

CURRICULUM VITAE

Bülent ARIKAN

February 2020

E-mail: bulent.arikan@gmail.com

<http://web.itu.edu.tr/~bulentarikan/academics.html>

https://www.researchgate.net/profile/Bulent_Arikan

<http://istanbultek.academia.edu/BulentArikan>

I- TITLES, DEGREES RECEIVED AND INSTITUTIONS ATTENDED

December 18, 2017 Associate Professor of Archaeology

(Protohistory and Near Eastern Archaeology)

2010 PhD in Anthropology, School of Human Evolution and Social Change,
Arizona State University 85287–2402, Tempe–AZ, U.S.A.

Title: “Reorganization and Risk: Environmental Change and Tribal Land Use in
Marginal Landscapes of Southern Jordan.”

Committee: Prof. C. Michael Barton (Chair), Prof. Geoffrey A. Clark, Prof. Sander van
der Leeuw.

2000–2010 Doctoral Student, School of Human Evolution and Social Change,
Arizona State University 85287–2402, Tempe–AZ, U.S.A.

1997–2000 MA, Department of Archaeology and History of Art, Bilkent University,
Ankara – TURKEY 06533.

Title: “The Neolithic Period in Western and Northwestern Anatolia and Its Relations
with Southeastern Europe and the Balkans.” (Supervisor: Dr. Barbara Helwing)

1993–1997 BA, *Magna Cum Laude* Department of Archaeology and History of Art,
Bilkent University – TURKEY 06533.

II- AREAS OF SPECIALIZATION

a) Foci of Research:

- The archaeology of the Bronze and Iron Ages in Anatolia and the Levant,
- Divergent paths to social complexity and settlement systems,
- Environmental change –including climate– and human impacts on environment,
- Adaptation, mitigation, and resilience in ancient societies.

b) Methods:

- Geoarchaeology,
- Remote Sensing and spatial analyses,
- Paleoclimate modeling,
- Agent-based and stochastic modeling of past land use and landscape evolution.

c) Anthropological Theories:

- Cultural Ecology,
- Environmental Archaeology,
- Landscape Archaeology,
- Ecological Anthropology.

III- CURRENT POSITION

December 2019 – Director, Applied Research Center for Climate Change, Istanbul Technical University, Sarıyer–Maslak, Istanbul, TURKEY 34469

April 2018 – Associate Professor, Department Ecology and Evolution, Eurasia Institute of Earth Sciences, Istanbul Technical University, Sarıyer–Maslak, Istanbul, TURKEY 34469

September 2013 – April 2018 Assistant Professor, Department Ecology and Evolution, Eurasia Institute of Earth Sciences, Istanbul Technical University, Sarıyer–Maslak, Istanbul, TURKEY 34469

IV- ACADEMIC SERVICE

April 2018 – Chair, Department of Ecology and Evolution, Eurasia Institute of Earth Sciences, Istanbul Technical University, Sarıyer–Maslak, Istanbul, TURKEY 34469

January 2014 – October 2015 Vice Dean, Eurasia Institute of Earth Sciences, Istanbul Technical University, Sarıyer–Maslak, Istanbul, TURKEY 34469

V- POST-DOCTORAL RESEARCH

September 2011– June 2012 Senior Research Fellow at the Research Center for Anatolian Civilizations, Koç University, Istanbul–Turkey

Project Title and Description: *Bronze Age Environmental and Social Dynamics in the Upper Euphrates and Tigris Basins. This project involves the computer-based modeling of changes in socio-economic organization and land use aspects of the Bronze Age (ca. 3,500–1,200 BC) societies in these basins in relation to changes in environmental parameters such as climate and land cover.*

October 2010–September 2011 Postdoctoral Scholar at the Center for Social Dynamics and Complexity and, School of Human Evolution and Social Change, Arizona State University, Tempe-AZ, 85287–2402, U.S.A.

Project Description: Responsible for the statistical analyses of human behavioral and ecological modeling results of land use in Penaguila–Alcoi region of eastern Spain during the Neolithic Period (ca. 8th–7th mill. BC), under the MEDLAND Project (Director: Prof. C. Michael Barton).

VI- PUBLISHED WORK *(single author unless otherwise stated)*

a) Articles in SCI and SSCI Journals:

“Comparative Modeling of Bronze Age Land Use in the Malatya Plain (Turkey).” (co-authors: Francesca Balossi Restelli and Alessia Masi)

Quaternary Science Reviews 136: 122-133 [DOI:0.1016/j.quascirev.2015.12.013] **2016**

“Modeling the Paleoclimate (ca. 6,000-3,200 cal. BP) in Eastern Anatolia: The Method of Macrophysical Climate Model and Comparisons with Proxy Data.” **Journal of Archaeological Science** 57: 158-167 [DOI: 10.1016/j.jas.2015.02.016] **2015**

“Macrophysical Climate Modeling, Economy, and Social Organization in Early Bronze Age Anatolia.” **Journal of Archaeological Science** 43 (C): 38–54. [DOI: 10.1016/j.jas.2013.12.008] **2013**

“Don’t Abhor Your Neighbor for He is a Pastoralist: The GIS-based Modeling of the Past Human–Environment Interactions and Landscape Changes in the Wadi el–Hasa, west–central Jordan.” **Journal of Archaeological Science** 39 (9): 2906–2920. **2012**

b) Articles in Journals with Other Indices:

“Paleoclimate, Geology, Geomorphology, and Middle Holocene Age Systems in the Delice Valley of North-Central Anatolia.” **Journal of Field Archaeology** 43 (8): 570-590 [DOI:10.1080/00934690.2018.1535161]. **2018** (Arts and Humanities Citation Index)

“Arkeoloji, Etmen-Temelli Modeller ve Simülasyonlar (Archaeology, Models, and Agent-based Simulations)” **Colloquium Anatolicum** 16: 1-13. **2017** (Arts and Humanities Citation Index)

c) Articles in Other Journals:

“Cooperation and Competition: The Comparative Assessment of Tribal Dynamics in the Marginal Landscapes of the Wadi el–Hasa, in west–central Jordan in the Early Bronze and Iron ages.” **Archaeological Traces** (peer-reviewed, on-line) **2011**

(<http://www.archaeologicaltraces.org/index.php/2014-01-28-09-56-01/traces-in-time/29-tit-1-2011/35-tit0004>)

d) Book Chapters:

“Crisis in the Highlands: Agent-based Modeling of the Early Bronze Age-I (ca. 4950–4,750 cal. BP) Socio-economic Transformations at Arslantepe (Eastern Anatolia).” In Tim F. Cunningham and Jan Driessen (eds.) *Crisis to Collapse. The Archaeology of Social Breakdown*. Aegis Series 11, Louvain: UCL Press. Pp: 235–250. **2017**

“Water, Risks, and Resilience: Archaeological Perspectives from the Marginal Landscapes of Anatolia.” In Federica Sulas and Innocent Pikirayi (eds.) *Water and Society from Ancient Times to the Present*. London: Routledge Pp: 65–87. **2017**

e) Conference Proceedings:

“Resuloğlu 2017 Yılı Çalışmaları (2016 Archaeological Excavations at Resuloğlu)” in *39. Araştırma Sonuçları Toplantısı, Bursa (39th International Symposium on Archaeology at Bursa)*, Kültür Bakanlığı Yayınları (Ministry of Culture Publications) (with Tayfun Yıldırım and Aslı Ünar, in press) **2017**

“2016 Yılı Delice Vadisi (Çorum) Jeoloji, Arkeoloji ve Tarih Öncesi Madencilik Yüzey Araştırması (Delice-Çorum Survey for Geology, Archaeology, and Prehistoric Mining in 2016)” in *39. Araştırma Sonuçları Toplantısı, Bursa (39th International Symposium on Archaeology at Bursa)*, Kültür Bakanlığı Yayınları (Ministry of Culture Publications) (in press) **2017**

“Holosen Süresince Anadolu’da Makrofiziksel İklim, Stokastik Toprak Kullanım Modellemelerine Örnekler ve Arkeolojik Yerleşme Örgüsüne Yeni Bir Bakış (Case Studies for Macrophysical Climate Modeling, Stochastic Land Use Models in Anatolia Throughout the Holocene and A New Look at the Settlement Patterns)” in *31. Arkeometri Sonuçları Toplantısı, Erzurum (31st International Symposium on Archaeometry at Erzurum)*, Kültür Bakanlığı Yayınları (Ministry of Culture Publications), 131-146. **2016**

VII- TEACHING EXPERIENCE

a) Courses Taught at Istanbul Technical University (2013 –):

Fall 2019

ITB-234E The Rise of Civilizations
(Undergraduate lecture)

YSB-629E Environmental Anthropology
(Graduate seminar)

STR-603E Anatolia as Center and Periphery
(Graduate seminar)

YSB-601E Advanced Topics in Earth System Science
(Graduate seminar)

PHOA-4043 Arkeoloji’de İnsan ve Çevre İlişkisi (Human-Environment Relationship in Archaeology)
(Undergraduate lecture, taught at Istanbul University Department of Protohistory and Near Eastern Archaeology)

PHOA-4045 Suriye-Filistin Arkeolojisi-I: Neolitik ve Kalkolitik Çağlar (The Archaeology of Syria and Palestine-I: The Neolithic and Chalcolithic Periods)

(Undergraduate lecture, taught at Istanbul University Department of Protohistory and Near Eastern Archaeology)

Fall 2018

ITB-233E Anthropology
(Undergraduate lecture)

YSB-623E Human Evolution
(Graduate seminar)

PHOA-4043 Arkeoloji'de İnsan ve Çevre İlişkisi (Human-Environment Relationship in Archaeology)

(Undergraduate lecture, taught at Istanbul University Department of Protohistory and Near Eastern Archaeology)

PHOA-4045 Suriye-Filistin Arkeolojisi-I: Neolitik ve Kalkolitik Çağlar (The Archaeology of Syria and Palestine-I: The Neolithic and Chalcolithic Periods)

(Undergraduate lecture, taught at Istanbul University Department of Protohistory and Near Eastern Archaeology)

Spring 2018

ITB-221E Anatolian Archaeology
(Undergraduate lecture)

YSB 581E Evolution
(Graduate Seminar co-taught with H. Nüzhet Dalfes and A.M. Celal Şengör)

PHOA-3153 Suriye-Filistin Arkeolojisi-II: Tunç Çağları (The Archaeology of Syria and Palestine-II: The Bronze Ages)

(Undergraduate lecture, taught at Istanbul University Department of Protohistory and Near Eastern Archaeology)

