

# TRENT ARCHAEOLOGIST VIII

## ANNUAL REPORT OF THE TRENT UNIVERSITY ARCHAEOLOGICAL RESEARCH CENTRE

This report is a summary of the activities of the Trent University Archaeological Research Centre (TUARC) for 2018-20. This report contains information on the various outreach activities undertaken, our membership, current projects and research, and funding successes for our research fellows as well as the centre. The report also provides a detailed financial report in addition to a list of articles/books/reports published by TUARC research fellows in the past year. This report is available digitally at <http://trentu.ca/tuarc/>

### Research Organization's Mission Statement:

The Trent University Archaeological Research Centre (TUARC) is dedicated to the investigation and understanding of past cultures through studies of material culture and environmental evidence, analysis of field, laboratory, and archival data, and the education of students and interested community members by courses, publications, and lectures. One of the main goals of TUARC is to disseminate information on archaeological topics to an academic as well as a non-academic audience. The following pages outline some of our activities and accomplishments over the past year.

#### TUARC mission

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Research: TUARC facilitates high-calibre archaeological research, from within Peterborough to around the world.

Education: TUARC encourages and supports the study of archaeology and cultural heritage by Trent students, undergraduate and graduate alike.

Outreach: TUARC engages Trent students and the public in archaeological research and increases appreciation to archaeology and cultural heritage through education and outreach.

Professional Development: TUARC fosters connections among academics, heritage professionals, and independent researchers.

#### Directors

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William Fox - 2021 - present

Jennifer Moore - 2019-21

Eugène Morin - 2017-19

Rodney Fitzsimons - 2016-17

Eugène Morin - 2015-16

Jocelyn S. Williams - 2012-15

Marit M. Munson - 2008-12

James Conolly - 2005-08

Paul Healy (founding) - 2001-05

## Director's Report

In the summer of 2019 July, Jennifer Moore took over the reins from Eugene Morin as Director of TUARC, little knowing what the world had in store less than a year on. The COVID 19 pandemic burst upon the global stage in the first months of 2020, shattering the world as we knew it. Everything changed, particularly in the realm of interpersonal communications, drastically altering the operation of academe, including our Centre. Trent's Anthropology Department graduate secretary had just assumed administrative responsibility for TUARC, so Yumi and Jennifer were left to respond to these challenges. Yumi's first achievement was the redesign of our Website <http://trentu.ca/tuarc/>, and since then she has worked with Jennifer and then myself to keep TUARC functioning. Jennifer's term continued until the end of June this year, when the Directorship was passed on to myself.

Yumi and I have attempted to keep TUARC moving forward through the organization of our Fall meeting and production of the Centre's eighth newsletter which we hope will not only be of interest, but also provide encouragement to each of you through documenting the accomplishments of fellow members.

## Report on the Santa Rosa Archaeological Project Initiative

Jennifer Newton and Helen R. Haines

In December of 2020, the Ambassador of Costa Rica, His Excellency Mauricio Ortiz, contacted Dr. Eugene Morin regarding an archaeological collaboration. The offer was then brought forward to the members of TUARC by Dr. Jennifer Moore that same month, to assess their interest in project. His Excellency, was hoping that members of TUARC would be interested in collaborating with Costa Rican archaeologists and academics to excavate and learn more about the 1856 battle at the Hacienda de Santa Rosa.

The site is of national and cultural importance to the people of Costa Rica as it was where the Costa Rican people successfully fended off American-led expansionists. The site of the battle is in what is now the Santa Rosa National Park, in the province of Guanacaste, Costa Rica. The park was founded in 1972 and named in commemoration of the battle. Historical research has been conducted on the event and will be a forthcoming publication which the Ambassador graciously shared with those TUARC members who have volunteered to be involved in the project (Jennifer Newton, Dan Rafuse, Jeff Seibert, and Helen Haines).

While there is an idea as to where the battle occurred and where the unmarked graves of the soldiers may be, no excavation work has occurred at the site. His Excellency, approached us on behalf our Costa Rican colleagues (Dra. Maureen Sanchez, and Dr. Norberto Baldi) who would like to collaborate with us on a variety of research projects: geophysical survey, bioarchaeological analysis, and archaeological excavation work. Dr. Baldi, from the University of Costa Rica, will implement the agreement and lead the Costa Rican archaeological team, while Dra. Sanchez will serve as an external councilor and professor emeritus on the project. Dr. Jennifer Newton and Dr. Dan Rafuse will spearhead the TUARC archaeological team. Dr. Siebert will contribute through his extensive knowledge of, and experience with historical battle sites.

