

## Application Details

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### Research and Development Minigrants for 2017-2018: Application Review

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**Application Title:** Reconstructing Classic Maya Political Organization at Quebrada de Oro, Belize

**Application ID:** #000071

**Review Deadline:** Jan 27, 2017 11:59:00 PM

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**Primary Appointment Title:** Lecturer

#### Proposal Summary:

The proposed research seeks to determine the territorial extent associated with the once bustling ancient Maya settlement going by the modern site designation of Quebrada de Oro, located in what is today southern Belize and named after the valley in which it is located. Quebrada de Oro is one of four settlement sites situated in the remote Bladen Branch drainage of the southern Maya Mountains proper, a region that has long concealed its political past. It is the only ancient Maya settlement site in the region that displays archaeological features that can be interpreted as territorial markers. The proposed research for which the PI seeks funding follows up on fieldwork conducted by the PI in 2016, which was funded through an RSCA grant. In the course of completing the objectives of the 2016 fieldwork, the PI uncovered a causeway system that ties a number of structural complexes to the ceremonial center making it one of the most expansive sites in southern Belize. The PI also learned of reports of stelae that have yet to be substantiated. Locating and mapping these causeways and any stelae form the principal objectives of the proposed research. Accomplishing these objectives will shed important new light on how and to what extent ancient Maya communities of the Bladen Branch drainage wielded political power. The proposed fieldwork, planned for a two-week window (May 24-June 8, 2017), will lead to a number of research products and will serve as a research and learning platform for CI students.

#### Comments to the Administrator(s):

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**Marc Alexander Abramiuk, Ph.D.**  
**Registered Professional Archaeologist**

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 Ojai, CA 93023

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**FEDERALSERVICE INFORMATION:**

Level of Active Security Clearance: SECRET

Highest GS Level Attained: GS-13

**WORK AND RESEARCH EXPERIENCE:**

**Cultural Research Solutions for Development, Inc. (CRS4D)** - President and Director [01/01/2014 (as corporation), 10/20/2014 (as non-profit) – Present]

Location: Wilmington, DE

Supervisor: N/A

Hours/Week: 20

Duties: I am president and director of a recently formed international NGO known by its acronym CRS4D. CRS4D offers services conducting sociocultural field research, analysis, and strategizing with the purpose of improving aid provisioning, as well as assisting in identifying and managing cultural heritage programs for developing countries with the goal of building national cohesiveness.

**California State University at Channel Islands** – Lecturer (01/01/2013 – Present)

Location: Camarillo, CA

Supervisor/Chair: Dr. Daniel Lee and Dr. Dennis Downey

Hours/Week: 26

Duties: I have taught several classes for CSU. ANTH 377: Archaeological Theory and Methods is an upper division course for archaeology students covering core principals in theory and archaeological data collection (e.g. surveying and excavation techniques), analysis, and interpretation. ANTH 105: Introduction to Archaeology familiarizes students with the history and methods of archaeological research. ANTH 352: Applied Anthropology examines the practical side of all four major subdisciplines of anthropology and the impact that anthropologists can have on people's lives. ANTH 310: World Prehistory is an upper division course with the purpose of tracing the rise of civilizations throughout Asia, Africa, Europe, and the Americas. ANTH 490: War and Conflict, which is another upper division course which covers conflicts throughout the world and strategies for their resolution with a special focus on insurgencies and counter-insurgency. Both SOC202: Introduction to Research Methods and SOC310: Research Methods in Sociology are courses that acquaint students with data collection and sampling strategies as well

as methods in quantitative and qualitative analysis. In these courses I also supervise students on topic relevant research projects.

**Sociocultural Research Consultant** – Consulting Field Data Analyst and Cultural Advisor for contractors in support of industry and defense

Dates: 05/07/2012 – 01/01/2013

Location: Various (within US and Mexico)

Clients: IDS International (contact: Albert Bossar, 703-310-8042); SciFutures (contact: Ari Popper, 805-921-5555).

Hours/Week: 40

Duties: As a sociocultural research consultant to contractors in industry and in defense, I worked as a sociocultural advisor, analyst, and subject matter expert on the ethnography of Latin America and Central and South Asia. I conducted qualitative and quantitative analysis on field data collected through surveying and interviewing, and reported on findings of the analyses in the form of white papers and presentations to my clients.

**Department of Defense/ Department of the Army (DoD/DA)** – Cultural Research Manager in support of United States Marine Corps (USMC) Regimental Combat Team 1 (RCT-1) and Regimental Combat Team 5 (RCT-5)

Dates: 08/01/2010-05/07/2012

Location: Ft. Leavenworth, KS [08/2010 – 03/2011, 01/2012-05/2012] and Helmand Province, Afghanistan [03/2011 – 01/2012]

Supervisor: MAJ Wilem Wong (917-828-3712)

Hours/Week: 75

Duties: I underwent cultural research managerial training with BAE Systems at Ft. Leavenworth, Kansas. I was then sworn in and deployed to Helmand Province, Afghanistan, where I embedded with the USMC and designed, undertook, as well as supervised the collection and analysis of cultural information relevant to helping the Government of the Islamic Republic of Afghanistan (GIRoA) respond effectively to the needs of its citizens. Among the relevant projects I designed and led were several cultural resource management projects. These projects involved locating, identifying, mapping, and assessing cultural properties in Helmand Province, reporting evidence of looting, proposing programs to protect and restore cultural properties under the auspices of Afghanistan's Ministry of Information and Culture (MoIC), and ensuring that cultural heritage content in report form was made available on the pertinent DoD web servers. The sites that I assessed as having cultural heritage potential included a number of early Islamic shrines, Medieval fortresses, and pre-Islamic sites likely dating to the Kushan period.

**Maya Mountains Ethnobotany and Ecology Project (MMEEP)** – Lead Archaeologist and Co-Principal Investigator (Co-PI)

Dates: 12/01/2005 - 08/01/2010

Location: Belize (Fieldwork); USA (Laboratory work)

Supervisor/PI: Todd Pesek, M.D. (216-523-7353)

Hours/Week: Varied depending on the time of year (~20 hours/week over the course of a year)

Duties: I helped design and supervised a joint applied archaeological and

ethnobotanical project in Belize which aimed to seek a sustainable, culturally relevant way of improving healthcare delivery in the region. I supervised and undertook surveys and excavations of Classic Maya ritual and domestic structures and features in order to locate evidence of ancient medicinal plant usage and cultivation. The information gleaned from this archaeological research and the palaeobotanical identification methods implemented helped to improve scientists' understanding of the longevity of certain medicinal plant traditions in the Maya area and how best to cultivate medicinal plants today using ancient methods.

**University of Nevada Reno** - Adjunct Assistant Professor

Dates: 01/01/2010 - 08/01/2010)

Location: Reno, NV

Supervisor: Dr. Donald Hardesty (775-784-6704)

Hours/Week: 13

Duties: I taught upper division undergraduate and graduate course, ANTH 440D/640D: Archaeology of New World Civilizations, and supervised students on topic relevant research projects. Extrapolating from archaeological and ethnographic data, the purpose of this course was to examine life in complex societies in North and South America prior to the arrival of Europeans.

**Lake Tahoe Community College** - Adjunct Assistant Professor

Dates: 01/01/2010 - 08/01/2010

Location: South Lake Tahoe, CA

Supervisor: Dr. Scott Lucas (530-541-4660)

Hours/Week: 39

Duties: I taught two undergraduate courses: ANT- 101 Introduction to Archaeology and ANT-103 Physical/Biological Anthropology.

The purpose of ANT- 101 Introduction to Archaeology was to introduce students to archaeology and cultural heritage work, as well as to instruct them in theory and methods used in archaeological practice.

The purpose of ANT-103 Physical/Biological Anthropology was to chart the course of our species' evolution, from the first hominids to anatomically modern humans, and to introduce students to genetics, human variation, and osteology. The course also looked at the first cultural products generated by hominids and how these products facilitated human evolution.

**University of Akron** - Adjunct Assistant Professor

Dates: 08/01/2006 - 01/01/2010

Location: Akron, OH

Supervisor: Dr. Michael Shott (330-972-6890)

Hours/Week: 26

Duties: I taught 2-3 sections/semester of the introductory undergraduate course, 3240:100-Introduction to Archaeology. The purpose of this course was to introduce students to archaeology and cultural heritage work, as well as to instruct them in theory and methods used in archaeological practice. The course also primed students for World Prehistory by discussing the rise of the earliest civilizations.

**Case Western Reserve University** - Adjunct Assistant ProfessorDates: 08/01/2006 - 01/01/2010Location: Cleveland, OHSupervisor: Dr. Lawrence Greksa (216-368-6777)Hours/Week: 26

Duties: I taught several upper division undergraduate and graduate courses: ANTH-330/1 Archaeology of Mesoamerica and ANT-330/2 Archaeology of South America instructed students on the prehistory and cultural heritage of Mesoamerica and South America and discussed issues of looting and illicit trafficking of artifacts from those regions. ANTH-329/429 Healing Practices in Prehistory instructed students on healing traditions in Mesoamerica, South America, and in South Asia where evidence for uninterrupted healing practices is well preserved in the archaeological record. ANTH-319 Introduction to Statistical Methods in the Social Sciences instructed students on quantitative research methods and strategies that are essential for designing and conducting social scientific research. USSO-256 Cognitive Archaeology was a course modeled after a book I was writing, a book recently published by MIT Press. The course introduces students to the latest research concerning how the human mind works, how the mind has evolved, and how archaeologists infer past human mind frames from physical cultural remains.