Fall 2017

ITB-221E Anatolian Archaeology
(Undergraduate lecture)

ITB-234E The Rise of Civilizations
(Undergraduate lecture)

YSB-623E Human Evolution
(Graduate seminar)

YSB-629E Environmental Anthropology

(Graduate seminar)

PHOA-4043 Arkeoloji’de İnsan ve Çevre İlişkisi (Human-Environment Relationship in Archaeology)

(Undergraduate lecture, taught at Istanbul University Department of Protohistory and Near Eastern Archaeology)

PHOA-4045 Suriye-Filistin Arkeolojisi-I: Neolitik ve Kalkolitik Çağlar (The Archaeology of Syria and Palestine-I: The Neolithic and Chalcolithic Periods)

(Undergraduate lecture, taught at Istanbul University Department of Protohistory and Near Eastern Archaeology)

Spring 2017

ITB-234E The Rise of Civilizations

(Undergraduate lecture)

YSB 581E Evolution

(Graduate Seminar co-taught with H. Nüzhet Dalfes and A.M. Celal Şengör)

Fall 2016

ITB-234 The Rise of Civilizations

(Undergraduate lecture)

Fall 2015

YSB-629 Environmental Anthropology

(Graduate seminar)

JDM-609 Geoarchaeology: Environment, Methods and Landscape Studies.

(Graduate seminar)

Spring 2015

ITB-234 The Rise of Civilizations

(Undergraduate lecture)

Spring 2015

YSB–505 Earth Information Systems

(Graduate lecture)

Fall 2014

YSB –505 Earth Information Systems

(Graduate lecture)

Spring 2014

YSB –505 Earth Information Systems

(Graduate lecture)

Fall 2013

YSB –505 Earth Information Systems

(Graduate lecture)

b) Post–Doctoral Teaching (2011–2012):

Koç University HUMS–111 Human Impacts on Ancient Environments
(Undergraduate lecture, Summer 2012, Summer 2013)

Northwestern University City and Civilization in the Eastern Mediterranean
(Undergraduate lecture, Summer 2012, Summer 2013)

Bahçeşehir University CORE 5773 and CORE 5774 Advanced Technologies in
Documentation: Spatial Analysis and GIS Applications
(Graduate seminar, Fall and Spring 2011–2012),

c) Pre–Doctoral Teaching (1998–2010):

Teaching at Arizona State University (2000–2010)

I was either the instructor or the teaching associate in 200 and 300 level undergraduate courses for ten semesters. The titles of these courses were: *Human Impacts on Ancient Environments*, *The Neolithic Revolution and Its Consequences*, *Buried Cities and Lost Tribes: Our Human Ancestor*.

Teaching at Bilkent University (Ankara–TURKEY, 1998–2000)

I was teaching assistant to introductory undergraduate courses on: *Anatolian Art and Archaeology*, *Introduction to Archaeology*, *World Prehistory*.

d) Teaching interests and Awards:

Courses relevant to archaeology

Introduction to Archaeology	Anatolian Art and Archaeology	The Archaeology of Syria and Palestine
The Neolithic Revolution and Its Consequences	Prehistory of Southwest Asia	The Archaeology of Complex Societies
GIS in Archaeology	Archaeology and Simple Modeling	Statistics in Archaeology
Archaeological Method and Theory	Science in Archaeology	Environmental Archaeology and Field Methods

Interdisciplinary coursework

History of Civilizations	City and Civilization	Human Impacts on Ancient Environments
Human Ecology and Complex Adaptive Systems	Statistics in Social Sciences	Cultural Ecology
GIS and Remote Sensing	Spatial Analysis in Social	The History of Climate

Methods	Sciences	Change and Human Adaptation
---------	----------	-----------------------------

September 2006 “Certificate of Appreciation,” Excellence in Teaching in Archaeology and Social Sciences, Elected by the Honors Disciplinary Faculty and Honors College Students, Barrett Honors College, ASU

VIII- ACADEMIC GRANTS, FELLOWSHIPS, AND SCHOLARSHIPS

a) Professional Research Grants:

May – November 2019 *Holosen’de Batı Anadolu’daki Paleoiklimsel Değişimlerinin Modellenmesi, Vekil Veri ile Kıyaslamalar ve Arkeolojik Yerleşme Sistemlerine Etkileri (Modeling the Paleoclimatic Changes, Comparisons With Proxy Data and Impacts on the Archaeological Settlement Systems in Western Anatolia During the Holocene)*, Istanbul Technical University Scientific Research Support Office, Grant # 40605 (Principal Investigator, International Collaboration Grant, State University of New York at Buffalo, Department of Anthropology).

October 2017 – October 2018 *Çorum Delice Vadisi Arkeoloji, Jeoarkeoloji ve Tarih Öncesi Madencilik Projesi (Çorum-Delice Valley Archaeology, Geoarchaeology, and Prehistoric Mining Project)*, Istanbul Technical University Scientific Research Support Office, Grant # 41991 (Principal Investigator).

January 2016 – July 2019 *From the Holocene to the Anthropocene: A New Look at the Ten-Thousand-Year Long History of Human, Environment, and Climate Relationships from the Perspective of Computational Sciences*, The Scientific and Technological Research Council of Turkey (TÜBİTAK) Grant # 215K130 (Principal Investigator).