The project is still in the inception stage, with Dr. Newton and Dr. Haines, working with Dr. Sean Lockwood in the Research Office to secure an Insight Development Grant in 2022. The plan is to initiate a preliminary two-year project that would take the Trent team to Costa Rica for survey work (pedestrian, GPR, and test pitting) in the summer of 2022, with excavation work starting in 2023. The 2022 visit also would encompass logistical assessments for a future joint field biological field school for University of Costa Rica and Trent University students.

2001 *Santa Rosa, parje de biofiversidad y escenario de la libertad*. University Técnica National, Costa Rica.  
Report on the Santa Rosa Archaeological Project Initiative

## Public Outreach

The many forms of outreach practiced by the profession of archaeology not only display and explain the public benefit of the discipline, but can contribute in a substantive way to Canadian social objectives such as the truth and reconciliation commitments to Indigenous communities and broader inclusive initiatives impacting the lives of racial and ethnically marginalized minorities.

### Ian Begg

As a virtual book launch of *Lost Worlds of Ancient and Modern Greece* at Trent in April 2021, I presented a public lecture contextualizing both the book and its research. It has started to receive academic reviews with more anticipated.

### Jennifer Birch

My public outreach activities during the past three years have included the following four public lectures:

- 2019 Keynote address, ICOMOS Canada Annual Meeting, Whitehorse, Yukon
- 2020 Ottawa Chapter of the Ontario Archaeological Society, Ottawa, ON (via Zoom).
- 2020 Toledo Chapter of the Archaeological Institute of America, Toledo, OH (via Zoom).
- 2021 Peterborough Chapter of the Ontario Archaeological Society, Peterborough, ON (via Zoom)

### Laure Dubreuil

In March of 2020, I presented a public lecture at the Monrepos Research Museum in Germany, concerning ground stone tool technology and the transition from foraging to farming in the southern Levant.

### Paul Duffy

On November 2nd and 3rd, 2019, with Ted Banning and Sally Stewart, I presented papers at the annual Ontario Archaeological Society Symposium in Toronto entitled: "Digging in our backyard: working ahead of the bulldozers at the Huron-Washington Parkette" and "Campus underground: teaching field skills while preserving heritage ahead of the bulldozers".

### William Fox

Bill participated in the following Indigenous monitor training sessions:

- 2018 "Great Lakes Archaeology" at New Credit Reserve (Mississaugas of the New Credit)
- 2019 "Ontario Archaeology 101" at Muncey Reserve (Chippewas of the Thames)
- 2019 "Ontario Archaeology 101" at Tuscarora Reserve (Six Nations of the Grand River)
- 2019 "Ontario Archaeology 101" at the Ojibwe Cultural Foundation, M'Chigeeng,

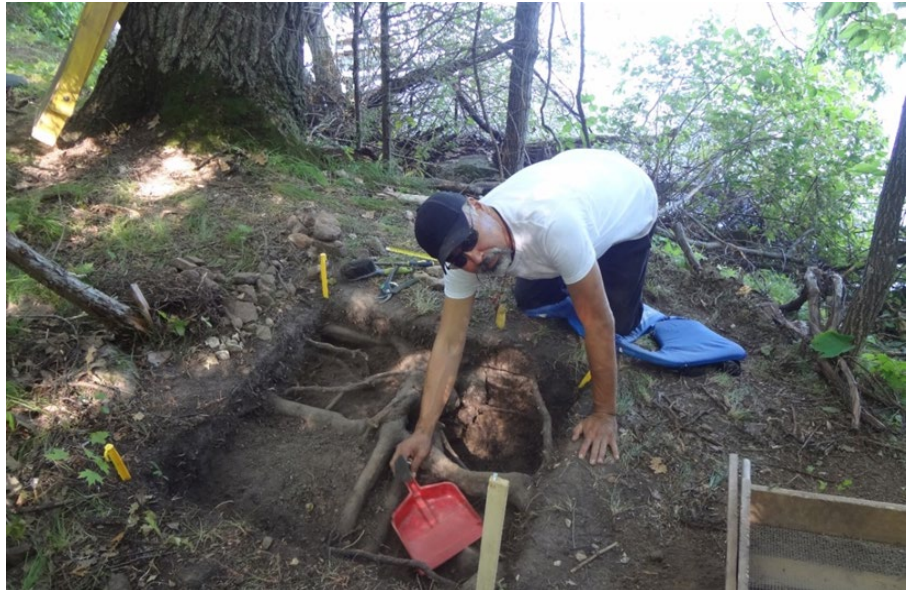
as well as presentations at the following public meetings:

