC-1200AD

R.E.S.C.U.E (**REmote Sensing and Coring of Uncharted Egyptian sites**): (2006+) This is a major international research initiative with the aim of mapping the entirely of Egypt's Delta, and discovering, mapping and recording hundreds of new ancient Egyptian sites (co-directors Dr. G. Mumford and Professor T. Schneider). The project will use satellite images (Landsat, Quickbird, SPOT, IKONOS, Corona and ASTER) to locate new sites, and will utilize a differential GPS, Dutch auger coring, and magnetometer survey to gain detailed surface and subsurface information. This will be used to recreate ancient Egypt's environment, and will help in reconstructing ancient settlement patterns.

Tell El-Amarna: (2004, 2005, 2006,2007) Spring 2004, directed a major survey for new archaeological sites along the west bank of the Nile across Tell El-Amarna, using a number of satellite images and methods of analysis. The survey located and mapped 70 new archaeological sites (ca. 600BC-800AD) using a GPS. Each site was photographed, and evaluated for future excavation, coring and differential GPS mapping, which took place in Spring 2005 at 12 sites, and was continued in Spring 2006.

Northeast Delta Survey: (2003) Directed an extensive survey of the northeast Egyptian Delta, mapping and evaluating over 60 sites (many newly discovered) found in satellite images (Landsat, ASTER, Corona, SPOT). Information from survey results will answer questions regarding settlement patterns ca. 2500BC-200AD, themes seen in global climate change, and archaeological site destruction rates for Egypt as a whole. This is the first study using satellite images to detect new sites in the Delta or Nile Valley, and the methods developed can be used in future projects in many other Middle Eastern countries.

El-Markha Plain: (2000, 2001, 2002, 2004, 2005, 2008) Co-direct major research project in western Sinai (El-Markha Plain), focusing excavation on a well-preserved circular fortress dating to 2500BC, a mining settlement dating to 1500BC, as well as exploration of major mining sites of Sinai (Serabit el-Khadim, Wadi Maghara). Have directed survey of El-Markha Plain, discovering ancient water sources and a major new Early Bronze I site (ca 3000BC) using satellite images, with additional fortresses to the South.

Tell Tebilla: (1999, 2000, 2001, 2003) Tell Tebilla contains remains dating from 2500BC-30AD, with excavations concentrating upon mortuary, occupation, and cultic contexts. I worked in all areas of excavation, with excavation units ranging from a house (600BC), enclosure wall foundation deposit and mastaba tomb to a 14x14m fortress-like structure reused in a mortuary context. I am an assistant Director for this project, helping with project/team organization and budget issues.

Tell Tinnis: (2004) Responsible for excavations on site during season. Work on reconstructing the history of the outer gate construction and destruction, as well as working on a possible fortress of Saladin. Attempted kite aerial photography for aerial reconnaissance of subsurface material.

Mendes: (1999) Was responsible for 10x10m unit as a site supervisor, part of a ca. 2400BC mastaba tomb complex, along with excavating human remains, conducted ceramic analysis and reconstruction.

Cahel Pech, Barton Creek Cave, Actun Tunichil Muknal: (2000) As a field school student, participated in excavating and surveying a variety of caves in the western valleys of Belize, as well as excavating elite administrative structures at Cahel Pech, dating from 500AD-1000BC. Also took part in excavations in a bone pit high on a cave ledge (Barton Creek Cave) and worked in mapping the jungle cave Actun Tunichil Muknal. Analyzed Mayan ceramic assemblages, worked as an osteologist.

Tell Tanninim: (1999) As an assistant site supervisor, helped to clear a large Roman Period Piscina (fish pool), a crusader fortress and related human remains, and assisted with artifact registration.