**Cleveland State University** - Adjunct Assistant ProfessorDates: 08/01/2005 - 12/01/2005Location: Cleveland, OHSupervisor: Dr. Robert Mensforth (216-687-5223)Hours/Week: 13

Duties: I taught an undergraduate introductory course, ANT-103 Physical/Biological Anthropology, which introduced students to genetics, human variation, and human evolution from the first hominids to anatomically modern humans. In particular, the course looked at the first cultural products generated by hominids and how these products facilitated human evolution.

**Maya Mountains Archaeological Project (MMAP)** – ResearcherDates: 04/01/1994 - 08/01/2005Location: Belize, Guatemala (Fieldwork); USA, UK (Laboratory work)Supervisor: Dr. Peter Dunham (216-732-8699)Hours/Week: Varied depending on the time of year (~30 hours/week over the course of a year)

Duties: I was a team member and researcher on the MMAP, a project primarily sponsored and funded by the National Geographic Society (NGS). The main thrust of the MMAP was to explore the remote southern Maya Mountains for evidence of ancient Maya occupation and resource exploitation and to conduct salvage operations where the threat of looting was apparent. In the course of this project I helped locate, survey, and draft maps of several previously unrecorded Classic Maya settlement sites in the Maya Mountains. I also helped locate several cave sites and undertook salvage operations at a number of them. The MMAP served as a

platform for conducting most of my research as a university student. (See "EDUCATION" for a description of this research.)

**ASC Group – Cultural Resource Manager and Archaeologist**

Dates: 03/01/2000-09/01/2000

Location: Various (HQ: Columbus, Ohio)

Supervisor: Shaune Skinner (614-310-3540)

Hours/Week: 50

Duties: Working as a contract archaeologist and cultural resource manager, I surveyed, excavated, and participated in preparing assessment reports of prehistoric as well as historic sites throughout the Mid-West and New England (i.e. Ohio, Indiana, Kentucky, West Virginia, and Pennsylvania).

**Royal Ontario Museum (ROM) – Research Assistant**

Dates: 06/01/1998-12/01/1998

Location: Toronto, ON, Canada

Supervisor: Dr. David Pendergast, Dr. Elizabeth Graham (011-44-20-7679-7532)

Hours/Week: 20

Duties: I assisted with the data entry for the Lamanai database so that future archaeologists and cultural heritage researchers can easily access the data they need.

**Cleveland Museum of Natural History (CMNH) – Archaeological Field School Supervisor**

Dates: 08/01/1996-08/01/1997

Location: Cleveland, Ohio

Supervisor: Barbara Barrish

Hours/Week: 35

Duties: I trained and supervised students in the archaeological excavation of a prehistoric Sandusky site in northeastern Ohio for a field school sponsored by the Cleveland Museum of Natural History. I also recorded and catalogued the cultural remains uncovered during the excavation of the site for the museum.

**EDUCATION:****University College London (UCL) (08/01/2000 - 01/01/2005)**

London, United Kingdom

Degree: PhD - Archaeology

Funding: UCL Graduate School Research Scholarship and ORS Award

Dissertation Title: Cognitive Implications of an Economic Approach to Classic Maya Ground Stone Exchange

Description: My dissertation research examined four ancient Maya communities in the Maya Mountains and the proposed effect of intercommunity exchange on behavior and perceptions inferred to have arisen among the ancient inhabitants involved in the exchange system. The ancient intercommunity exchange network was reconstructed through scientifically sourcing ground stone at the four sites using facilities at UCL's Wolfson Archaeological Science Laboratories as well as facilities at University of Houston's Department of Earth and Atmospheric Sciences.

Supervisors: Dr. Elizabeth Graham, Dr. Mark Lake

Examiners: Professor Lord Colin Renfrew, Dr. Stephen Nugent

**York University (08/01/1997 - 12/01/1999)**

Toronto, Canada

Degree: M.A. - Anthropology

Funding: The International Student Scholarship

Thesis Title: Reliability Modeling Development at Ek Xux

Description: My thesis research examined the effects of the environment on Ek Xux, an ancient Maya community in the Maya Mountains. An extensive examination of most of the settlement in the Ek Xux valley was used to argue that environmental constraints were likely responsible for the abandonment of the region.

**York University (08/01/1997 - 12/01/1999)**

Toronto, Canada

Degree: M.A. - Mathematics

Funding: The International Student Scholarship

Thesis Title: Mathematical Modeling and Analysis of Society in Archaeology

Description: My thesis research compiled previously published mathematical models of specific societies in ancient times. These predictive models were then evaluated against what is qualitatively known of the ancient societies.

**Cleveland State University (08/01/1991 - 03/01/1996)**

Cleveland, Ohio

Degree: B.A. - Anthropology

Award: Cum Laude

Research Paper Title: Measuring the Carrying Capacity of Ek Xux

Description: The purpose of this research was to devise a robust measure in the form of a mathematical relation that most accurately reflects a community's carrying capacity. The Classic Maya site of Ek Xux was used to exemplify how this measure can be computed. The fieldwork entailed calculating the volume of the structures associated with the site core and mathematically relating this volume to arable land area.

**Cleveland State University** (08/01/1991 - 03/01/1996)

Cleveland, Ohio

Degree: B.S. - Mathematics

Award: Cum Laude

## **BOOKS AND DOCUMENTARY:**

### *Books:*

**Abramiuk, M. A.** (2016) *Cultural Heritage at Peace and at War*

\*Text is in first draft stage\*

- Motivated by my work in Central America and Asia, this book looks at the crucial cognitive role cultural properties have on people today, particularly in shaping their views toward others and consequently their actions toward others.

**Abramiuk, M. A.** (2012) *The Foundations of Cognitive Archaeology*. Cambridge, MA: The MIT Press.

\*Text is published\*

- This book examines the empirical and logical foundations of cognitive archaeology by relying heavily on what cognitive anthropological research can tell us about the thought processes of people in the past based on cultural remains.

### *Documentary:*

**Abramiuk, M.A.** (2013) *A Monument to a King*

\*Filmed in April 2013\*

- Distributed to the Institute of Archaeology in Belize as well as to Ya'axche Conservation Trust. This 20-minute documentary is about a Classic Maya stela that was recently discovered near the ancient Maya site of Quebrada de Oro in Belize. The documentary discusses the importance of the stela and the threats it faces from looters. The purpose of the film is to raise awareness among locals of the importance of preserving cultural heritage.

## **ARTICLES IN PRINT** (unless otherwise stated):

**Abramiuk, M.A.** (2016) The Empirical Evaluation of the Models of Mind in the Past and Its Implications for Cognitive Archaeology. Submitted to *Cambridge Archaeological Journal* (July 2016).

**Abramiuk, M.A.** and W. Wong (2015). Cultural Heritage Preservation and Its Role for Paving the Way toward Peace. *Small Wars Journal*. (August 7, 2015). Another version of this paper was published in the journal *Inside Homeland Security* (January 2016).

**Abramiuk, M.A.** (2015) "We shouldn't be playing around when it comes to preserving the past." *Ojai Valley News*, Friday, March 6, p. A9.

**Abramiuk, M.A.** (2015) "Cognitive Archaeology." In *International Encyclopaedia of the Social and Behavioral Science*, 2<sup>nd</sup> edition, James D. Wright (ed.), Elsevier, Oxford.

**Abramiuk M.A.**, Dunham P.S., Cummings L.S., Yost C., and T.J. Pesek (2011) "Linking Past and Present: A Preliminary Paleoethnobotanical Study of Maya Nutritional and Medicinal Plant Use and Sustainable Cultivation in the Southern Maya Mountains, Belize." *Ethnobotany Research and Applications*, 9:257-273.

Garagic D., Rhodes B.J., and **Abramiuk M.A.** (2011) "Interactive Spatial Evolutionary Computation Based Predictive Modeling of Rare Plant Species Occurrences." *2011 Third World Congress on Nature and Biologically Inspired Computing (NaBIC)*, 472-475.

Pesek T., **Abramiuk M.A.**, Fini N., Rojas M.O., Collins S., Cal V., Sanchez P., Poveda L., and J. Arnason. (2010) "Q'eqchi' Maya Healer's Traditional Knowledge in Prioritizing Conservation of Medicinal Plants: Culturally Relative Conservation in Sustaining Traditional Holistic Health Promotion." *Biodiversity and Conservation*, 19:1-20.

Pesek T., **Abramiuk M.A.**, Garagic D., Fini N., Meerman J., and V. Cal (2009) "Sustaining Plants and People: Traditional Q'eqchi' Maya Botanical Knowledge and Interactive Spatial Modeling in Prioritizing Conservation of Medicinal Plants for Culturally Relative Holistic Health Promotion." *EcoHealth*, 6(1):79-90.

**Abramiuk M.A.**, Wanyerka P., and T. Pesek. (2009) "The Discovery of a Maya Stela at Quebrada de Oro, Toledo District, Belize." *Antiquity*, 83(319)

Dunham P.S., **Abramiuk M.A.**, Cummings L.S., Yost C., and T. Pesek (2009) "Evidence of Complex Ancient Maya Cultivation Strategies in the Southern Maya Mountains of Belize." *Antiquity*, 83(319).

**Abramiuk, M.A.** (2009) "Appreciating and Embodying the Dynamics of Large-Scale Systems: Some Examples from the Past and Present." *Ecological Psychology*, 21(1):68-95

**Abramiuk M.A.**, and W. Meurer (2006) "A Preliminary Geoarchaeological Examination of Ground Stone Artifacts In and Around the Maya Mountains, Toledo District, Belize." *Latin American Antiquity*, 17(3):335-354.