- 2018 "Sixteenth Century Chatham" at the annual Ontario Archaeological Society Symposium in Chatham.
- 2019 "Indigenous History and the Odawa", "Earliest European Exploration", and "War of 1812 on the Great lakes" on the Smithsonian Journeys Great Lakes Grand Voyage tour
- 2019 "Drawing a Bead on the Iroquois du Nord Narrative" at the annual Ontario Archaeological Society Symposium in Toronto
- 2020 "Understanding Legacy Collections: The Heye Foundation Collection from Lake Medad" at the (virtual) annual Ontario Archaeological Society Symposium.

2021 “Lithic Sourcing in Eastern Mongolia – Five Weeks in the Gobi” at the (virtual) September meeting of the Ontario Archaeological Society, Grand River Chapter

2021 “Indigenous History: Reading Between and Beyond the Lines” at the (virtual) October meeting of the Hastings County Historical Society

2021 “Indigenous History: Reading Between and Beyond the Lines” at the (virtual) November meeting of the Ontario Archaeological Society, Peterborough Chapter



*Curve Lake Training School graduate Curtis McCue carefully excavates a unit at the Middle Woodland Mink Site (BbGm-43) on White’s Island, Rice Lake.*

### **Lawrence Jackson**

In the summers of 2018 and 2019, in co-operation with Curve Lake First Nation, I served as Field Director on a training project for First Nation liaisons on White’s Island, Rice Lake. Students from the Williams Treaties First Nations were given intensive training in excavation of a minimally disturbed set of small Middle Woodland camps. They learned basic techniques of artifact identification, trowel excavation, mapping and profile drawing. My archaeological field assistant was Daniel Smith, a recent M.A. graduate of Trent Anthropology. The classroom training program, which included archaeological and Indigenous knowledge background, was taught in Peterborough with Julie Kapyrka (CLFN), James Conolly (Trent University), Anne Taylor (CLFN), Mark Douglas, Elder and other guests. The success of the training program allowed Curve Lake First Nation to field two cohorts of trained liaisons who served in subsequent years on projects throughout the very large Williams Treaties First Nations traditional and treaty territory.

### **Suzanne Needs-Howarth**

Suzanne continues in her volunteer roles with the Ontario Archaeological Society, until recently as copy editor and member of the editorial advisory board, and, since the beginning of 2021, as a co-editor of the society’s peer-reviewed journal, *Ontario Archaeology*. In 2020, she was part of the symposium program committee and the recipient of the Society’s Charles and Ella Garrad Award for Outstanding Service. Together with Alicia Hawkins, Trevor Orchard, Frances Stewart, Eric Tourigny, and Eric Guiry, she has produced a white paper for the OAS, setting out recommendations for zooarchaeology in Ontario archaeology. From early 2018 to late 2021, she has presented one poster and five papers at Ontario Archaeological Society meetings.

### **Daniel Rafuse**

Dan continues his work with The Argentine Forensic Anthropology Team (EAAF), including missions in the Central African Republic, Argentina, and Mexico.

### **Jeff Seibert**

Jeff works for the Ontario Ministry of Transportation (MTO) as a regional archaeologist, continuing to offer technical and policy guidance regarding archaeology to municipal planners and engineers on a number of transportation projects across the province.

### **Theresa and John Topic**

The Topics have long cultivated close links with the population of Huamachuco, Peru, playing key roles in the founding of the Museo Wamachuko in 2002 and being inducted into the order of Jose Faustino Sanchez

Carrion by provincial authorities. This outreach has continued through Covid times with virtual participation in conferences and symposia. John Topic was a speaker for the launch of a new periodical, "La Revista Culle: Revista de Sociedad y Cultura" Año 1 No 1 in May 2021 and contributed an article to the journal "Unas observaciones sobre La Escalería".

In July 2020 the Topics participated in the V Simposio Culle: Cultura y Lengua Viva. The conference focused on literature in the nuclear zone of the Culle language. John Topic presented a paper entitled "Arqueología en la región de culle hablantes" and Theresa Topic served as panelist in the session on Cosmivision and Religion. In December 2020 the Topics participated in a virtual conference on Cooperación Técnica hosted by Universidad Nacional Ciro Alegría Huamachuco speaking on "En la tierra del oráculo de Catequil: arqueología de Huamachuco antiguo".