Teaching Experience: 2006-

Assistant/Associate Professor: Dept. of Anthropology, University of Alabama at Birmingham, Courses taught to-date (2-3 courses per semester)

ANTH 101	Introduction to Anthropology
ANTH 106	Introduction to Archaeology
ANTH 207	Introduction to Egyptian Archaeology
ANTH 262	Mythbusters: Archaeological Hoaxes, Scams, and
	Documentary Disasters
ANTH 285	Mapping Our World
ANTH 329	Ancient Egyptian Culture
ANTH 422	Landscape Archaeology
ANTH 434/634	Observing the Earth from Space (Introductory Remote
	Sensing/GIS)
ANTH 437/637	Real World Remote Sensing (Advanced Remote

Sensing/GIS)

ANTH 451/651 Advanced Archaeological Anthropology ANTH 492 Independent study/directed readings

2005- 2006 Sessional Lecturer: University of Wales-Swansea

Art in the Age of the Pyramids; Ancient Egyptian History

2005-2006 Study Leader: Smithsonian Institution Members Choice tours, Egypt

• Responsible for academic content for three two-week tours to Egypt

Spring 2005 Course Supervisor, Dept. of Archaeology, Cambridge University

Human Impact and the environment: Supervised undergraduates in essays, exam preparation, and course material via group seminars

Course Supervisor, Faculty of Oriental Studies, Cambridge University

Interconnections (Egypt and her neighbors): Supervised undergraduates in essays, exam preparation, and course material via group seminars

Guggenheim Museum, Las Vegas

Teaching Ancient Egypt in the classroom: Designed/taught day-long Egypt seminar to teachers, with "Quest for Immortality" exhibit

Spring 2004 Program Instructor, Supreme Council for Egyptian Antiquities, Cairo

Remote sensing in Egyptian Archaeology: Organized and taught intensive 3 day remote sensing course to Egypt's Supreme Council of Antiquities in Cairo,

Feb. 25th-28th, involved both seminar and lab sessions

Fall 2003: Course Supervisor, Dept. of Archaeology, Cambridge University

World Religions: Supervised undergraduates in essays, exam preparation and course material via group seminars

Media Coverage of Research:

2013 "Space archaeologists unlocks secrets of ancient civilizations," CNN.com

2013 Rome's Lost Empire (BBC1/Discovery)

2012 "Archaeology from space" (talk on ted.com)

2012 TED 2012: For they are jolly good fellows, Jake Wakefield, Feb 28

2011 2012 TED Fellows announced: A look at some of the world's leading thinkers," Bonnie Christian, Nov 1

2011 Egypt's Lost Cities (BBC1), May 30/Egypt: What Lies Beneath (Discovery), Oct 8

2011 Possible pyramids discovered from Space, NPR, All Things Considered

2011 Possible Pyramids, peering beneath Egypt's surface with satellite Images, ABC news

2011 Egyptian pyramids found by infrared satellite images, Frances Cronin, BBC News

2011 "Amid protests and looking, officials work to preseve Egypt's treasures," Biran Vastig, Washington Post

2010 "Google Earth and a New Generation of Archaeologists," Archaeology Magazine online, Heather Pringle, August 27

2010 "Mapping Ancient Civilization, in a matter of days", New York Times, John Noble Wilford, May 10th

2010 "Satellite Imaging Isn't Just a Spy in the Sky Anymore", aol.com, Tom Dunkel, Feb. 7th

2009 "Satellites for Egyptian archaeology," for *Illustrated Science* (top science publication in Norway, Denmark,

Sweden), Josephine Schnohr, June edition

2009 "Sarah Parcak" (Wikipedia)

2008 "Satellites unearthing ancient Egyptian ruins" cnn.com (top news on Dec. 24th)

2008, "The Space Archaeologists," Featured work in Popular Science, Mara Hvestidahl

2008 "Why Ancient Egypt Fell," Discovery Channel, work showcased, interviewed in Egypt, aired April 6th

2008 "Discovering the past, predicting the future" UAB advertisement, Alabama Heritage

2008 "Egyptologist digs into global health issues," UAB School of Arts and Sciences magazine: (cover story)

2008"Discovering new ways to see the world," Birmingham Weekly women's issue March 27th-April 3rd

2007 "NASA Scientists learn to speak new language," December 2007, science nasa gov (front page news on nasa gov)

2007 "From UAB, professor finds ruins in space," Thomas Spencer, 2007 (Birmingham News, Montgomery Advisor, Florida Herald Tribune, eschoolnews.com)

2007 "Eyes in space: satellite remote sensing gives researchers new tools to find answers," Laura Freeman, Birmingham Medical Journal, October 2007