## **FORMAL REPORTS:**

(\* denotes archaeological and cultural heritage related reports)

**\*Abramiuk, M.A.** (2016) The Quebrada de Oro Mapping and Inventorying Project (QMIP): A Preliminary Research Report of the 2016 Season. [*This report discusses findings related to the Quebrada de Oro causeway system and stela. The report also discusses the identification of recent evidence of looting.*] Preliminary Field Report Prepared for Research and Sponsored Programs (RSP) at California State University Channel Islands (CSUCI).

**\*Abramiuk, M.A.** (2013) Quebrada de Oro Stela Survey: Phase I. [*This report discusses findings related to the Quebrada de Oro site core and an associated stela. The report also discusses the identification of recent evidence of looting.*] Prepared for the Government of Belize, Institute of Archaeology, and Ya'axche Conservation Trust. April 2013.

**Abramiuk, M.A.** (2012) Creating a Store that Understands Its Customers: An Assessment Based on Findings at Lowes-Mexico and a Proposal for Making a Store that "Learns" Customers' Wants and Needs. Contracted by SciFutures in support of Lowes' International Division. October 2012.

**Abramiuk, M.A.** (2012) Kajaki District Survey, Wave 2: Quantitative Analysis and Report. Contracted by IDS International in support of DoD. June 2012; *Unclassified*.

**Abramiuk, M.A.** (2012) Tranche 3 Transition Survey: Qualitative Analysis and Report. Contracted by IDS International in support of DoD. May 2012; *Unclassified*.

**Abramiuk, M.A.** (2012) Intrinsic Motivation for Successful Transition and the Way Forward in Afghanistan. Contracted by IDS International in support of DoD. April 2012; *Unclassified*.

**\*Abramiuk, M.A.** (2011) List of Archaeological Sites Post-Recon. [*This is a list of archaeological sites initially identified through aerial imagery which have been ground truthed by me and assessed to be significant archaeological sites as well as potential cultural heritage sites.*] In support of RCT-5 S-3 Effects, Camp Dwyer, Afghanistan, September 2011; *Unclassified*.

**\*Abramiuk, M.A.** (2011) Anti-Looting and Cultural Heritage Preservation in the Central Helmand River Valley: An Archaeological Reconnaissance of Garmsir and Nawa Districts. [*This is a proposal and plan to locate, identify, and survey Pre-Islamic and Early Islamic archaeological sites in southern Helmand Province, which were at risk of being looted and could potentially be classified as cultural heritage sites. The reasons for doing this were to set the groundwork for protection and restoration, to promote regional solidarity through educating locals of their common heritage, and to spur involvement from GIROA's Ministry of Information and Culture in the cultural affairs of rural southern Afghanistan.*] In support of RCT-5 S-3 Effects, Camp Dwyer, Afghanistan, September 2011; *Unclassified*.

**Abрамиук, М.А.** (2011) Understanding the Economic Mindsets of Agriculturalists in Garmsir District, Phase I of III. In support of RCT-5 S-3 Effects, Camp Dwyer, Afghanistan, September 2011; *Unclassified*.

**\*Abрамиук, М.А.** (2011) Documentation and Assessment of Amir Agha Shrine, July 28, 2011. [*Objective was to document, survey, and assess an Early Islamic Sayid burial shrine, known as Amir Agha Shrine, which held significant importance to the people of Garmsir District. The assessment was that the shrine be restored for the populace, and that it be undertaken under the auspices of the Afghan Government's Ministry of Information and Culture (MoIC).*] In support of RCT-1 S-3 Effects, Camp Dwyer, Afghanistan, July 2011; *Unclassified*.

**\*Abрамиук, М.А.** (2011) Documentation and Assessment of Safaar Shrine, July 23, 2011. [*Objective was to document, survey, and assess an Early Islamic Sayid burial shrine, known as Safaar Shrine, which held significant importance to the people of Garmsir District. The assessment was that the shrine be restored for the populace, and that it be undertaken under the auspices of the Afghan Government's Ministry of Information and Culture (MoIC).*] In support of RCT-1 S-3 Effects, Camp Dwyer, Afghanistan, July 2011; *Unclassified*.

**Abрамиук, М.А.** (2011) Understanding People's Attitudes toward GIROA and Coalition Forces in Nawa-i-Barakzayi District, Phase I of III. In support of RCT-1 S-3 Effects, Camp Dwyer, Afghanistan, July 2011; classified *Secret*.

**Abрамиук, М.А.** (2011) An Analysis of the Factors behind the Varying Success of Afghan Local Police in Southern Marjah and Nawa-i-Barakzayi. In support of RCT-1 S-3 Effects, Camp Dwyer, Afghanistan, July 2011; *Unclassified*.

**Abрамиук, М.А.** (2011) Assessment of the Growth and Sustainability of the Afghan Local Police Force in Southern Marjah District. In support of RCT-1 S-3 Effects, Camp Dwyer, Afghanistan, May 2011; classified *Secret*.

**\*Abрамиук М.А.** (2009) A Cursory Examination of Stone Artifacts from the Lamanai Collections, in "Progress Report of the Lamanai Archaeological Project (LAP): The 2009 Season." [*This report discusses the sourcing results of the stone artifacts of Lamanai. Results indicate a connection with the Maya Mountains, as well as the highlands of Guatemala.*] Prepared for the Government of Belize, Institute of Archaeology.

**\*Pesek T., Abрамиук М.А.,** Garagic D., Fini N., Dunham P., Rojas M., Sanchez P., Poveda L., Meerman J., Cal V., Knight K., and J. Arnason. (2007-2008) "Progress Report of the Maya Mountains Ethnobotany and Ecology Project (MMEEP): The 2007 and 2008 Seasons." [*This report includes a discussion of the archaeological and ethnobotanical findings in 2007 and 2008.*] Prepared for the Government of Belize, Forest Department and Institute of Archaeology.

**\*Pesek T., Abрамиук М.А.,** Fini N., Cal M., Cal V., Arnason J., Collins S., Poveda L., Sanchez P., Rojas M., Minty C., Mai H., and M. Windsor. (2006) "Progress Report

of the Maya Mountains Ethnobotany and Ecology Project (MMEEP): The 2006 Season." [This report includes a discussion of the archaeological and ethnobotanical findings in 2006.] Prepared for the Government of Belize, Forest Department and Institute of Archaeology.

**\*Abramiuk, M.A.** (1996) The 1996 Reconnaissance of the Snake Creek Valley, Belize. [This report discusses the results of the first archaeological survey conducted in Snake Creek Valley. Several key mountain (cave) shrines were located and the associated artifacts documented before salvaging. Artifacts were salvaged rather than left to remain in situ due to increased looting in the valley and the fear that the artifacts would be taken.] Field report submitted to the director of the Maya Mountains Archaeological Project (Dr. Peter Dunham), Cleveland State University, Cleveland, Ohio.

**\*Abramiuk, M.A.** (1995) The 1995 Reconnaissance of the Cockscomb Basin and Adjacent Sale Si Puede Valley, Belize. [This report discusses the events leading up to the re-discovery of the Pearce Ruins since they were last examined by Thomas A. Joyce over 60 years ago.] Field report submitted to the director of the Maya Mountains Archaeological Project (Dr. Peter Dunham), Cleveland State University, Cleveland, Ohio.

### **PRESENTATIONS, FORMAL BRIEFINGS, AND CONFERENCE ORGANIZATION:**

(\* denotes archaeological and cultural heritage related presenting and organizing)

\* Protecting the Cultural Resources of Ojai is Paramount. Ojai City Hall Meeting [Ojai, California; March 2015]

\* Reflections on the Intersection of Archaeology and Cognitive Science [Cotsen Institute of Archaeology, University of California Los Angeles; November 2012]

The Sociocultural Research Team Capabilities Brief [Introductory Briefing for the RCT-5 Commander and his Staff; Camp Dwyer, Afghanistan; August 2011; *Unclassified*]

\* Preserving Cultural Properties in Helmand Province, Afghanistan, and Its Social Impact [RCT-5 S-3 Effects, Stability and Operations Meeting; Camp Dwyer, Afghanistan; August 2011; *Unclassified*]

Encouraging Productive Village Leadership in Nawa-i-Barakzayi District [RCT-1 S-3 Effects, Stability and Operations Meeting; Camp Dwyer, Afghanistan; July 2011; classified *Secret*]

An Evaluation of the Growth and Sustainability of the Local Police Force in Southern Marjah District [RCT-1 S-3 Effects, Stability and Operations Meeting; Camp Dwyer, Afghanistan; June 2011; classified *Secret*]

- \* Uncovering the Prehistory of the Maya Mountains of Belize: Archaeology and Its Role in the Maya Mountains Ethnobotany and Ecology Project (MMEEP) [Department of Biological, Geological, and Environmental Sciences, Cleveland State University; 2008]
- \* Regional Societal Development and Inter-Community Dynamics in the Maya Mountains, Toledo District, Belize [K'inah Winik Maya Conference; Cleveland, Ohio; September 2005]
- \* A Statistical Analysis of Mano and Metate Economics in the Bladen Region of the Maya Mountains, Toledo District, Belize [Society for American Archaeology (SAA) Meeting; Salt Lake City, Utah; April 2005]
- \* Inter-Community Interaction as an External Memory Storage Device [Theoretical Archaeology Group (TAG) Meeting; Glasgow, Scotland; December 2004]
- \* Classic Maya Ground Stone Exchange In and Around the Maya Mountains [Society for American Archaeology (SAA) Meeting; Milwaukee, Wisconsin; March 2003]
- \* Organizing committee for the 7th European Maya Conference; London, England; November 2002
- \* Classic Maya Ground Stone Exchange [Society for American Archaeology (SAA) Meeting; Denver, Colorado; March 2002]
- \* The Ancient Maya and Exchange [Department of Geosciences, University of Houston; February 2002]
- \* Neural Dynamics: An Application to Classic Maya Ground Stone Exchange [Institute of Archaeology, First Year Presentation, University College London; 2001]
- \* An Analysis of Some Simple Mathematical Models and Their Applications to Archaeology [Department of Mathematics and Statistics, York University; 1999]
- \* The Mathematical Modeling of Complex Social Phenomena and Its Application to Archaeology [Department of Mathematics and Statistics, York University; 1999]