The Topics continue to be in frequent contact with personnel of the Unidad Ejecutora 007, a team authorized by the Peruvian federal government to continue with archaeological research and rehabilitation of major sites in the Huamachuco area.

## Collaborative Research Grants (CRG)

In the last three years, seven CRG grants were awarded.

In 2018, funding was attributed to Angela Evoy for her project titled: "Functional Investigation of Stone Axes/Adzes from Neolithic Mongolia.", and Cassandra Hamilton for her project titled: "Bone Grease Rendering in the Upper Paleolithic at the Vale Boi Site." Each recipients received \$500 from TUARC.

In 2019, funding was attributed to Grant Smith for his project titled: "Diet and status: Osteological and stable isotope analysis of the Postclassic Maya of Ka'Kabish, Belize.", Di Hansen and Jolyane Saule (co-applicants) for their project titled: "Experimental archaeology for the evaluation of debitage analysis method.". Each recipients received \$500 from TUARC.

In 2020, due to the COVID-19, we had to postpone the competition for our awards.

In 2021, funding was attributed to Victoria Tait for her project titled: "Carbon and Nitrogen Stable Isotope Analysis of Human Paleodiet at the Escape". She was awarded \$330. Adrián González Gómez de Agüero was also awarded \$500 for his project titled: "Liparoo".

## Armitage Archaeology Research Award

Armitage Archaeology Research Award was created with the generous donation from Christopher Armitage in 2018. Recipient(s) are selected each year from students, postdoctoral fellows and professors at Trent University. The award is given \$1000 per year for 5 years.

In 2018, Angela Evoy was awarded \$600 to support her research conducted at the Institute of History and Archaeology in Ulaanbaatar, Mongolia in December 2018. Cassandra Hamilton was awarded \$400 for her project titled: "Bone Grease Rendering in the Upper Paleolithic at the Vale Boi Site"

In 2019, Karl Racine was awarded \$500 to his project that focuses on African amphoras in the Mediterranean region. Svetlana Komarova was also awarded \$500 to support her project on investigates regional variations in carbon and nitrogen stable isotope values in Early Bronze Age (1500-1000 BCE) Mongolia.

In 2020, due to the COVID-19, we had to postpone the competition for our awards.

In 2021, Tessa Grogan was awarded \$700 for her project titled: "Assessing the Impact of Plant and Insect Dyes on the Stable Isotope Compositions of Textile Fibers". Julian Hirsch was also awarded \$300 to support his experimental project on reconstructing use-wear patterns in Bronze Age beads from Jordan.

## Funding Successes

### Jennifer Birch

2017 NSF Senior Research grant for "Establishing a High Resolution Framework for Age Determination" (\$200,764 USD)

### James Conolly

2018 SSHRC Insight grant for analysis of economic, subsistence and land use history in the Kawartha Lakes (\$196,644)

2019 Canadian Foundation for Innovation grant for underwater remote sensing and survey infrastructure (\$316,828)

2021 SSHRC Insight Development grant in support for deep-water survey of inundated landscapes (\$42,036)

### Laure Dubreuil

2019 SSHRC Insight grant for "Investigating the transition to agricultural societies in the Southern Levant through the study of ground stone tools" (\$79,980)

### Paul Duffy

Pending NSF Senior Research grant for "Prehistoric Pathways to Sustainable Growth: Comparative Trajectories of Settlement Nucleation during the Neolithic and Bronze Age on the Great Hungarian Plain". (\$273,231 USD)

### Rodney Fitzsimons

2018 SSHRC Explore grant for "Stavromenos Ceramic Study" (\$5,035)

2018 Institute for Aegean Prehistory grant for "The Azoria Project". Co-investigator (Principal Investigator, D.C. Haggis, University of North Carolina at Chapel Hill) (\$30,000 USD)

2019 Bagnani Trust grant for "Khavania Topographical and Architectural Mapping Project" (\$4,000)

2019 SSHRC Explore grant for "Khavania Topographical and Architectural Mapping Project" (\$5,290)

2019 Institute for Aegean Prehistory grant for "The Azoria Project". Co-investigator (Principal Investigator, D.C. Haggis, University of North Carolina at Chapel Hill) (\$60,000 USD)