2007 "New research laboratory opens at UAB," FOX News Interview, Sept. 6th

2007 "New lab opening," NPR interview with Rosemary Pennington, July 11th

2007 "Ancient Egyptian city spotted from space," Top news on AOL, MSNBC, Yahoo, Google, LiveScience, June 5th

2007 "Scientist races to save ancient Egypt," Newswise.com, May 25th

2007 "New discoveries in Israel: The Jesus Tomb?" (interview with NBC 13, Alabama)

2006 "Google Earth, Satellite Maps boost armchair archaeology," National Geographic News 11/08

2006 Archaeology News, Norman Hammond, The Times, p. 114

2004 "Archäologie aus dem All Satellitenbilder geben Hinweise auf antike Stätten Vor neun Jahren gab US-Präsident Clinton Spionagebilder frei - eine Fundgrube für die Ägyptologen" Rudiger Heimlich, in the *Kolner Stadt-Anzeiger* and the *Frankfurter Rundschau*, April 13

2004 *Geotimes*, February, Vol. 49 (2), p. 28

2003 "Time and Change," The Economist, Dec.22-Jan 2nd, 114-115.

2003 "Egyptians went with the flow," online at Sciencenow, Dec. 21st, Katie Green http://sciencenow.sciencemag.org/cgi/content/full/2003/1211/2

2003 "Current Issues and Trends at CRE IV," Ancient Egypt Magazine, March/April, Claire Malleson

Professional Presentations:

2013

130/1. "Space Mapping," 2 invited talks for Chinese Academic of Sciences, Oct 28/29, Beijing.

129. "The future of archaeology," EE Just Symposium (invited), Dartmouth College, Oct 5.

128. "Space Archaeology," Geospatial World Forum (Digitial Globe invited Senior Ccientist), Rotterdam, The Netherlands, May 22

127. "Strategic mapping for cultural heritage in UAE," (invited) Ministry of Tourism and Antiquities, Dubai, UAE, May 15.

126. "Looting in Egypt: the view from space, 2011-13," American Research Center in Egypt Annual conference, Cincinnati, Ohio, April 14-16.

2012

125. "Seeing Egypt from Space," TED main stage, TED, Long Beach, Feb 28-March 2

124. "How do you lose a city," TED Fellows talk, TED, Long Beach, Feb 28-March 2

123. "A twist of ancient fate," TEDxYale, New Haven, Feb 4th.

2011

122. "Academic partnering with the DoD and site looting in the Middle East," Saving Cultural Heritage in Crisis Areas, American Academy in Rome, Nov 4-5.

121. "Working with the Media: bridging the gap," International Archaeology film Festival, Lake Constance, Italy, Oct 14-18.

120. "Egypt from Space," College of William and Mary, Sept 15, 2011.

119. "Egypt in a time of Crisis," American Research Center in Egypt Annual conference, April 23-25.

115-118. Archaeological Institute of America lecture series: Stanford University (The End of Egypt's Pyramid Age from Space, March 18), Southern California-Irving (Making the mummies dance from space March 19), Reno/Truckee Community College (The End of Egypt's Pyramid Age from Space, March 21) George Washington University (Making the mummies dance from space March 31).

114. California National Academy of Sciences (The End of Egypt's Pyramid Age from Space, March 17)

2010

113. "How to see the past from space", Memphis University, Sept. 9th

112. "The Potential of satellite archaeology for Egypt", International conference for Space Technology and Geo-information for Sustainable Development, Cairo, Egypt, June 16th

111.(co-presented with G.Mumford), "How to form an academic partnership with the US DoD: the archaeology of the future?" *The World Archaeology Congress and the Association of National Committees of the Blue Shield*, Vienna International Centre, Vienna, Austria, April 6–10.