June – December 2016 *Çorum Delice Vadisi Yüzey Araştırması Projesi (Çorum-Delice Valley Archaeological Survey Project)*, Istanbul Technical University Scientific Research Support Office, Grant# 39947 (Principal Investigator).

February 2015 – May 2016 *Archaeometric Studies of Ceramic and Vitrified Material Production Technologies at Alalakh During Second Millenium B.C.*, The Scientific and Technological Research Council of Turkey (TÜBİTAK) Grant # 114K766 (Researcher).

April 2014 – April 2016 *New Perspectives in Archaeology: The Socio-ecological Agent-based Modeling of the Early Bronze Age I (3,000–2,750 BC) Arslantepe in Malatya (eastern Anatolia)*, The Scientific and Technological Research Council of Turkey (TÜBİTAK) Grant # 113K826 (Principal Investigator).

b) Post-Doctoral (2011–2012) Fellowships:

2011–2012 Postdoctoral Fellowship, Research Center for Anatolian Civilizations, Koç University, Istanbul–Turkey,

2010–2011 The Center for Social Dynamics and Complexity and, School of Human Evolution and Social Change, Arizona State University, Tempe–AZ, 85287–2402, U.S.A

c) Pre–Doctoral (2000–2010) Scholarships:

2008 & 2009 Dean’s Advanced Scholar Fellowship, College of Liberal Arts and Sciences, ASU.

April 2007 Samuel H. Kress Fellowship, American Center of Oriental Research (Amman–Jordan).

2003 through 2005 Award of GCAT (Graduate College Assistantships) by the Graduate College, Arizona State University.

2001–2004 I worked as research assistant at the Archaeological Research Institute of Arizona State University. During these three academic years, I worked on projects that involved: *preparing the database for the pollen records of Arizona, digitizing satellite images and preparing database for the museum inventory, and preparing the database for publications.*

2000 through 2002 Graduate Academic Scholarship, Arizona State University.

2000 through 2002 Wenner–Gren Foundation for Anthropological Research; Developing Countries Training Fellowship, New York.

IX- LANGUAGES

Turkish (native)

English (near-native)

German (reading)

X- COMPUTER LITERACY

Operating Systems: Mac OS X, UNIX	Database: FileMaker, OpenOffice, PostgreSQL	Statistics: JMP, R
Office: MS Office	GIS and Remote Sensing: GRASS GIS, Quantum GIS, ENVI	Modeling: NetLogo, Macrophysical Climate Modeling, MML (agent–based)

XI- GRADUATE STUDENTS SUPERVISED

Arman Tekin Department Ecology and Evolution, Eurasia Institute of Earth Sciences, Istanbul Technical University (Istanbul, Turkey), MSc student (graduated in June 2017) *Chalcolithic – Early Bronze Age Climate Change and Its Impacts on the Settlement Systems in the Lake District of Southwest Anatolia.*

Neriman Erdem Department Ecology and Evolution, Eurasia Institute of Earth Sciences, Istanbul Technical University (Istanbul, Turkey), PhD student (coursework stage) *Climate Change and Impacts on Food Production Systems in the Konya Plain: Perspectives from the Past, Present, and the Future.*

Bedel Emre Department Ecology and Evolution, Eurasia Institute of Earth Sciences, Istanbul Technical University (Istanbul, Turkey), PhD student (coursework stage) *Sea-level Changes in the Marmara Region, Modeling the Paleoclimate, Comparisons with the Proxy Data, and Assessing the Impacts of Environmental Changes on the Early Holocene Human Communities.*

Kemal Koçaklı Department Ecology and Evolution, Eurasia Institute of Earth Sciences, Istanbul Technical University (Istanbul, Turkey), PhD student (coursework stage) *Archaeology, Geology, and Geomorphology of the Delice Basin Throughout the Holocene.*

İnci Nurgül Özdoğru Department Ecology and Evolution, Eurasia Institute of Earth Sciences, Istanbul Technical University (Istanbul, Turkey), MSc student (coursework stage) *Estimating the Agricultural Production Capacity at Hacılar Büyük Höyük (Burdur), an Early Bronze Age Settlement (ca. 3100–2900 BC) through Archaeological, Geophysical, and Remote Sensing Methods.*

XII- PAPERS AND POSTERS PRESENTED AT PROFESSIONAL MEETINGS

April 12, 2019 “Agro-pastoral Adaptations to Holocene Climatic Change in the Greater Near East” Lightning Round Session (co-organized with Isaac T. Ullah) at **84th Annual Meeting of the Society for American Archaeology** Albuquerque –NM, U.S.A.

May 8, 2018 “Erken ve Orta Holosen Dönemlerinde (kal. G.Ö. 12.000-2600) İç ve Güneybatı Anadolu’daki İklim Değişiklikleri ve Bunların Arkeolojik Yerleşme Sistemlerine Etkisi.” (The Early and Middle Holocene (12,000-2600 cal. BP) Climatic Changes in Central and Southwestern Anatolia and Their Impacts on Archaeological Settlement Systems) Paper presented at the **40th Annual Symposium of Archaeology and Archaeometry**, The Ministry of Culture and Tourism, Çanakkale, Turkey.

April 12, 2018 “Modeling the Changes in the Surface Processes at Arslantepe (Malatya) During the Early Bronze Age-I (ca. 4950-4700 cal. BP): A Coupled Systems Approach in Agent-based Modeling.” Paper presented in **The 83rd Annual Meeting of the Society for American Archaeology**, Washington DC – U.S.A.