2020 Bagnani Trust grant for "Khavania Hinterland Archaeological Project" (\$20,000)

### William (Bill) Fox

2021 Symons Trust grant for the "Elliott Villages Publications" project (\$3,000)

### Helen Haines

2021 SSHRC Trent Explore grant to "Accomplish the great tasks by a series of small acts": LiDAR survey of an ancient Maya site at risk of development. (\$7,000)

2021 SSHRC Trent Explore grant for "Thus Fares it still in our decay': Exploratory dental calculus SEM study to determine feasibility of ancient Maya paleodiet studies at Ka'kabish, Belize". (co-investigator with Jennifer Newton [PI], and Jocelyn Williams [Co-I]). (\$2,324)

### Lisa Janz

2018 National Geographic Foundation Basic grant to support "Tamsagbulag: Frontiers in Sedentism and Domestication" (\$32,070 USD)

2018 Office of Research and Innovation (Trent University) grant for "Interaction in the Circumpolar Pacific Sphere: 5000 BC to AD 1" (\$3000)

2018 SSHRC Connections grant to support "Interaction in the Circumpolar Pacific Sphere: 5000 BC to AD 1" (\$12,300)

- 2019 Symon's Trust (Trent University) grant to support translation of articles for "Circumpolar Archaeology" edited volume of World Archaeology (\$1,500)
- 2019 TUARC Research Support to aid translation of articles for "Circumpolar Archaeology" edited volume of World Archaeology (\$500)
- 2019 The Wenner-Gren Foundation Post-Doctoral Research grant to support "Frontiers in Sedentism and Domestication" (\$19,973 USD)
- 2020 SSHRC Insight grant to support "Frontiers in Sedentism and Domestication" (\$399,521)

**Paul Szpak**

- 2016 CRC Tier II Canada Research Chair in Environmental Archaeology ongoing operating fund. (\$260,000)
- 2017 CFI John R. Evans Leaders ongoing fund. (\$122,275)
- 2018 Independent Research Fund Denmark grant for project entitled "Genomic response of bowhead whales to past, present and future climate change" (co-investigator with Eline Lorenzen) (\$5,500)
- 2019 SSHRC Insight grant for "Identifying Intensification in Prehispanic Andean Agropastoral Systems" (co-investigator with Jean-Francois Millaire) (\$313,001)
- 2020 SSHRC Insight Development grant for "Life Histories of Wichita Ancestors" (co-investigator with Jennifer Raff) (\$69,459)
- 2020 NSERC Discovery grant for "Exploring Long-Term Variation in Arctic Marine Ecosystems through Stable Isotope Analysis and Fatty Acid Biomarkers". (\$168,000)
- 2020 NSERC Launch Supplement grant for "Exploring Long-Term Variation in Arctic Marine Ecosystems through Stable Isotope Analysis and Fatty Acid Biomarkers" (\$12,500)

**Sarah Stewart**

- 2017 SSHRC Insight grant for ongoing project "Revealing Neolithic Landscapes in Cyprus and Jordan". Co-Investigator (Principal Investigator, E.B. Banning, University of Toronto) (\$142,779)
- 2020 SSHRC Insight grant for project entitled "Large and Small Things Forgotten: Scale and Visibility in Epipalaeolithic Cyprus and Neolithic Jordan". Co-Investigator (Principal Investigator, E.B. Banning, University of Toronto) (\$224, 875)

**Jocelyn Williams**

- 2018 SSHRC Insight grant for the project "Mummies as Microcosms: The Bioarchaeology of the Inka Occupation of Peru" (\$281,594)

**Financial Summary (May 2021 – September 2021)**

	Out	In	
<b>Opening Balance as of May 2021</b>			<b>10,542.16</b>
<b>Pacbitun</b>		38.10	
<b>Armitage Fund</b>	143.60		
<b>Donation (Armitage)</b>		166.24	
<b>Shipping</b>	16.34		
<b>Sub Total</b>	159.94	450.34	
<b>Closing balance</b>			<b>11,748.36</b>