**RESOURCE DEVELOPMENT:**

*Research, Scholarship, and Creativity Activity (RSCA) Grant through California State University Channel Islands (2016)*

Startup funds for developing the archaeological component of the MMEEP (2006-8).  
Granted by Dr. Todd Pesek (PI of MMEEP) through Cleveland State University and Naturaleza Foundation

*Conference Costs Fund from the Institute of Archaeology to give paper at SAA Meeting (2003)*

*Overseas Research Students (ORS) Award from the British Council (2000-03)*

*Central Research Fund from University of London (2002)*

*Fieldwork Costs Fund from the Institute of Archaeology and the UCL Graduate School to conduct Ph.D. fieldwork in Belize (2001)*

*Research Fund from York University to do M.A. fieldwork in Belize (1998)*

*Full grant from Sigma Xi, the Scientific Research Society (1994)*

*Full grant from Explorer's Club (1994)*

**LANGUAGE SKILLS:**

Ukrainian – speak, read and write with advanced competence

Russian – speak, read, and write with intermediate competence

Spanish – speak, read, and write with intermediate competence

Italian - speak, read, and write with beginning competence

Farsi (dialect spoken in Iran) – speak, read and write with beginning competence

Pashto – speak, read, and write with beginning competence

**COMPUTER SKILLS:**

Basic Programs: MS Word, Excel, PowerPoint, Outlook.

General Programming Abilities: C++, R.

Statistical Packages: SPSS, SAS, S-Plus.

Mathematical Modeling Packages: MATLAB, Maple.

Geo-Spatial and Link Analysis Packages: Palantir, Analyst's Notebook, Anthropac, Map-HT and related ArcGIS, and TIGR.

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**Registered Professional Archaeologist**

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**FEDERALSERVICE INFORMATION:**

Level of Active Security Clearance: SECRET

Highest GS Level Attained: GS-13

**WORK AND RESEARCH EXPERIENCE:**

**Cultural Research Solutions for Development, Inc. (CRS4D)** - President and Director [01/01/2014 (as corporation), 10/20/2014 (as non-profit) – Present]

Location: Wilmington, DE

Supervisor: N/A

Hours/Week: 20

Duties: I am president and director of a recently formed international NGO known by its acronym CRS4D. CRS4D offers services conducting sociocultural field research, analysis, and strategizing with the purpose of improving aid provisioning, as well as assisting in identifying and managing cultural heritage programs for developing countries with the goal of building national cohesiveness.

**California State University at Channel Islands** – Lecturer (01/01/2013 – Present)

Location: Camarillo, CA

Supervisor/Chair: Dr. Daniel Lee and Dr. Dennis Downey

Hours/Week: 26

Duties: I have taught several classes for CSU. ANTH 377: Archaeological Theory and Methods is an upper division course for archaeology students covering core principals in theory and archaeological data collection (e.g. surveying and excavation techniques), analysis, and interpretation. ANTH 105: Introduction to Archaeology familiarizes students with the history and methods of archaeological research. ANTH 352: Applied Anthropology examines the practical side of all four major subdisciplines of anthropology and the impact that anthropologists can have on people's lives. ANTH 310: World Prehistory is an upper division course with the purpose of tracing the rise of civilizations throughout Asia, Africa, Europe, and the Americas. ANTH 490: War and Conflict, which is another upper division course which covers conflicts throughout the world and strategies for their resolution with a special focus on insurgencies and counter-insurgency. Both SOC202: Introduction to Research Methods and SOC310: Research Methods in Sociology are courses that acquaint students with data collection and sampling strategies as well

as methods in quantitative and qualitative analysis. In these courses I also supervise students on topic relevant research projects.

**Sociocultural Research Consultant** – Consulting Field Data Analyst and Cultural Advisor for contractors in support of industry and defense

Dates: 05/07/2012 – 01/01/2013

Location: Various (within US and Mexico)

Clients: IDS International (contact: Albert Bossar, 703-310-8042); SciFutures (contact: Ari Popper, 805-921-5555).

Hours/Week: 40

Duties: As a sociocultural research consultant to contractors in industry and in defense, I worked as a sociocultural advisor, analyst, and subject matter expert on the ethnography of Latin America and Central and South Asia. I conducted qualitative and quantitative analysis on field data collected through surveying and interviewing, and reported on findings of the analyses in the form of white papers and presentations to my clients.

**Department of Defense/ Department of the Army (DoD/DA)** – Cultural Research Manager in support of United States Marine Corps (USMC) Regimental Combat Team 1 (RCT-1) and Regimental Combat Team 5 (RCT-5)

Dates: 08/01/2010-05/07/2012

Location: Ft. Leavenworth, KS [08/2010 – 03/2011, 01/2012-05/2012] and Helmand Province, Afghanistan [03/2011 – 01/2012]

Supervisor: MAJ Wilem Wong (917-828-3712)

Hours/Week: 75

Duties: I underwent cultural research managerial training with BAE Systems at Ft. Leavenworth, Kansas. I was then sworn in and deployed to Helmand Province, Afghanistan, where I embedded with the USMC and designed, undertook, as well as supervised the collection and analysis of cultural information relevant to helping the Government of the Islamic Republic of Afghanistan (GIRoA) respond effectively to the needs of its citizens. Among the relevant projects I designed and led were several cultural resource management projects. These projects involved locating, identifying, mapping, and assessing cultural properties in Helmand Province, reporting evidence of looting, proposing programs to protect and restore cultural properties under the auspices of Afghanistan's Ministry of Information and Culture (MoIC), and ensuring that cultural heritage content in report form was made available on the pertinent DoD web servers. The sites that I assessed as having cultural heritage potential included a number of early Islamic shrines, Medieval fortresses, and pre-Islamic sites likely dating to the Kushan period.

**Maya Mountains Ethnobotany and Ecology Project (MMEEP)** – Lead Archaeologist and Co-Principal Investigator (Co-PI)

Dates: 12/01/2005 - 08/01/2010

Location: Belize (Fieldwork); USA (Laboratory work)

Supervisor/PI: Todd Pesek, M.D. (216-523-7353)

Hours/Week: Varied depending on the time of year (~20 hours/week over the course of a year)

Duties: I helped design and supervised a joint applied archaeological and

ethnobotanical project in Belize which aimed to seek a sustainable, culturally relevant way of improving healthcare delivery in the region. I supervised and undertook surveys and excavations of Classic Maya ritual and domestic structures and features in order to locate evidence of ancient medicinal plant usage and cultivation. The information gleaned from this archaeological research and the palaeobotanical identification methods implemented helped to improve scientists' understanding of the longevity of certain medicinal plant traditions in the Maya area and how best to cultivate medicinal plants today using ancient methods.

**University of Nevada Reno** - Adjunct Assistant Professor

Dates: 01/01/2010 - 08/01/2010)

Location: Reno, NV

Supervisor: Dr. Donald Hardesty (775-784-6704)

Hours/Week: 13

Duties: I taught upper division undergraduate and graduate course, ANTH 440D/640D: Archaeology of New World Civilizations, and supervised students on topic relevant research projects. Extrapolating from archaeological and ethnographic data, the purpose of this course was to examine life in complex societies in North and South America prior to the arrival of Europeans.

**Lake Tahoe Community College** - Adjunct Assistant Professor

Dates: 01/01/2010 - 08/01/2010

Location: South Lake Tahoe, CA

Supervisor: Dr. Scott Lucas (530-541-4660)

Hours/Week: 39

Duties: I taught two undergraduate courses: ANT- 101 Introduction to Archaeology and ANT-103 Physical/Biological Anthropology.

The purpose of ANT- 101 Introduction to Archaeology was to introduce students to archaeology and cultural heritage work, as well as to instruct them in theory and methods used in archaeological practice.

The purpose of ANT-103 Physical/Biological Anthropology was to chart the course of our species' evolution, from the first hominids to anatomically modern humans, and to introduce students to genetics, human variation, and osteology. The course also looked at the first cultural products generated by hominids and how these products facilitated human evolution.

**University of Akron** - Adjunct Assistant Professor

Dates: 08/01/2006 - 01/01/2010

Location: Akron, OH

Supervisor: Dr. Michael Shott (330-972-6890)

Hours/Week: 26

Duties: I taught 2-3 sections/semester of the introductory undergraduate course, 3240:100-Introduction to Archaeology. The purpose of this course was to introduce students to archaeology and cultural heritage work, as well as to instruct them in theory and methods used in archaeological practice. The course also primed students for World Prehistory by discussing the rise of the earliest civilizations.