November 2, 2017 “Modeling the Changes in the Surface Processes at Arslantepe (Malatya) During the Early Bronze Age-I (ca. 5000-4750 cal. BP)” Paper presented at **2017 International Symposium on Geoarchaeology, Ancient Mining, and Metallurgy**, (organized by Hüseyin Öztürk, Ünsal Yalçın, Cahit Dönmez, and William E. Brooks), Istanbul University Department of Geology, Istanbul.

November 2, 2017 “Delice Valley (Çorum) Archaeological and Geoarchaeological Survey” Paper presented at **2017 International Symposium on Geoarchaeology, Ancient Mining, and Metallurgy**, (organized by Hüseyin Öztürk, Ünsal Yalçın, Cahit Dönmez, and William E. Brooks), Istanbul University Department of Geology, Istanbul.

May 23, 2017 “*2016 Yılı Delice Vadisi (Çorum) Jeoloji, Arkeoloji ve Tarih Öncesi Madencilik Yüzey Araştırması*” (Delice Valley - Çorum Survey for Geology, Archaeology, and Prehistoric Mining in 2016) Paper presented at the **39th Annual Symposium of Archaeology and Archaeometry**, The Ministry of Culture and Tourism, Bursa, Turkey.

May 13, 2017 “The Paleoenvironment and the Settlement Systems of Delice Valley: The Heartland of Hatti” Presented at the Fellows’ Research Seminar on **Space Transformations: Multi-Scalar Approaches to the Past** at Koç University Research Center for Anatolian Civilizations, Istanbul.

May 24, 2016 “*İlk Tunç Çağı-I Evresinde (MÖ 3000–2750) Arslantepe Höyüğü: Sosyo-ekolojik Etmen-temelli Modelleme Uygulamaları, Toprak Kullanımı ve Çevresel Değişimlere İlişkin İlk Sonuçlar.*” (Agent-based Modeling of Socio-ecological Dynamics at Arslantepe During the Early Bronze-I period, 3000-2750 BC) Paper presented at the **38th Annual Symposium of Archaeology and Archaeometry**, The Ministry of Culture and Tourism, Edirne, Turkey.

May 11, 2016 “Simulating the Socioecological Dynamics at Arslantepe during the Early Bronze Age-I Phase (ca. 4950 – 4700 cal. BP): A Coupled Systems Approach in Agent-based Modeling” Paper Presented in the Archaeology-Paleoanthropology Session at **The 7th Quaternary Symposium of Turkey**, Istanbul-Turkey.

April 7, 2016 “Macrophysical Climate Model and Comparisons with the Proxy-Based Paleoclimate Reconstruction in Central Anatolian Plain between 14000 and 7000 cal. BP.” Paper presented in the ‘Calibrating Palaeoclimatology-informed Research in Old World Archaeology: Data, Methods and Theories (organized by Peter Biehl) at **The 81st Annual Meeting of the Society for American Archaeology**, Orlando– FL, U.S.A.

October 29, 2015 “*Crisis in the Highlands: Agent-based Modeling of the Early Bronze Age-I (ca. 5,000–4,750 cal. BP) Socioeconomic Transformations at Arslantepe (Eastern Anatolia).*” Paper presented at the **International Workshop: Crisis to Collapse. The Archaeology of Societal Breakdown** (organized by Jan Driessen and Tim F. Cunningham), The Catholic University of Leuven Institute of Civilizations, Arts and Letters, The Center for the Study of the Ancient World, Louvain-la-Neuve–Belgium.

June 25, 2015 “*Archaeological Perspectives for Climate Change and Human Impacts on Environment.*” Paper presented at the **Workshop on Data-driven Research in the History of Southeast Europe and Turkey** (organized by Dr. Dino Mujadžević), The Centre for Mediterranean Studies at Ruhr University, Bochum–Germany.

June 12, 2015 “*The Mid- and Late Holocene Climate Changes in the Amuq Plain: The Application of the Macrophysical Climate Model.*” Paper presented at the **Workshop for the 15th Anniversary of the Alalakh Excavations** (organized by Aslıhan Yener and Gonca Dardeniz) Hatay Archaeology Museum, Hatay–Turkey.

May 11, 2015 “*Holosen Süresince Anadolu’da Makrofiziksel İklim, Stokastik Toprak Kullanım Modellemelerine Örnekler ve Arkeolojik Yerleşme Örgüsüne Yeni Bir Bakış.*” (Case Studies for Macrophysical Climate Modeling, Stochastic Land Use Models in Anatolia Throughout the Holocene and A New Look at the Settlement Patterns) Paper presented at the **37th Annual Symposium of Archaeology and Archaeometry**, The Ministry of Culture and Tourism, Erzurum, Turkey.

March 25, 2015 “*Connecting the Regions and Cultures Through Crises: The Inter-regional Comparisons of Climate Change and Human Adaptive Responses to Environmental Stress around the Mediterranean.*” Keynote address for the session titled *Abrupt Environmental and Cultural Changes in Southwest Europe around 4.2 ka BP* (organized by Prof. Mara Weinelt and Dr. Christian Schwab), at the **International Workshop on Socio-environmental Dynamics over the Last 12,000 Years: The Creation of Landscapes IV**, at the University of Kiel, Kiel–Germany.