Conference/Invited lecture

2009

109-110. Introduction to Plenary Talk (invited): "Recognizing space-based methods for archaeological investigations: The future of archaeology," and Panel respondent for Remote sensing and GIS session, American Schools for Oriental Research Conference, New Orleans, Nov. 18th-21st

106-108."Making the Mummies Dance from Space," and "The Collapse of Egypt's Pyramid Age", to be presented to Archaeological Institute of America societies in Walla Walla WA; Iowa City, IA, and Central Missouri, Oct 4th-7th

105. "Pushing the envelope for satellite archaeology in Egypt: Quickbird feature detection, predictive site modeling, and thermal site signatures." International Conference for Remote Sensing in Archaeology, Trichy, India, August 15th-21st

104. "Advanced high resolution techniques for archaeological feature detection in Egypt,"

American Research Center in Egypt annual meeting, Dallas, April 18th-21st

Service/Outreach talks

103."Public health and remote sensing for the 21st century", presented to the Center for Geographic Health Summer Institute, July 16th

101-2. "Cultural resource management in the 21st century," Linn-Henley invited speaker, Altamont School, Birmingham, Alabama, April 5th

Conference/Invited lectures

- 100. "Advanced spatial modeling for Egyptian Archaeology," Landscape Archaeology panel speaker at the American Schools for Oriental Research conference, Nov. 22nd
- 99. "Egyptology in the 21st century," invited lecture at the Museum of Fine Arts, Boston, Nov 1st 98. "Satellites and survey for Egyptian Archaeology," invited lecture at Wheaton College, IL, Oct 21st
- 97. "Saving Ancient Egypt from Space," invited lecture for the Archaeological Institute of America-Huntsville branch, Sep. 17th
- 96. "How to see human health from space, presented to the annual conference of the Alabama Public Health Association, April 2^{nd} , Birmingham, AL
- 95. "Quickbird satellite imagery and subsurface architecture detection in Middle Egypt," Society for American Anthropology annual conference, Vancouver, BC, March 25th-30th
- 94. "Losing our past from Space," Archaeological Institute of America annual conference, Chicago, Jan. 6-8th

Service/Outreach talks

- 93. "Using satellites as a base for community service," invited lecture to UAB Global and Community Leadership honors program
- 92. "Satellite remote sensing in our everyday lives," invited lecture for the Shades Valley Rotary Club, Birmingham, Sept 21st
- 91. "Connecting Egyptian archaeology and the Egyptian government", presented to the President of Misr University, August 10th
- 90. "The LGHO at UAB: new possibilities, new directions," presented to UA system leaders and congressional lobbyists, July 8th
- 89. "Remote sensing and Public Health: the view from UAB," presented to Dr. Musimbe Kanyaro, Director, Packard Foundation Populations, May 8th, Birmingham
- 88. "Seeing past and present worlds from space", Presenting to School of Engineering Board, Overton Club, Vestavia Hills, May 1st
- 87. "Ancient Egypt through satellite imaging," Presented to the Altamont School, Birmingham, April 23rd.
- 86. "Past and present worlds from space at UAB," invited lecture to Birmingham Downtown Rotary, April 6th.
- 85. "Satellites and science at UAB," presented to UAB Administration, Feb. 15th
- 84. "The future of remote sensing at UAB," UA System Board meeting, Birmingham, Feb 8th
- 83. "Satellites and Egyptian Archaeology," UAB New Horizons Program, Birmingham, Feb 7th 2008 New Horizons
- 82. "Physics and archaeology," invited lecture, Dept. Physics, UAB, Jan 9th

Conference/Invited lectures

- 81. "Satellites and ancient settlement patterns," Annual meeting of the American Schools for Oriental Research, Seattle, Nov. 19-22nd
- 80. "Space age archaeology in the age of smart bombs and terrorism: what we can do to save our past," Dept. of Defense Military Readiness Conference, Orlando, Florida, July 29th-August 3rd
- 79. "Egyptian archaeology and Google Earth: Not just another pretty picture," American Research Center in Egypt annual meeting, Toledo, Ohio, April 20-22
- 78. "Anthropology and remote sensing," Visiting Geographic Scientist Program, University of South Alabama, April 6th

Service/Outreach talks

- 77. "Remote sensing and health," School of Public Health pre-med seminar, Nov. 6th
- 76. "Towards outbreak prevention: new avenues in spatial health research," School of Public