## Current TUARC Research Fellows (n = 37)

<b>Trent Faculty</b>	<b>Canadian Fellows</b>	<b>International Fellows</b>
James Conolly	Ian Begg	Jennifer Birch
Laure Dubreuil	Marc Blainey	Daniel Rafuse
Hugh Elton	Susan Dermakar	James Stemp
Rodney Fitzsimons	Paul Duffy	Teresa Tremblay
William Fox	Laura Gagne	
Helen Haines	Jaime Ginter	
Paul Healy	Jackson Lawrence	
Eric Guiry	Robert MacDonald	
Gyles Iannone	Alec McLellan	
Lisa Janz	Marit Munson	
Anne Keenleyside	Suzanne Needs-Howarth	
Jennifer P. Moore	Robert Pearce	
Eugène Morin	Jeffrey Seibert	
Jennifer Newton	Sally Stewart	
Paul Szpak	Leigh Symonds	
John Topic	Theresa Topic	
Jocelyn Williams		



## Research Activities by TUARC members

### Ian Begg

In 2019, I was published in the proceedings of a conference held in Venice in 2017 on the working relationship of the Director of the Italian excavations at Tebtunis, Egypt, Carl Anti, and his Field Director, Gilbert Bagnani during the 1930s. And at the annual conference in April 2019 of the American Research Centre in Egypt (ARCE) in Alexandria, Virginia, I presented a paper, jointly co-authored with my Italian colleagues, on the ancient Graeco-Roman irrigation canals around Tebtunis in the Fayyum basin of Egypt. We incorporated satellite data as well as archival material scattered from Trent and the Art Gallery of Ontario to Venice and Padua.

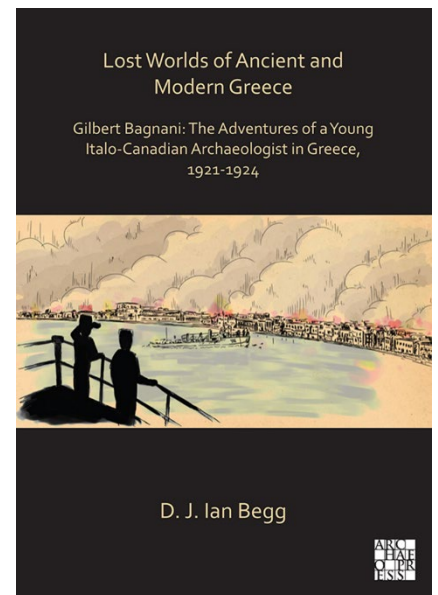
When I attended the annual conference of the American Institute of Archaeology (AIA) held in Washington in January 2020, I never dreamed it would be my last actual conference. In April 2020 I was scheduled to present a paper jointly written with my Italian colleagues about a Pan flute in the Padua Museum lacking any excavated provenance. This ARCE conference, however, was cancelled in late March and pivoted to a virtual conference within three weeks and I quickly had to get up to speed to present the documentation from the Bagnani Archives at Trent online. And after twenty years of editing and producing a semi-annual twelve-page Bulletin for the Canadian Institute in Greece (CIG), I retired with my last issue in December of 2020. In November, my book on the three years spent by the late Trent Professor Gilbert Bagnani as an archaeology student in Greece was published by Archaeopress in Oxford. The second volume in the projected trilogy will encompass the late 1920s when Gilbert and his fiancée Stewart Houston traveled separately around Europe and Canada. The third volume will present their excavations at Tebtunis during the 1930s before they moved to Canada. The research for this third volume is well underway as over the past decade I have presented many papers and published many articles co-authored with my Italian colleagues on these Egyptian excavations. The Trustees of the Gilbert and Stewart Bagnani Endowment Trust contributed a subvention to Archaeopress to cover some of the costs of the publication.

Finally, thanks to the pandemic and Zoom, I have been able to attend many international academic conferences and webinars otherwise inaccessible to me. These have been organized by the American School of Classical Studies at Athens (ASCSA), the Archaeological Institute of America (AIA), the Association for the Study of Travel in the Near East (ASTENE), the British School at Athens (BSA), the Canadian Institute in Greece (CIG), the Society for the Study of Egyptian Antiquities (SSEA), the Toronto Society of the AIA, among others.

### Jennifer Birch

Jennifer Birch's primary research activities over the last three years have focused on her NSF-funded "Dating Iroquoia" project. This ongoing work is developing independent radiocarbon-based age estimates for Iroquoian village sites and sequences in Ontario, New York, and Quebec. Over the last year, she has been invited to share this work through lectures to audiences as far away as St. Petersburg, Russia. The project has also been featured in American Archaeology magazine and The SAA Archaeological Record. Her most recent fieldwork, conducted in 2018 with Parks Canada involved geophysical survey and targeted excavations at the Spang site in the Rouge National Urban Park. She currently serves as editor for the Society for American Archaeology Press, and in 2021, she was awarded the Richard B. Russell Award for Excellence in Undergraduate teaching by the University of Georgia.