**Case Western Reserve University** - Adjunct Assistant ProfessorDates: 08/01/2006 - 01/01/2010Location: Cleveland, OHSupervisor: Dr. Lawrence Greksa (216-368-6777)Hours/Week: 26

Duties: I taught several upper division undergraduate and graduate courses: ANTH-330/1 Archaeology of Mesoamerica and ANT-330/2 Archaeology of South America instructed students on the prehistory and cultural heritage of Mesoamerica and South America and discussed issues of looting and illicit trafficking of artifacts from those regions. ANTH-329/429 Healing Practices in Prehistory instructed students on healing traditions in Mesoamerica, South America, and in South Asia where evidence for uninterrupted healing practices is well preserved in the archaeological record. ANTH-319 Introduction to Statistical Methods in the Social Sciences instructed students on quantitative research methods and strategies that are essential for designing and conducting social scientific research. USSO-256 Cognitive Archaeology was a course modeled after a book I was writing, a book recently published by MIT Press. The course introduces students to the latest research concerning how the human mind works, how the mind has evolved, and how archaeologists infer past human mind frames from physical cultural remains.

**Cleveland State University** - Adjunct Assistant ProfessorDates: 08/01/2005 - 12/01/2005Location: Cleveland, OHSupervisor: Dr. Robert Mensforth (216-687-5223)Hours/Week: 13

Duties: I taught an undergraduate introductory course, ANT-103 Physical/Biological Anthropology, which introduced students to genetics, human variation, and human evolution from the first hominids to anatomically modern humans. In particular, the course looked at the first cultural products generated by hominids and how these products facilitated human evolution.

**Maya Mountains Archaeological Project (MMAP)** – ResearcherDates: 04/01/1994 - 08/01/2005Location: Belize, Guatemala (Fieldwork); USA, UK (Laboratory work)Supervisor: Dr. Peter Dunham (216-732-8699)Hours/Week: Varied depending on the time of year (~30 hours/week over the course of a year)

Duties: I was a team member and researcher on the MMAP, a project primarily sponsored and funded by the National Geographic Society (NGS). The main thrust of the MMAP was to explore the remote southern Maya Mountains for evidence of ancient Maya occupation and resource exploitation and to conduct salvage operations where the threat of looting was apparent. In the course of this project I helped locate, survey, and draft maps of several previously unrecorded Classic Maya settlement sites in the Maya Mountains. I also helped locate several cave sites and undertook salvage operations at a number of them. The MMAP served as a

platform for conducting most of my research as a university student. (See "EDUCATION" for a description of this research.)

**ASC Group – Cultural Resource Manager and Archaeologist**

Dates: 03/01/2000-09/01/2000

Location: Various (HQ: Columbus, Ohio)

Supervisor: Shaune Skinner (614-310-3540)

Hours/Week: 50

Duties: Working as a contract archaeologist and cultural resource manager, I surveyed, excavated, and participated in preparing assessment reports of prehistoric as well as historic sites throughout the Mid-West and New England (i.e. Ohio, Indiana, Kentucky, West Virginia, and Pennsylvania).

**Royal Ontario Museum (ROM) – Research Assistant**

Dates: 06/01/1998-12/01/1998

Location: Toronto, ON, Canada

Supervisor: Dr. David Pendergast, Dr. Elizabeth Graham (011-44-20-7679-7532)

Hours/Week: 20

Duties: I assisted with the data entry for the Lamanai database so that future archaeologists and cultural heritage researchers can easily access the data they need.

**Cleveland Museum of Natural History (CMNH) – Archaeological Field School Supervisor**

Dates: 08/01/1996-08/01/1997

Location: Cleveland, Ohio

Supervisor: Barbara Barrish

Hours/Week: 35

Duties: I trained and supervised students in the archaeological excavation of a prehistoric Sandusky site in northeastern Ohio for a field school sponsored by the Cleveland Museum of Natural History. I also recorded and catalogued the cultural remains uncovered during the excavation of the site for the museum.

**EDUCATION:****University College London (UCL)** (08/01/2000 - 01/01/2005)

London, United Kingdom

Degree: PhD - ArchaeologyFunding: UCL Graduate School Research Scholarship and ORS AwardDissertation Title: Cognitive Implications of an Economic Approach to Classic Maya Ground Stone ExchangeDescription: My dissertation research examined four ancient Maya communities in the Maya Mountains and the proposed effect of intercommunity exchange on behavior and perceptions inferred to have arisen among the ancient inhabitants involved in the exchange system. The ancient intercommunity exchange network was reconstructed through scientifically sourcing ground stone at the four sites using facilities at UCL's Wolfson Archaeological Science Laboratories as well as facilities at University of Houston's Department of Earth and Atmospheric Sciences.Supervisors: Dr. Elizabeth Graham, Dr. Mark LakeExaminers: Professor Lord Colin Renfrew, Dr. Stephen Nugent**York University** (08/01/1997 - 12/01/1999)

Toronto, Canada

Degree: M.A. - AnthropologyFunding: The International Student ScholarshipThesis Title: Reliability Modeling Development at Ek XuxDescription: My thesis research examined the effects of the environment on Ek Xux, an ancient Maya community in the Maya Mountains. An extensive examination of most of the settlement in the Ek Xux valley was used to argue that environmental constraints were likely responsible for the abandonment of the region.**York University** (08/01/1997 - 12/01/1999)

Toronto, Canada

Degree: M.A. - MathematicsFunding: The International Student ScholarshipThesis Title: Mathematical Modeling and Analysis of Society in ArchaeologyDescription: My thesis research compiled previously published mathematical models of specific societies in ancient times. These predictive models were then evaluated against what is qualitatively known of the ancient societies.**Cleveland State University** (08/01/1991 - 03/01/1996)

Cleveland, Ohio

Degree: B.A. - AnthropologyAward: Cum LaudeResearch Paper Title: Measuring the Carrying Capacity of Ek XuxDescription: The purpose of this research was to devise a robust measure in the form of a mathematical relation that most accurately reflects a community's carrying capacity. The Classic Maya site of Ek Xux was used to exemplify how this measure can be computed. The fieldwork entailed calculating the volume of the structures associated with the site core and mathematically relating this volume to arable land area.

**Cleveland State University** (08/01/1991 - 03/01/1996)

Cleveland, Ohio

Degree: B.S. - Mathematics

Award: Cum Laude

## **BOOKS AND DOCUMENTARY:**

### *Books:*

**Abramiuk, M. A.** (2016) *Cultural Heritage at Peace and at War*

\*Text is in first draft stage\*

- Motivated by my work in Central America and Asia, this book looks at the crucial cognitive role cultural properties have on people today, particularly in shaping their views toward others and consequently their actions toward others.

**Abramiuk, M. A.** (2012) *The Foundations of Cognitive Archaeology*. Cambridge, MA: The MIT Press.

\*Text is published\*

- This book examines the empirical and logical foundations of cognitive archaeology by relying heavily on what cognitive anthropological research can tell us about the thought processes of people in the past based on cultural remains.

### *Documentary:*

**Abramiuk, M.A.** (2013) *A Monument to a King*

\*Filmed in April 2013\*

- Distributed to the Institute of Archaeology in Belize as well as to Ya'axche Conservation Trust. This 20-minute documentary is about a Classic Maya stela that was recently discovered near the ancient Maya site of Quebrada de Oro in Belize. The documentary discusses the importance of the stela and the threats it faces from looters. The purpose of the film is to raise awareness among locals of the importance of preserving cultural heritage.

## **ARTICLES IN PRINT** (unless otherwise stated):

**Abramiuk, M.A.** (2016) The Empirical Evaluation of the Models of Mind in the Past and Its Implications for Cognitive Archaeology. Submitted to *Cambridge Archaeological Journal* (July 2016).

**Abramiuk, M.A.** and W. Wong (2015). Cultural Heritage Preservation and Its Role for Paving the Way toward Peace. *Small Wars Journal*. (August 7, 2015). Another version of this paper was published in the journal *Inside Homeland Security* (January 2016).

**Abramiuk, M.A.** (2015) "We shouldn't be playing around when it comes to preserving the past." *Ojai Valley News*, Friday, March 6, p. A9.

**Abramiuk, M.A.** (2015) "Cognitive Archaeology." In *International Encyclopaedia of the Social and Behavioral Science*, 2<sup>nd</sup> edition, James D. Wright (ed.), Elsevier, Oxford.

**Abramiuk M.A.**, Dunham P.S., Cummings L.S., Yost C., and T.J. Pesek (2011) "Linking Past and Present: A Preliminary Paleoethnobotanical Study of Maya Nutritional and Medicinal Plant Use and Sustainable Cultivation in the Southern Maya Mountains, Belize." *Ethnobotany Research and Applications*, 9:257-273.

Garagic D., Rhodes B.J., and **Abramiuk M.A.** (2011) "Interactive Spatial Evolutionary Computation Based Predictive Modeling of Rare Plant Species Occurrences." *2011 Third World Congress on Nature and Biologically Inspired Computing (NaBIC)*, 472-475.

Pesek T., **Abramiuk M.A.**, Fini N., Rojas M.O., Collins S., Cal V., Sanchez P., Poveda L., and J. Arnason. (2010) "Q'eqchi' Maya Healer's Traditional Knowledge in Prioritizing Conservation of Medicinal Plants: Culturally Relative Conservation in Sustaining Traditional Holistic Health Promotion." *Biodiversity and Conservation*, 19:1-20.

Pesek T., **Abramiuk M.A.**, Garagic D., Fini N., Meerman J., and V. Cal (2009) "Sustaining Plants and People: Traditional Q'eqchi' Maya Botanical Knowledge and Interactive Spatial Modeling in Prioritizing Conservation of Medicinal Plants for Culturally Relative Holistic Health Promotion." *EcoHealth*, 6(1):79-90.