October 14, 2014 “*The Bronze Age Paleoenvironments in the Northern Mesopotamia and the Southern Levant: Comparative Modeling and Human Impacts.*” Paper presented in the session titled *The Levantine Paleoenvironments, Paleoclimates, and Ancient Human Populations* (organized by Claire Rambeau, University of Bern, Switzerland), at The 8th International Symposium on Eastern Mediterranean Geology, Muğla Sıtkı Koçman University, Muğla–Turkey.

September 11, 2014 “*The Application of Macrophysical Climate Model in the Malatya Plain (4000-1200 BC).*” Paper presented in the session titled *Environmental Change: Data, Process, and Integrated Modeling* (co-organized with Peter Biehl, SUNY-Buffalo Department of Anthropology), at **The 20th Annual Meeting of the European Association of Archaeologists**, Istanbul Technical University, Istanbul–Turkey.

April 23, 2014 “*The Application of the Macrophysical Climate Model, Stochastic Modeling of Landscape Evolution and Land Use in the Early Bronze Age at Arslantepe (Malatya–Eastern Anatolia).*” Poster presented at **The International Workshop on the Mediterranean Holocene Climate and Human Societies**, Navarino Environmental Observatory, Messinia–Greece.

May 11, 2012 “*Remaining Afloat in Times of Crisis: Similarities and Disparities Between the Northern Mesopotamian and the Southern Levantine Tribal Societies’ Adaptations to Changing Climate in the Context of Fluid Social Organization.*” Paper presented at the symposium titled **Geographical Boundaries and Cultural Frontiers: Fixed or Fluid Social Identities**, Research Center for Anatolian Civilizations, Koç University, Istanbul–Turkey.

April 25, 2009 “*A New Approach In Site Mapping: GRASS GIS and Vector Re-Positioning.*” Paper presented at **The 74th Annual Meeting of the Society for American Archaeology**, Atlanta– GA, U.S.A.

XIII- PUBLIC LECTURES

April 24, 2018 “Arkeolojik Yerleşme Sistemleri, Paleoiklim ve Arazi Kullanım Modelleri.” (Archaeological Settlement Systems, Paleoclimate and Land –Use Models) **Muğla Sıtkı Koçman University** Department of Archaeology, Muğla.

March 28, 2018 “Arkeoloji Perspektifinden Yer Bilimleri: Jeoarkeoloji.” (Earth Sciences from the Perspective of Archaeology: Geoanthropology) **Istanbul Technical University** Faculty of Mines, Istanbul.

February 15, 2017 “The Agent-Based Modeling of Arslantepe for the Early Bronze Age-I Level VI-B1&2, ca. 3000-2750 BC. Environmental, Social, and Economic Dynamics” **Bilkent University** Department of Archaeology and History of Art, Ankara.

December 28, 2016 “*Arkeolojiye Yeni Bir Bakış: Tarih, Toplum ve Ekoloji Üçgeninde Dinamikler*” (*A New Look at Archaeology: The Dynamics from the Perspective of History, Society, and Ecology*) **Boğaziçi University** Kandilli Observatory, Istanbul.

April 22, 2016 “Adaptive Responses to Climatic and Other Environmental Changes: Agent-based Socioecological Modeling of Arslantepe (Malatya) during the Early Bronze Age - I (ca. 4950-4750 cal. BP)” Presented at the Seminar Series on Ancient DNA and Evolutionary Genetics, Biology Department at the **Middle East Technical University**, Ankara.

November 24, 2014 “*Between a Hard Place and a Rock: Modeling the Bronze Age Climate Change and Human Impacts in the Malatya Plain (Eastern Anatolia).*” Presented at the **American Research Institute in Turkey**, Istanbul.

November 20, 2013 “*Making the Past Come to Life: The Methods of Computational Modeling in Archaeology.*” Presented at the **American Research Institute in Turkey**, Ankara.

October 21, 2013 “*The Best of Both Worlds: The Methods of Computational Modeling in Archaeology.*” Presented at the **American Research Institute in Turkey**, Istanbul.

May 24, 2012 “*Bilinmeyen Tunç Çağını CBS Bilebilir mi? Arkeolojide CBS Uygulamaları & Çevresel Değişimlerin CBS Ortamında Modellenmesi.*” (Can GIS Reveal the Unknowns of the Bronze Age? GIS Applications in Archaeology & GIS-based Modeling of Environmental Changes) Presented in Turkish, at the Department of Prehistory, **Istanbul University**, Istanbul.

May 17, 2012 “*Environmental Changes in the Northern Mesopotamia and the Southern Levant During the Bronze Age (ca. 5,500–3,200 BP). Approaches in Dynamic Modeling of Human–Environment Interactions Using GRASS GIS.*” Presented at the Eurasia Institute of Earth Sciences, **Istanbul Technical University**, Istanbul.

November 14, 2011 “*Technology’s Gift to Archaeology: Spatial Analysis and Computer-based Modeling in Geographical Information Systems.*” Presented at the **American Research Institute in Turkey**, Istanbul.

October 12, 2011 “*Bronze Age Environmental and Social Dynamics in the Upper Euphrates and Tigris Basins.*” Presented at the Research Center for Anatolian Civilizations, **Koç University**, Istanbul.