2008

2007

Health Environmental Health Sciences lecture series, Nov. 4th

- 75. "Satellite research at UAB," UAB Honors program 1st Thursday lecture series, Nov. 1st
- 74. "Satellites in our world," invited panelist for Marshall Foundation Scholars, Oct 22nd
- 73. "Remote sensing and public health," School of Public Health, UAB, July 3rd
- 72. "Satellite remote sensing at UAB: Hidden wonders of the known world," UAB President's Leadership Forum, May 15th
- 71. "Remote sensing and Health: potential directions," UAB School of Nursing, March 21st
- 70. "UAB: a remote sensing laboratory," UAB School of Public Health remote sensing lab steering committee, Feb. $20^{\rm th}$

2006

Conference/Invited lectures

- 67-69. "Ancient Egyptian culture and archaeology," Invited lecture aboard Thompson "Red Sea Adventure" Cruise, Egypt Dec 15th-25th
- 66. "Satellite remote sensing, survey and coring: an integrated approach," 2nd International Congress for Remote Sensing Archaeology, Rome, Dec. 4th-7th
- 65"Remote sensing in Middle Egypt: problems and priorities," Annual meeting of the American Schools for Oriental Research, Washington, DC, Nov. 15-18th
- 64. "Settlement patterns, geography and politics on Egypt's eastern frontier," "Walls of the Ruler" conference, University of Wales-Swansea, May 23-25
- 63. "Seeing Akhetaten from 270 miles up and 15 feet under: results from the 2005/6

Middle Egypt Survey project seasons at Tell el-Amarna", American Research Center in Egypt annual meeting, New York, April 28-30th

62. "Surveying strategies in the Nile's floodplain," University of Alabama at Birmingham, Mar.12th 57-61. "Surveying in ancient Egypt," "Ancient Egyptian Settlements," "Egypt and

Alexandria," Egypt in the Pyramid Age," "Egypt's golden Empire," Invited lectures for Smithsonian Tour to Egypt, Dec. 4th-16th

Service/Outreach talks

- 56. "Global observation techniques in the social sciences," GIS Introductory course (Dr. Akhlaque Haque), Feb. $6^{\rm th}$
- 54-55. "Remote sensing in the health and social sciences: a UAB perspective," various UAB administrators and UAB's Vice-President for Research, Sept. 25th and Oct. 19th

2005

- 49-53. "Ancient Egyptian Archaeology," "Nubia and Ancient Egypt", "Egypt in the Ptolemaic Period," "Ancient Egyptian history," "Mummification in Ancient Egypt", Invited lectures for Smithsonian Tour to Egypt, Dec. 4th-16th
- 48. "Finding things in strange places: archaeological survey and satellites in Egypt," Egypt Centre lecture series, University of Wales-Swansea, November 16th
- 47. "Surveying strategies in the Nile floodplain," Department of Classics and Ancient History, University of Wales-Swansea, October 25th
- 46. "From the ground up: settlement patterns in the Nile Delta," Manchester Egypt Exploration Society Branch, October 18th
- 45. "Seeing above and below the ground in Middle Egypt," British Egyptology Congress, Sept. 22-24th, Cambridge, UK
- 40-44. "Ancient Egyptian Archaeology," "Nubia and Ancient Egypt", "Egypt in the Ptolemaic Period," "Ancient Egyptian history," "Mummification in Ancient Egypt", Invited lectures for Smithsonian Tour to Egypt, July 5th-18th
- 39. "Towards a new methodology of survey in Egyptology," American Research Center in Egypt annual meeting, April 22-24th, Boston
- 38. "Finding Egypt's lost cities," Guggenheim Museum, Las Vegas. Invited speaker for "Egypt: Quest for Immortality" exhibition, April 14th
- 37. "Satellite Imagery from the Route of Ra's Solar Boat," Museum of Fine Arts, Boston, April 8th

36. "Digging in Egypt," presented to two 6th grade classes at the William S. Cohen Middle School, December 20th

35."Settlement patterns in a Late Roman Period region: satellite remote sensing and survey in Middle Egypt (Spring 2004)," Egyptology graduate student seminar, November 3rd, Cambridge UK 34."Finding new archaeological sites in Egypt using satellite remote sensing: Case studies from

2004

Middle Egypt and the Delta," International Congress for Remote Sensing Archaeology, Beijing, China, October 18-21.