**Abramiuk M.A.**, Wanyerka P., and T. Pesek. (2009) "The Discovery of a Maya Stela at Quebrada de Oro, Toledo District, Belize." *Antiquity*, 83(319)

Dunham P.S., **Abramiuk M.A.**, Cummings L.S., Yost C., and T. Pesek (2009) "Evidence of Complex Ancient Maya Cultivation Strategies in the Southern Maya Mountains of Belize." *Antiquity*, 83(319).

**Abramiuk, M.A.** (2009) "Appreciating and Embodying the Dynamics of Large-Scale Systems: Some Examples from the Past and Present." *Ecological Psychology*, 21(1):68-95

**Abramiuk M.A.**, and W. Meurer (2006) "A Preliminary Geoarchaeological Examination of Ground Stone Artifacts In and Around the Maya Mountains, Toledo District, Belize." *Latin American Antiquity*, 17(3):335-354.

## **FORMAL REPORTS:**

(\* denotes archaeological and cultural heritage related reports)

**\*Abramiuk, M.A.** (2016) The Quebrada de Oro Mapping and Inventorying Project (QMIP): A Preliminary Research Report of the 2016 Season. [*This report discusses findings related to the Quebrada de Oro causeway system and stela. The report also discusses the identification of recent evidence of looting.*] Preliminary Field Report Prepared for Research and Sponsored Programs (RSP) at California State University Channel Islands (CSUCI).

**\*Abramiuk, M.A.** (2013) Quebrada de Oro Stela Survey: Phase I. [*This report discusses findings related to the Quebrada de Oro site core and an associated stela. The report also discusses the identification of recent evidence of looting.*] Prepared for the Government of Belize, Institute of Archaeology, and Ya'axche Conservation Trust. April 2013.

**Abramiuk, M.A.** (2012) Creating a Store that Understands Its Customers: An Assessment Based on Findings at Lowes-Mexico and a Proposal for Making a Store that "Learns" Customers' Wants and Needs. Contracted by SciFutures in support of Lowes' International Division. October 2012.

**Abramiuk, M.A.** (2012) Kajaki District Survey, Wave 2: Quantitative Analysis and Report. Contracted by IDS International in support of DoD. June 2012; *Unclassified*.

**Abramiuk, M.A.** (2012) Tranche 3 Transition Survey: Qualitative Analysis and Report. Contracted by IDS International in support of DoD. May 2012; *Unclassified*.

**Abramiuk, M.A.** (2012) Intrinsic Motivation for Successful Transition and the Way Forward in Afghanistan. Contracted by IDS International in support of DoD. April 2012; *Unclassified*.

**\*Abramiuk, M.A.** (2011) List of Archaeological Sites Post-Recon. [*This is a list of archaeological sites initially identified through aerial imagery which have been ground truthed by me and assessed to be significant archaeological sites as well as potential cultural heritage sites.*] In support of RCT-5 S-3 Effects, Camp Dwyer, Afghanistan, September 2011; *Unclassified*.

**\*Abramiuk, M.A.** (2011) Anti-Looting and Cultural Heritage Preservation in the Central Helmand River Valley: An Archaeological Reconnaissance of Garmsir and Nawa Districts. [*This is a proposal and plan to locate, identify, and survey Pre-Islamic and Early Islamic archaeological sites in southern Helmand Province, which were at risk of being looted and could potentially be classified as cultural heritage sites. The reasons for doing this were to set the groundwork for protection and restoration, to promote regional solidarity through educating locals of their common heritage, and to spur involvement from GIROA's Ministry of Information and Culture in the cultural affairs of rural southern Afghanistan.*] In support of RCT-5 S-3 Effects, Camp Dwyer, Afghanistan, September 2011; *Unclassified*.

**Abramiuk, M.A.** (2011) Understanding the Economic Mindsets of Agriculturalists in Garmsir District, Phase I of III. In support of RCT-5 S-3 Effects, Camp Dwyer, Afghanistan, September 2011; *Unclassified*.

**\*Abramiuk, M.A.** (2011) Documentation and Assessment of Amir Agha Shrine, July 28, 2011. [*Objective was to document, survey, and assess an Early Islamic Sayid burial shrine, known as Amir Agha Shrine, which held significant importance to the people of Garmsir District. The assessment was that the shrine be restored for the populace, and that it be undertaken under the auspices of the Afghan Government's Ministry of Information and Culture (MoIC).*] In support of RCT-1 S-3 Effects, Camp Dwyer, Afghanistan, July 2011; *Unclassified*.

**\*Abramiuk, M.A.** (2011) Documentation and Assessment of Safaar Shrine, July 23, 2011. [*Objective was to document, survey, and assess an Early Islamic Sayid burial shrine, known as Safaar Shrine, which held significant importance to the people of Garmsir District. The assessment was that the shrine be restored for the populace, and that it be undertaken under the auspices of the Afghan Government's Ministry of Information and Culture (MoIC).*] In support of RCT-1 S-3 Effects, Camp Dwyer, Afghanistan, July 2011; *Unclassified*.

**Abramiuk, M.A.** (2011) Understanding People's Attitudes toward GIROA and Coalition Forces in Nawa-i-Barakzayi District, Phase I of III. In support of RCT-1 S-3 Effects, Camp Dwyer, Afghanistan, July 2011; classified *Secret*.

**Abramiuk, M.A.** (2011) An Analysis of the Factors behind the Varying Success of Afghan Local Police in Southern Marjah and Nawa-i-Barakzayi. In support of RCT-1 S-3 Effects, Camp Dwyer, Afghanistan, July 2011; *Unclassified*.

**Abramiuk, M.A.** (2011) Assessment of the Growth and Sustainability of the Afghan Local Police Force in Southern Marjah District. In support of RCT-1 S-3 Effects, Camp Dwyer, Afghanistan, May 2011; classified *Secret*.

**\*Abramiuk M.A.** (2009) A Cursory Examination of Stone Artifacts from the Lamanai Collections, in "Progress Report of the Lamanai Archaeological Project (LAP): The 2009 Season." [*This report discusses the sourcing results of the stone artifacts of Lamanai. Results indicate a connection with the Maya Mountains, as well as the highlands of Guatemala.*] Prepared for the Government of Belize, Institute of Archaeology.

**\*Pesek T., Abramiuk M.A.,** Garagic D., Fini N., Dunham P., Rojas M., Sanchez P., Poveda L., Meerman J., Cal V., Knight K., and J. Arnason. (2007-2008) "Progress Report of the Maya Mountains Ethnobotany and Ecology Project (MMEEP): The 2007 and 2008 Seasons." [*This report includes a discussion of the archaeological and ethnobotanical findings in 2007 and 2008.*] Prepared for the Government of Belize, Forest Department and Institute of Archaeology.

**\*Pesek T., Abramiuk M.A.,** Fini N., Cal M., Cal V., Arnason J., Collins S., Poveda L., Sanchez P., Rojas M., Minty C., Mai H., and M. Windsor. (2006) "Progress Report

of the Maya Mountains Ethnobotany and Ecology Project (MMEEP): The 2006 Season." [This report includes a discussion of the archaeological and ethnobotanical findings in 2006.] Prepared for the Government of Belize, Forest Department and Institute of Archaeology.

**\*Abramiuk, M.A.** (1996) The 1996 Reconnaissance of the Snake Creek Valley, Belize. [This report discusses the results of the first archaeological survey conducted in Snake Creek Valley. Several key mountain (cave) shrines were located and the associated artifacts documented before salvaging. Artifacts were salvaged rather than left to remain in situ due to increased looting in the valley and the fear that the artifacts would be taken.] Field report submitted to the director of the Maya Mountains Archaeological Project (Dr. Peter Dunham), Cleveland State University, Cleveland, Ohio.

**\*Abramiuk, M.A.** (1995) The 1995 Reconnaissance of the Cockscomb Basin and Adjacent Sale Si Puede Valley, Belize. [This report discusses the events leading up to the re-discovery of the Pearce Ruins since they were last examined by Thomas A. Joyce over 60 years ago.] Field report submitted to the director of the Maya Mountains Archaeological Project (Dr. Peter Dunham), Cleveland State University, Cleveland, Ohio.

### **PRESENTATIONS, FORMAL BRIEFINGS, AND CONFERENCE ORGANIZATION:**

(\* denotes archaeological and cultural heritage related presenting and organizing)

\* Protecting the Cultural Resources of Ojai is Paramount. Ojai City Hall Meeting [Ojai, California; March 2015]

\* Reflections on the Intersection of Archaeology and Cognitive Science [Cotsen Institute of Archaeology, University of California Los Angeles; November 2012]

The Sociocultural Research Team Capabilities Brief [Introductory Briefing for the RCT-5 Commander and his Staff; Camp Dwyer, Afghanistan; August 2011; *Unclassified*]

\* Preserving Cultural Properties in Helmand Province, Afghanistan, and Its Social Impact [RCT-5 S-3 Effects, Stability and Operations Meeting; Camp Dwyer, Afghanistan; August 2011; *Unclassified*]

Encouraging Productive Village Leadership in Nawa-i-Barakzayi District [RCT-1 S-3 Effects, Stability and Operations Meeting; Camp Dwyer, Afghanistan; July 2011; classified *Secret*]

An Evaluation of the Growth and Sustainability of the Local Police Force in Southern Marjah District [RCT-1 S-3 Effects, Stability and Operations Meeting; Camp Dwyer, Afghanistan; June 2011; classified *Secret*]