November 28, 2007 “*The Settlement Patterns of the Wadi el-Hasa in the Bronze and Iron Ages. A Case of Adaptation Through Fluid Socio-political and Economic Organization.*” Presented at the **American Center of Oriental Research**, Amman (Jordan).

XIV- FIELDWORK EXPERIENCE

a) Survey Projects:

June 15 – July 15, 2018 Delice Valley (Çorum) Geoarchaeological and Prehistoric Mining Survey, Director (funded by Istanbul Technical University Grant# 40506)

September 23 – October 15, 2016 Delice Valley (Çorum) Geoarchaeological and Prehistoric Mining Survey, Director (funded by Istanbul Technical University Grant# 39947)

January – March 2016 *Geoarchaeology and spatial analyses*, Arizona State University Bioarchaeology of the Nubia Expedition, Sudan (Director: Prof. Brenda Baker, School of Human Evolution and Social Change).

December 2012 *Surveyor*, Geophysical Survey of the Old Prison Complex, Sinop–Turkey.

October 2007 *Director*, archaeological site survey in the Wadi el-Hasa, Jordan.

June 1998 *Surveyor*, Çataltepe (Elmalı–Antalya) Survey, conducted as a part of the Choma Archaeological Expeditions, (Hacımusalar), Elmalı Antalya.

September 1997 *Surveyor*, in the Büyük Bedesten area, Survey project at the Anastasian Walls (Byzantine) (Long Walls), Thrace, Turkey (Co-Directors Prof. James Crow of Newcastle Upon Tyne and Dr. Alessandra Ricci of Bilkent University, Ankara and University of Rome, Italy).

September 1996 *Surveyor*, at the Anastasian Walls (Byzantine) (Long Walls), Thrace, Turkey (Co-Directors Prof. James Crow of Newcastle Upon Tyne and Dr. Alessandra Ricci of Bilkent University, Ankara and University of Rome, Italy).

b) Excavations:

July 15 – September 1, 2018 Resuloğlu (Çorum) Early Bronze Age settlement excavation, Assistant director, (Director: Prof. Tayfun Yıldırım, Ankara University, Department of Archaeology),

July 9 – September 15, 2017 Resuloğlu (Çorum) Early Bronze Age settlement excavation, Assistant director, (Director: Prof. Tayfun Yıldırım, Ankara University, Department of Archaeology),

July 15 – September 9, 2016 Resuloğlu (Çorum) Early Bronze Age settlement excavation, Assistant director, (Director: Prof. Tayfun Yıldırım, Ankara University, Department of Archaeology),

2010 Bursa Archaeological Excavations and Cultural Heritage Management Project (Director: Asst. Prof. Suna Çağaptay, Bahçeşehir University Faculty of Architecture and Design, Istanbul–Turkey),

1994–2002 *Trench and Area Supervisor*, Choma (multi period mound), (Hacımusalar), Elmalı – Antalya (Director: Assoc. Prof. İlknur Özgen, Bilkent University, Ankara).

XV- OTHER ACTIVITIES

a) Workshops and Meetings Organized:

March 18 – 22, 2019 *Working With Proxy Data: The Workshop on Integrating Paleoenvironmental Proxies and Paleoclimate Models to Reconstruct Paleovegetation in Central and Southwestern Anatolia*. Organizing this international workshop as part of TÜBİTAK sponsored project (215K130) in order to train graduate students and early career academicians paleo-temperature. Joel Guiot (Marseilles University and CEREGE) is leading the section on the paleovegetation reconstruction while the researchers of the Project will be leading other segments of the Workshop.

March 13 – 15, 2019 *Society for Near Eastern Landscape Archaeology (SNELA) the Second International Meeting*. This bi-annual international meeting was co-organized by myself and Andreas Schachner (German Archaeological in integrating multi-proxy based paleoenvironmental reconstructions and reconstructing paleovegetation with the help of various sets of proxy data such as pollen, stable isotope, paleo-precipitation, and Institute

in Istanbul), held at Istanbul Technical University and German Archaeological Institute in Istanbul. There were three invited speakers and a total of 21 participants. Financial support was provided by Istanbul Technical University and German Archaeological Institute in Istanbul.

March 14–16, 2016 *Modeling Socioecological Dynamics: Methods and Case Studies*. Organized and led this workshop as part of TÜBİTAK sponsored project (113K826) to disseminate the methods and the results of the research on Arslantepe–Malatya, Turkey. Foreign and Turkish scholars will attend to present types of data they have and to exchange methods of modeling that are suitable for the types of data available to archaeologists working in Turkey.

September 2–5, 2015 *Climate, Environment and Society in the ancient Near East - New Paleoenvironmental Reconstruction and Climate Model Simulations*. A session co-organized with Pascal Florin and Dominik Fleitmann, University of Reading Department of Archaeology, at **The 21st Annual Meeting of the European Association of Archaeologists**, University of Glasgow, Glasgow–U.K.

September 10–13, 2014 *Environmental Change: Data, Process, and Integrated Modeling*. A session co-organized with Peter Biehl, SUNY-Buffalo Department of Anthropology, at **The 20th Annual Meeting of the European Association of Archaeologists**, Istanbul Technical University, Istanbul–Turkey.

February 3–7, 2014 *Open Source GIS Workshop*. Co-organized and led this workshop with the Institute of Informatics for a group of twenty-five graduate students and academicians from various fields of social and natural sciences, which was hosted at the National Center for High Performance Computing at Istanbul Technical University.