- 33. "Seeing ancient Egypt from above: Satellites and survey in Middle Egypt and the Delta," Egypt Society of Bristol, October 12.
- 32."Using satellite imagery analysis and subsequent ground-truthing for broad-scale survey in Egypt: Results from Sinai, the Delta and Middle Egypt, "International Congress for Egyptology, September 6-14, Grenoble, France.
- 31. "Remote sensing and survey: results from Middle Egypt and the Delta" The American Research Center in Egypt annual conference, Tuscon, Arizona, April 14-16.
- 30."Finding the "lost" sites of Egypt: satellite imagery analysis and site detection," Current Research in Egyptology conference, January 17, Durham, England.

2003

- 29. "Climate change and understanding settlement patterns in Egypt's northeast Delta," American Geophysical Union, Dec. 8-12, San Francisco, CA.
- 28. "Remote Sensing in Egypt: New Discoveries from the Delta," Annual meeting of the American Schools for Oriental Research, Atlanta, GA, November 19-22.
- 27. "Satellite imagery analysis and survey in the northeast Egyptian Delta," Garrod Research Seminar series, Department of Archaeology, Cambridge University, December 4.
- 26."Remote sensing in Egypt," presented to two groups of 100+ math and science students at Bangor High School, Maine, November 19th
- 25. "Remote sensing in Egypt: results from archaeological prospecting in the eastern Delta (summer 2003)," ACACIA, Cologne, Germany, October 2nd-4th.
- 24."New methods for archaeological site detection in Egypt via satellite imagery analysis: Case studies from Sinai and the Delta," Archaeological Prospection, Cracow, Poland, September 14th-18th, 2003.
- 23. "The 'ground' truth: field results from remotely sensed images, El-Markha Plain, summer 2002," American Research Center in Egypt annual conference, Atlanta, GA, April 24-26.
- 22."Satellite imagery analysis in archaeology: New discoveries from Egypt," Annual General Meeting of the Cambridge Archaeological Field Group, Cambridge University, Department of Archaeology, April 2.
- 21. "Applications of remote sensing and satellite imagery interpretation in Egypt: El-Markha Plain, South Sinai, summer 2002," Current Researches in Egyptology Symposium, University College London, January 18-19.

2002

- 20. "Hidden chambers, scorpions and long lost-cities: Adventures in South Sinai, summer 2002," Trinity College Science Society lecture series, November 28.
- 19. "Remote Sensing in Egyptology: Results from the El-Markha Plain survey, 2002" Annual meeting of the American Schools for Oriental Research, Toronto, November 20-23.
- 18."Excavating in Egypt," presented to five of Bangor High School's Ancient History Classes, September 23rd.
- 17. "Combining old and new approaches in the detection, survey, and excavation of Pharaonic and indigenous sites in South Sinai," Panel in Ancient Egypt, World Congress for Middle Eastern Studies, Mainz, Germany, Sept 7-12.
- 16. "The flight of Sinuhe and the hero's journey," American Research Center in Egypt, Johns Hopkins University, April 27.
- 15. "Tell Tebilla and Excavation Strategies in Egypt," presented to three of Kate Sheeler's 7th and 10th grade Latin classes, National Cathedral School, Washington, DC, April 23rd.
- 14. "Concerning new approaches in the archaeological investigation of South Sinai: Remote Sensing and the El-Markha Plain Project," Sixth Annual Graduate Students Symposium, Department of Near and Middle Eastern Studies, University of Toronto, March 22.
- 13. "New Approaches in the archaeology of Egypt: Tell Tebilla and the South Sinai Survey and Excavation projects." (with Gregory Mumford), University of Toronto, March 14.

2001

- 12. "The archaeology of Egypt," Presented to St. John's school, Bangor, Maine September 10th
- 11. "Stratigraphic approaches in the analysis of the Whitney House," Yale University, May 18th.
- 10."Observing Western Sinai from space", American Research Center in Egypt, Providence, RI, April 27
- 9. "An ancient Red Sea "resort": new discoveries from the El-Markha Plain Project, Egypt, "Student Led Archaeology Group, Cambridge University, England, March 6, 2002

2000

8."Tell Tebilla: report from the 2000 season," Archaeological Studies Brown Bag lecture, April 16th

7. "Archaeology in Egypt: Tombs, Terrors and Tourists," Yale Art Gallery, December 2nd.