- \* Uncovering the Prehistory of the Maya Mountains of Belize: Archaeology and Its Role in the Maya Mountains Ethnobotany and Ecology Project (MMEEP) [Department of Biological, Geological, and Environmental Sciences, Cleveland State University; 2008]
- \* Regional Societal Development and Inter-Community Dynamics in the Maya Mountains, Toledo District, Belize [K'inah Winik Maya Conference; Cleveland, Ohio; September 2005]
- \* A Statistical Analysis of Mano and Metate Economics in the Bladen Region of the Maya Mountains, Toledo District, Belize [Society for American Archaeology (SAA) Meeting; Salt Lake City, Utah; April 2005]
- \* Inter-Community Interaction as an External Memory Storage Device [Theoretical Archaeology Group (TAG) Meeting; Glasgow, Scotland; December 2004]
- \* Classic Maya Ground Stone Exchange In and Around the Maya Mountains [Society for American Archaeology (SAA) Meeting; Milwaukee, Wisconsin; March 2003]
- \* Organizing committee for the 7th European Maya Conference; London, England; November 2002
- \* Classic Maya Ground Stone Exchange [Society for American Archaeology (SAA) Meeting; Denver, Colorado; March 2002]
- \* The Ancient Maya and Exchange [Department of Geosciences, University of Houston; February 2002]
- \* Neural Dynamics: An Application to Classic Maya Ground Stone Exchange [Institute of Archaeology, First Year Presentation, University College London; 2001]
- \* An Analysis of Some Simple Mathematical Models and Their Applications to Archaeology [Department of Mathematics and Statistics, York University; 1999]
- \* The Mathematical Modeling of Complex Social Phenomena and Its Application to Archaeology [Department of Mathematics and Statistics, York University; 1999]

**RESOURCE DEVELOPMENT:**

*Research, Scholarship, and Creativity Activity (RSCA) Grant through California State University Channel Islands (2016)*

Startup funds for developing the archaeological component of the MMEEP (2006-8). Granted by Dr. Todd Pesek (PI of MMEEP) through Cleveland State University and Naturaleza Foundation

*Conference Costs Fund from the Institute of Archaeology to give paper at SAA Meeting (2003)*

*Overseas Research Students (ORS) Award from the British Council (2000-03)*

*Central Research Fund from University of London (2002)*

*Fieldwork Costs Fund from the Institute of Archaeology and the UCL Graduate School to conduct Ph.D. fieldwork in Belize (2001)*

*Research Fund from York University to do M.A. fieldwork in Belize (1998)*

*Full grant from Sigma Xi, the Scientific Research Society (1994)*

*Full grant from Explorer's Club (1994)*

**LANGUAGE SKILLS:**

Ukrainian – speak, read and write with advanced competence

Russian – speak, read, and write with intermediate competence

Spanish – speak, read, and write with intermediate competence

Italian - speak, read, and write with beginning competence

Farsi (dialect spoken in Iran) – speak, read and write with beginning competence

Pashto – speak, read, and write with beginning competence

**COMPUTER SKILLS:**

Basic Programs: MS Word, Excel, PowerPoint, Outlook.

General Programming Abilities: C++, R.

Statistical Packages: SPSS, SAS, S-Plus.

Mathematical Modeling Packages: MATLAB, Maple.

Geo-Spatial and Link Analysis Packages: Palantir, Analyst's Notebook, Anthropac, Map-HT and related ArcGIS, and TIGR.

***Reconstructing Classic Maya Political Organization at Quebrada de Oro, Belize***  
**Proposal Narrative – PI: Marc A. Abramiuk, Ph.D., RPA**

Proposal Summary

The proposed research seeks to determine the territorial extent associated with the once bustling ancient Maya settlement going by the modern site designation of Quebrada de Oro, located in what is today southern Belize and named after the valley in which it is located. Quebrada de Oro is one of four settlement sites situated in the remote Bladen Branch drainage of the southern Maya Mountains proper, a region that has long concealed its political past. It is the only ancient Maya settlement site in the region that displays archaeological features that can be interpreted as territorial markers. The proposed research for which the PI seeks funding follows up on fieldwork conducted by the PI in 2016, which was funded through an RSCA grant. In the course of completing the objectives of the 2016 fieldwork, the PI uncovered a causeway system that ties a number of structural complexes to the ceremonial center making it one of the most expansive sites in southern Belize. The PI also learned of reports of stelae that have yet to be substantiated. Locating and mapping these causeways and any stelae form the principal objectives of the proposed research. Accomplishing these objectives will shed important new light on how and to what extent ancient Maya communities of the Bladen Branch drainage wielded political power. The proposed fieldwork, planned for a two-week window (May 24-June 8, 2017), will lead to a number of research products and will serve as a research and learning platform for CI students.

Background and Significance

Although geographically considered part of the Maya lowlands, the southern Maya Mountains are topographically distinctive. The rugged karstic terrain and thick foliage limits access into and out of the southern Maya Mountains, making forays through the interior difficult and only possible on foot. As a result, the southern Maya Mountains are one of the least explored regions of the southern Maya lowlands and today remain uninhabited. During the Classic period (AD 250-900), however, the picture could not have been more different. The region during Classic times harbored an active population, the evidence for which can be found in caves (Prufer 2002) as well as in the remains of settlements. Communities were established on the only flat, arable patches available, and the people sustained themselves by creatively implementing various intensive agricultural strategies (Abramiuk et al. 2011; Dunham et al. 2009). The southern Maya Mountains communities also played an important economic role in the ancient Maya world, as they were involved in procuring resources for manufacturing hard stone implements that were exported throughout the Maya lowlands (Abramiuk and Meurer 2006; Graham 1987). Certain faunal species, some of which were unknown to science until recently, were probably also economically exploited by the ancient Maya for their byproducts (Dunham et al. 1992), as were certain varieties of flora that may have been used medicinally (Abramiuk et al. 2011).

Whereas some insight has been gleaned into the agricultural and economic bases of these ancient communities, archaeologists' understanding of the communities' political roles remains obscure. Elsewhere in the Maya lowlands, including the southern Maya Mountains periphery (Wanyerka 2009), political organization has been examined through archaeological and epigraphic data, but virtually no headway related to this topic has been made in the interior of the

southern Maya Mountains. This is largely due to the fact that epigraphic data recounting political life have gone undiscovered in the mountains, and few archaeological features until recently have been identified that can be interpreted to have served political functions.

The manner in which political authority was wielded within and between ancient communities depends on knowing where one community's territory ended and another began. Certain archaeological remains can serve as a starting point for reconstructing the territories of ancient communities and, consequently, understanding how ancient communities were politically organized. Fortunately, the site of Quebrada de Oro offers a unique opportunity to learn about territoriality through studying two recently discovered feature types at the site which can be interpreted as territorial markers—these being causeways (Abramiuk 2016) and stelae (Abramiuk et al. 2009).

### Framing Research

One of the more convincing reasons why territorial indicators have gone undetected in the southern Maya Mountains until recently may be because the necessary authority to express territoriality was simply suppressed by a higher authority. Archaeologists' general understanding of Classic Maya political organization is that a "semi-rigid" form of hierarchy structured intercommunity relations (Martin and Grube 1994:31). Accordingly, it may be that modest-sized communities, such as those situated in the southern Maya Mountains proper, were largely prohibited from asserting political authority by their larger more powerful overseers. If this was the case, then the evidence of territoriality that has recently come to light at Quebrada de Oro may suggest that Quebrada de Oro wielded somewhat greater political power than did its neighboring communities.

The site of Quebrada de Oro, although similar to its Bladen drainage neighbors in some respects, has distinctive characteristics of its own that set it apart, including a ballcourt and a complex causeway system—the first of its kind recorded in southern Belize (Abramiuk 2016). Ballcourts have been proposed as strategic, as well as ritual, settings for negotiating political relations (Fox 1996), and it has been suggested that causeways were means of extending the reach of a ceremonial center and integrating political authority (Webster 1984:23). It is this latter function that has been proposed for the massive causeway system associated with the large site of Caracol (Chase and Chase 2001), and there is little reason to suggest that the manner in which power was wielded there was different than at Quebrada de Oro, particularly considering certain resemblances between the two sites' causeway systems. Also distinctive is the fact that stelae at Quebrada de Oro are not located within the site core but rather distributed across a broad area encompassing the site core (Abramiuk et al. 2009; Dunham et al. 1993), including a ridge located between Quebrada de Oro and a neighboring site known as the RHF Site (Peter Dunham, pers.comm., 2016). Like many stelae at Copan, it seems as if stelae at Quebrada de Oro functioned territorially as domain or access-way markers.

Together the evidence indicates that Quebrada de Oro constitutes the remains of a unique center that benefited from its geographic location amidst a multitude of exploitable resources. Considering how causeways and stelae were used to demarcate territory, it is also probable that Quebrada de Oro sometime during the Classic period maintained a certain amount of political as well as economic clout. Whatever role Quebrada de Oro played in the past, the site appears to be a prime archaeological candidate for exploring territoriality in the southern Maya Mountains.

## Research Plan, Methodology, and Dissemination of Results

Quebrada de Oro is located in the modern-day Bladen Nature Reserve, a strictly protected conservation area in southern Belize overseen by Ya'axche' Conservation Trust (YCT). All research conducted in the reserve must follow protocol that minimizes impact on the environment. With this in mind, the plan for undertaking fieldwork in the region is to bring in only essential food and equipment that can be easily carried in and out of the reserve. Four local guides will be hired to help with the transport of supplies.