April 4–6, 2012 *GRASS GIS Workshop*. Organized and led this bilingual (Turkish and English) workshop for a group of thirty academicians from various fields of social sciences, which was hosted at the National Center for High Performance Computing at Istanbul Technical University.

b) Data Compilation Projects:

August 2014– November 2015 Compiling excavation database, running spatial analyses on GIS, developing a research program that covers geoarchaeology, paleoenvironmental research, reconstructing the paleolandscape, and modeling the land use during the Middle and Late Bronze ages in the Amuq Plain, Antioch (Turkey) in collaboration with Prof. Aslıhan K. Yener, Department of Archaeology and History of Art, Koç University, Turkey

September 2013 – November 2015 Coordinator of the Middle and Late Bronze Age Volumes of *Turkey's Archaeological Settlements* (Türkiye'nin Arkeolojik Yerleşmeleri – TAY)

XVI- RESEARCH PROJECTS**a) Principle Investigator:**

November 2017 – November 2018 *Çorum Delice Vadisi Arkeoloji, Jeoarkeoloji ve Tarih Öncesi Madencilik Projesi* (Corum Delice Valley Archaeological, Geoarchaeological, and Prehistoric Mining Survey Project). Supported by Istanbul Technical University Scientific Research Commission Grant # 40605

January 2016 – July 2019 *Holosen'den Antroposen'e: Hesaplamalı Bilimler Perspektifinden Orta ve Güneybatı Anadolu'da İnsan, Çevre ve İklim İlişkilerinin On Bin Yıllık Geçmişine Yeni Bir Bakış* (From the Holocene to the Anthropocene: A New Look at the Ten-Thousand-Year Long History of Human, Environment, and Climate Relationships from the Perspective of Computational Sciences). Supported by Türkiye Bilimsel ve Teknolojik Araştırma Kurumu –TÜBİTAK– (The Scientific and Technological Research Council of Turkey) Grant # 215K130

April 2014 – April 2016 *Arkeolojide Yeni Perspektifler: İlk Tunç Çağı I Döneminde Arslantepe'nin (Malatya) Sosyo-Ekolojik Ajan Bazlı Modellenmesi* (The New Perspectives in Archaeology: The Agent Based Socio-Ecological Modeling of Arslantepe (Malatya) during the Early Bronze Age I). Supported by Türkiye Bilimsel ve Teknolojik Araştırma Kurumu –TÜBİTAK– (The Scientific and Technological Research Council of Turkey) Grant # 113K826

b) Researcher:

November 2016 – July 2017 *Collapse or transformation? Dynamics of change and resilience at Arslantepe, Malatya (South-Eastern Turkey) after the 12th century's crisis in the Near East*. Supported by the National Geographic Society Research Grant

February 2015 – May 2016 *Arkeometrik Yöntemler Işığında M.Ö. İkinci Binyılda Antik Alalakh Kenti'nde Seramik ve Vitriye Malların Üretim Teknolojileri* (Archaeometric Studies of Ceramic and Vitrified Material Production Technologies at Alalakh During Second Millenium B.C.) Supported by Türkiye Bilimsel ve Teknolojik Araştırma Kurumu –TÜBİTAK– (The Scientific and Technological Research Council of Turkey) Grant # 114K766

c) Advisor/Consultant:

January 2016 – July 2017 *Collapse or Transformation? Dynamics of Change and Resilience at Arslantepe, Malatya (South-Eastern Turkey) after 12th Century's Crisis in the Near East*, supported by the National Geographic Society Research Grant, in collaboration with the Director Prof. Marcella Frangipane, University of Rome La Sapienza, Italy,

January 2014–August 2015 *GIS-based Paleoenvironmental and Paleolandscape Research in the Osmaniye Plain during the Holocene* in collaboration with the Director Assoc. Prof. Füsün Tülek, Department of Archaeology, Kocaeli University, Turkey,

August 2013– *Aşıklıhöyük (Aksaray) the Pre-Pottery Neolithic Paleoclimate and Stochastic Land Use Modeling Project* in collaboration with the Director Prof. Mihriban Özbaşaran, Department of Prehistory, Istanbul University, Turkey,

May 2013– December 2016 *The Euphrates Project* under the Digital Humanities Initiative at the Hamilton College (NY–U.S.A.), led by Prof. Erol Balkan (Department of Economics), focusing on the history and the future of water–civilization relationships in the Middle East.

XVII- REFERENCES:

- C. Michael Barton
 Professor, School of Human Evolution and Social Change
 Director, Center for Social Dynamics and Complexity
 Arizona State University
 Tempe–AZ, U.S.A. 85287–2402
 +1- (480) 965–6262
Michael.Barton@asu.edu
- Marcella Frangipane
 Professor, Prehistory and Protohistory of the Near East at the
 University of Rome La Sapienza,
 Associate Foreign Member of the National Academy of Sciences
 of USA Corresponding
 Member of the German Archaeological Institute in Berlin
marcella.frangipane@uniroma1.it
- Sander Van Der Leeuw
 Professor
 Co-founder of Complex Adaptive Systems Initiative
 School of Life Sciences
 Matthews hall 105
 Tempe, AZ – U.S.A. 85282–2402
 +1- (480) 965–6214
vanderle@asu.edu