### James Conolly



James Conolly has been involved in a number of field and lab-based projects since 2018. Notable among these are his ongoing SSHRC sponsored fieldwork in the Kawarthas, which has included two seasons of major excavations at the historic Nassau Mills, as well as targeted geoarchaeological survey and documentation of underwater cultural material within the Treaty 20 areas of the Kawarthas. He has received funding from the Canadian Foundation for Innovation for research infrastructure to support an expansion of underwater survey and remote sensing in the Great Lakes, and in 2021 received a new SSHRC grant to develop methods for deep water survey of inundated cultural landscapes. Since 2018, he has supervised thirteen graduate students successfully to completion, and currently supervises or co-supervises three MA and three PhD students. Alongside this he has maintained collaborations with colleagues in related research areas and in 2019 was elected Fellow of the Society of Antiquaries (FSA).

### **Laure Dubreuil**

Laure is currently working on a SSHRC Insight grant supported project titled “Investigating the transition to agricultural societies in the Southern Levant through the study of ground stone tools”. This project aims to explore changes in food practices during the transition from foraging to farming, and their implications in terms of social organization and symbolism. Reconstitution of food practices based on the study of ground stone was recently discussed in two papers focusing on sites dating from the Pre-Pottery Neolithic period (Kfar Hahoreh and Beisamoun). Another recently published paper (PlosOne in 2019) presents compelling evidence that intentional breakage of ground stone tools was part of the repertoire of ritual practices during the Natufian period.

Laure also collaborated in two studies published in 2021 examining the development of ground stone technology in the Levant during the Middle Paleolithic period.

She is a member of the scientific team at the Natufian site of Nahal Ein Gev II directed by Leore Grosman (Hebrew University) and was able to take part in the fieldwork during 2018 and 2019. She is also a member of the scientific team for a project co-directed by Lisa Janz (University of Toronto) aimed at understanding diet choice in the Gobi Desert of Mongolia and China between 8000 and 3000 years ago. Functional analysis of ground stone tools from the Gobi Desert has been presented in two papers, one of which was written in collaboration with Angela Evoy, a former Trent graduate student.

### **Paul Duffy**

Paul was an active lecturer at Trent until 2019. He has since returned to focus primarily on research in European prehistory, from the Mesolithic occupation of the Carpathian Basin in southeastern Europe, and the movement of the first farmers through Serbia and the Great Hungarian Plain, to the emergence of hierarchical societies in the Bronze Age. During the past two years he has also reported on excavations directed on the University of Toronto campus that yielded finds from the late 1800s and early 1900s during field methods courses.

In early 2019, Paul and several field school students and colleagues from his National Science Foundation funded project in Hungary presented their research at the Society for American Archaeology annual meetings in Albuquerque, NM, detailing their excavation at a Bronze Age cemetery. This work was also published in *Antiquity* (2019), *Minerals* (2021), *Journal of Anthropological Archaeology* (2019), and *PLOS One* (2020). From 2019 to spring of 2021 Paul worked as a research scientist for the “On the Move: Mobility and the Spread of Agriculture in Eurasia” project at the Italian Academy for Advanced Study in America, Columbia University. This research was presented at conferences in San Francisco (SAA) and Toulouse, France (Meso ‘2020), with the analyses still ongoing.

From summer 2021, and until 2026, Paul has accepted a position working at the Roots Cluster of Excellence at Christian-Albrecht University in Kiel, Germany. Here he will continue his work studying the emergence of social inequality in the Bronze Age of Eastern Europe, and its relationship to changes in metallurgy, trade and agricultural production. Some of this work has already been presented during the past three years at conferences in Kiel and Schleswig, Germany.

### **Hugh Elton**

Hugh has been active in editing and publishing over the last four years, as presented below.