Currently, the PI is seeking external as well as internal funds to continue his research at Quebrada de Oro. The PI has already prepared and submitted research proposals to the National Geographic Society as well as to the National Science Foundation and will keep seeking other sources of funding. If external funding is awarded, then the CI minigrant will complement these funds and will help support four-weeks of project time in Belize. Should external funding not be awarded, then the CI minigrant will be used to support a streamlined version of the proposed research consisting of two-weeks of project time in Belize. Since no funds have been issued yet, prudence demands that the research plan, methodology, and budget be designed for the two-week version. This being the case, it is anticipated that ten days in the Bladen Nature Reserve will be sufficient to accomplish the main fieldwork objectives; two days will be required for traveling to and from Quebrada de Oro by foot and eight days will be needed to undertake the fieldwork.

Although one segment of the causeway system and one stela in the vicinity of the Quebrada de Oro site core have been mapped with a Total Station (TS), the rest of the causeway system will need to be mapped. Points delineating the edges of the causeways will be plotted digitally using the TS and stored in a data recorder. To back up the data, copies of the data will be downloaded and stored in an ancillary data storage device each evening. A pedal charger, which has proven useful in past expeditions, will be brought into the field to charge batteries.

The surrounding escarpments around Quebrada de Oro will also be systematically explored for passes into adjacent tributary valleys. Identification of these passes may suggest that Quebrada de Oro had direct links with its neighbors to the east and west which will in turn provide invaluable information concerning intercommunity interaction. Indeed, it is possible that the stela reported atop a ridge between Quebrada de Oro and its western neighbor—the RHF Site—may have marked such a link rather than a boundary.

Any remaining time will be spent seeking other identifiable stelae associated with the site of Quebrada de Oro. Stelae will be sought by dividing the project participants and guides into three teams and surveying along parallel transects spaced approximately five meters apart. If stelae are located, their locations will be recorded with a handheld GPS, and they will be photographed and described.

Upon completion of the field season in late June, the data collected in the field will be used to generate a map of the site of Quebrada de Oro. This map will be included in a field report detailing the fieldwork that was undertaken and the implications of any accompanying discoveries. This report will be drafted and submitted to CI's Chancellor's Office by August 31, 2017 as requested in the grant application guidelines. The PI plans on publishing at least two articles from the proposed research—one likely in *Antiquity* and another in *Ancient Mesoamerica*. The PI also plans on presenting a paper at the 2018 Society for American Archaeology meeting. Reports of the fieldwork will also be provided to the Institute of

Archaeology of Belize, the Forest Department, and YCT. The latter report will include waypoints through Quebrada de Oro for YCT patrollers to follow. It is anticipated that this will help discourage looting in the region which unfortunately has taken its toll on some structures.

### Project Assessment and Benefits of Research

The purpose of the proposed research, like much archaeological research, is to improve our knowledge of the past inductively. In particular, the proposed research seeks to reconstruct the ancient territory associated with Quebrada de Oro by mapping the extent of its causeways and stelae. Through this process, archaeologists will better understand the manner in which political power was wielded both within Quebrada de Oro's boundaries, and between it and its neighbors. Network theory can be extremely helpful in this regard. Based on the centrality of the linkages between the Quebrada de Oro site core and the peripheral settlement, much light can be shed on issues of political control and integration in and around Quebrada de Oro. The success of the proposed research will be indicated by having: 1) recorded all of Quebrada de Oro's causeways, 2) generated a map of the extent of Quebrada de Oro's territory (reflected by the dimensions of the causeway system), and 3) inferred from 1 and 2 the manner in which Quebrada de Oro wielded power. Ultimately, the final measure of success is dictated by how the inferences that are detailed in the PI's reports and articles are accepted among the PI's peers.

The proposed research will benefit the PI, his students, as well as CI. It will benefit the PI by allowing him to conduct work that contributes directly to the enhancement of archaeological knowledge. Not only will the proposed research satisfy a purely scholarly desire to contribute to the field, it will serve as means of connecting with students on a level that the PI feels will increase student interest and information retention. The proposed research will allow the PI to infuse his lectures with his own findings, making the lectures personalized and therefore engaging for students. It is also through the proposed research that the PI will be able to work more directly with anthropology students in their chosen major, since the PI intends to involve two students in the fieldwork. Although the students will need to pay for their airfare, their subsistence will be covered through the minigrant, and they will receive course credit for their participation. The proposed research will also benefit CI. Scientific knowledge of the southern Maya Mountains is generally lacking, largely due to the logistical difficulty working in the region. The region has much it can teach us, not just about the ancient Maya world, but about biodiversity and human ecology among other subjects that cross into other disciplines. This being the case, the PI envisions the proposed project as providing a research platform that students and faculty members in anthropology as well as other disciplines may utilize for years to come.

### Conclusion

While archaeological knowledge of Classic Maya politics in much of the Maya area has advanced steadily over the past century, it has remained at a virtual standstill in the southern Maya Mountains. The political roles of once thriving communities in the southern Maya Mountains continue to defy understanding. Even though the sites of the region have much to reveal, archaeologists' grasp of these sites has been stymied by the logistical difficulty working in the region. This project aims to end the lull by teasing from the southern Maya Mountains a political world that has remained hidden for far too long.

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Project Budget (project dates: May 24-June 8)	Cost	Days/Nights	Persons	Total	Justification
Marc Abramiuk Summer Pay	\$ 282	3		\$ 846	\$282/day x 3 days. To keep costs low provided no other funding comes through, the PI only asks for 3 days of summer pay.
Faculty Summer Pay Fringe Benefits				\$ 305	Estimated at 36% since faculty is a P/T Lecturer with unit load to be determined for Spring 2017
Flight (roundtrip)	\$ 650		1	\$ 650	Flight is needed to get from Los Angeles to Belize City and back, including overage costs. Gear and equipment will be needed to conduct fieldwork which will surpass standard weight limit and will cost extra.
Hotel in Belize	\$ 85	5	3	\$ 1,275	Hotel will be needed in Belmopan and in Punta Gorda before and after the trip into the Bladen Nature Reserve.
4wd vehicle	\$ 1,450			\$ 1,450	4wd vehicle will be needed to transport guides, students, and PI to the Bladen Nature Reserve boundary.
Gas	\$ 150			\$ 150	Gas for the vehicle
Food (in city)	\$ 50	5	3	\$ 750	Food will be consumed in Belmopan and Punta Gorda.
Food (10 days in Bladen Nature Reserve)	\$ 50		7	\$ 350	Food will be consumed in the Bladen Nature Reserve. Beans and rice are an expedition favorite. This means that food costs are much lower in the field than in the city.
Local employment	\$ 44	10	4	\$ 1,760	Four guides will be needed in the Bladen Nature Reserve.
Permit application fees (archaeology/forest)	\$ 200			\$ 200	Permits are required to conduct archaeological fieldwork and to work in a nature reserve. Associated application fees apply.
SAT Phone rental (+ insurance)	\$ 200			\$ 200	SAT phone is carried in Bladen Nature Reserve in case of an emergency.
Miscellaneous expenses	\$ 100			\$ 100	Belize departure cost, extra in-country supplies, and other miscellanea.
Subtotal in-country project expenses				\$	6,235
15% of all in-country project expenses for archeological permit	\$ 935			\$ 935	The Institute of archaeology in Belize receives 15% of all in-country project costs when granting a permit.
<b>Total</b>				<b>\$ 8,971</b>	

## Research and Development Minigrants for 2017-2018: Review Form

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**Routing Step:** Initial Committee Review

**Application Title:** Reconstructing Classic Maya Political Organization at Quebrada de Oro, Belize

**Application ID:** #000071

**Review Deadline:** Jan 27, 2017 11:59:00 PM

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### \*Project Goals and Outcomes:

*The proposal sets clear goals and outcomes for the project, and it explains the steps that will be taken to realize project goals.*

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### Rating Scale 1 (1 weakest to 11 strongest):

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### \*Research Plan and Methodology:

*The proposal conveys a complete and well thought-out plan for the project that describes the activities of all individuals involved in the project. If support is requested for student research assistance, the proposal must also include a description of their role in the project and how the faculty*

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### Rating Scale 2 (1 weakest to 11 strongest):

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### \*Professional Development Benefits for the Faculty:

*The proposed makes clear how the project will advance each individual applicant's or research, scholarship, creative activity, or innovation in teaching. The proposal discusses whether the applicant(s) intend to pursue external funding and identifies those external funding opportunities.*

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### Rating Scale 3 (1 weakest to 11 strongest):

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### \*Project Benefits:

*To what extent does the proposed qualify for special consideration (e.g., applicant is*

*probationary, applicant has not had minigrant funding in the past, applicant has been especially successful in the use of past minigrant funding, project scope is particularly ambitious but realizable).*

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**Rating Scale 4 (1 weakest to 11 strongest):**

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**\*Dissemination Plans:**

*The level and type of dissemination is appropriate for the project, its goals, and its outcomes.*

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**Rating Scale 5 (1 weakest to 11 strongest):**

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**\*Project Timeline:**

*The project goals and objectives are attainable within the timeline of the proposal.*

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**Rating Scale 6 (1 weakest to 11 strongest):**

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**\*Project Assessment:**

*The proposal describes how the product(s) of the project will be assessed and evaluated to determine the degree of success achieved.*

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**Rating Scale 7 (1 weakest to 11 strongest):**

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**\*Project Budget:**

*The proposed budget is reasonable in the context of the project description, and the project costs are necessary to achieve project goals and outcomes.*

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**Rating Scale 8 (1 weakest to 11 strongest):**

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**\*Other considerations:**

*To what extent does the proposed qualify for special consideration (e.g., applicant is probationary, applicant has not had minigrant funding in the past, applicant has been especially successful in the use of past minigrant funding, project scope is particularly ambitious but realizable).*

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**Rating Scale 9 (1 weakest to 11 strongest):**

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