6."Empire in Canaan and Proto-Dynastic/Old Kingdom Egypt?" American Society for Oriental Research November 15th-18th, Vanderbilt University

5."An Old Kingdom empire with Egypt's neighbors?" Senior Mellon Forum, Yale University, November 7th.

4."A History of Yale Egyptology: Ancient art in the Elm City," Yale Art Gallery, October 20th. 3."Egyptology and Archaeology," Presented to Mrs. Cormier's 4th grade class, Mary Snow School, Bangor, Maine, May 14th.

2. "The Old Kingdom Empire?" American Research Center in Egypt's annual conference: April 27-30th, Berkeley, CA.

1."Bones, Bodies and Banebdjed: Summer 1999 excavations at Mendes in the Egyptian Delta." Near Eastern Languages and Civilizations Graduate Roundtable, Jan. 20th.

Conference /Panel Organization

Fall 2009 Discussant for ASOR "Remote Sensing and GIS" Panel
Fall 2006 UAB Prof. Barry Kemp invited lecture campus event organizer
Spring 2005 Walls of the Ruler conference, UW-Swansea (with G. Mumford)
Fall 2005 Egyptology UK conference (with S.Ashton and H. Strudwick)

Fall 2004 International Congress for Remote Sensing Archaeology, ran panel on "Landscape Archaeology"
Fall 2004 International Congress for Egyptology, ran panel on "Egypt and its eastern and western frontiers"

Spring 1998 Helped organize and run Middle Kingdom Studies conference, Yale University

Museum Experience:

Jan. 2002-August 2005 Curatorial Assistant: Fitzwilliam Museum, Cambridge, Department of Antiquities

• Research of Egyptian collections and planning of exhibition space

Jan. 1999-May 2001 Curatorial Assistant: Yale University Art Gallery, Department of Ancient Art

• Evaluation of potential new pieces for the Egyptian Collection

• Maintenance and updating of database for Egyptian Art

• Research of new acquisitions for permanent display in Museum's Egyptian Gallery

University of Alabama at Birmingham Service:

2011-12 UAB Faculty Affairs Committee

2009- UAB Honors Council

2009- UAB Science and Technology Honors Program Leadership Council Sparkman Center Campus-Wide Global Outreach Committee

2009-12 WBHM Board of Advisors

2008-2007-UAB Ireland Scholar Selection Committee2007-Director, UAB Laboratory for Global Observation

2006-7 UAB School of Social and Behavioral Sciences Decanal Search Committee

Department of Anthropology Linguistic Anthropology Tenure-Track Search Committee

Article/Grant reviewer:

2009- National Geographic, National Science Foundation; European Space Agency

2008- Journal of Field Archaeology; Near Eastern Archaeology; GSA Today; International Journal for

Digital Earth; Cambridge Archaeological Journal, Antiquity

Graduate Students Supervised:

Current

Laura Gast (PhD candidate, Public Health) Reda Esmat (PhD candidate, Engineering)

Graduated:

2010 Steve Padgett-Vasquez, MA 2009 David Gathings, MA 2008 Sarah Hemmings, MPH 2008 Jeff DeGraffenried, PhD 2007 Ami Ross, MA

Related Professional Experience:

1998-Present Advisory Board: Egyptologists Electronic Forum (EEF)

• Advise for the largest Egyptology listserve on Internet, dedicated to conferencing on the culture and civilization of ancient Egypt c. 5000 BCE - 622 CE.

Professional Organizations:

1999- American Research Center in Egypt

2000- Society for the Study of Egyptian Antiquities2000- American Schools for Oriental Research

2001- Egypt Exploration Society

2003- International Society for Archaeological Prospection

2003- American Geophysical Union
 2007- Archaeological Institute of America
 2007- Society for American Archaeology

Additional Information: Computer proficiency: both IBM and Macintosh, ERDAS Imagine, ERMapper, ArcGIS,

ArcView, ENVI, numerous database programs.

Languages: French (fluent), German (read), Egyptian Arabic (intermediate speaker, beginning

reader), Middle Egyptian, some Coptic

Countries Visited: Traveled extensively throughout North America, Central America, Europe, Middle East,

India, and China