## Rodney Fitzsimons

Since the last TUARC Newsletter in 2018, Rodney D. Fitzsimons has been engaged in a number of research projects that have to date resulted in six publications and eight presentations in six countries. The oldest of Professor Fitzsimons' research projects is associated with his work as site architect on the Azoria Project, an interdisciplinary endeavor directed by Donald C. Haggis (University of North Carolina at Chapel Hill) with two principal goals: to analyse the social, political, economic and religious factors that governed the processes of state formation and urbanisation in the Early Iron Age and Archaic (ca. 1200-480 BC) periods of the Aegean (Greece), and to re-evaluate current interpretive frameworks and develop new models of urban social organisation by integrating archaeological, historical, and environmental data ([www.azoria.org](http://www.azoria.org)). Professor Fitzsimons' research with the Azoria Project focuses in particular on the physical aspects of urbanisation, that is, how the new economic, social, and political relationships in the nascent city are reflected in, and in turn influence, the built environment. One article on this topic, co-authored with the project director, appeared in the new archaeological journal, *Pelargos*, in 2020 (Haggis and Fitzsimons 2020a), shortly after Fitzsimons delivered a preliminary version of it at a conference titled *Σχήματα: La città oltre la forma. Per una nuova definizione dei paesaggi urbani e delle loro funzioni: urbanizzazione e società nel Mediterraneo pre-classico* that was held in Syracuse, Italy, in 2020 (Haggis and Fitzsimons 2020b). He also presented various aspects of his ongoing research program at Azoria to more public audiences at Dalhousie University and the University of Catania in 2019 (Fitzsimons 2019c; Fitzsimons 2019d).

Professor Fitzsimons also serves as the co-director for two additional projects. The first, the Ayia Irini Northern Sector Archaeological Project, co-directed by Dr. Evi Gorogianni of the University of Akron, seeks to elucidate further the dynamic nature of the sociopolitical and economic landscape of the Late Bronze Age Aegean at the intra-site, inter-site, and regional levels by analysing previously unpublished material from the Northern Sector of Ayia Irini on the island of Kea. Fitzsimons and Gorogianni have already published three articles and delivered ten papers on their research and are currently in the process of preparing the project's final publication.

The second project, the Khavania Archaeological Project, is co-directed with Dr. D. Matthew Buell of Concordia University and is in its infancy. The primary goals of this project are twofold: (i) to explore urban development and sociopolitical change at what is clearly a major, yet previously undocumented, Minoan (ca. 3000-1200 BC) harbour settlement (the first identified in the region) and (ii) to examine local, East Cretan, and broader, island-wide, sociopolitical, economic, and ideological relationships through the entirety of the Bronze Age. To date, Fitzsimons and Buell have published one brief report (Fitzsimons and Buell 2019a) and delivered three papers (Fitzsimons and Buell 2019a; Fitzsimons and Buell 2019b; Buell and Fitzsimons 2021; Fitzsimons and Buell 2021), with three additional articles in various stages of preparation. They hope to initiate a new phase in this project in the summer of 2022 by commencing a three-year



*The site of Khavania (Crete), from the north, with the Khavania Archaeological Project team hard at work clearing the architectural remains*

excavation program at the site, to which Trent undergraduate and graduate students will be invited to participate.

Finally, Professor Fitzsimons has been continuing his research into the relationship between labour investment, socio-political organisation, and state formation in Bronze Age Greece, having published two articles (Fitzsimons 2019b; Fitzsimons 2020) and delivered two conference papers on the topic (Fitzsimons 2018b; Fitzsimons 2018c). In addition, he also published a chapter on Bronze Age Greek architecture in the Royal Institute of British Architects' Sir Banister Fletcher's Global History of Architecture (Fitzsimons 2019a), as well as one on the architectural remains in Building A:2 at the Early Iron Age (ca. 1200-1100 BC) site of Halasmenos on Crete (Fitzsimons 2018a).

### **William Fox**

In 2018, Bill assisted Lisa Janz in her research concerning Gobi Desert Pleistocene and Holocene hunter-gatherer land-use in eastern Mongolia by undertaking a preliminary survey of toolstone sources. Fifty-two sites were visited and hand specimens were collected from 29 of these during four weeks of survey. Twenty-two specimens exported to Canada for study have been thin sectioned and geo-chemically analyzed for characterization and identification.

During the return to Canada, Incipient Jomon bifaces from the Maedakochi site were recorded at the Tokyo Municipal Museum, courtesy of the Ministry of Education, Culture, Sports, Science and Technology, Archaeological Administration.

Later, in November, a paper entitled "Certain Stone Pipes Among the Neutral Iroquois" was presented at the Eastern States Archaeological Federation annual meeting in Watertown, NY, focusing on geochemical characterization of vasiform pipes manufactured from steatite derived from the Frontenac Axis. Co-author Brandi MacDonald undertook the analysis at the University of Missouri Research Reactor, while sourcing fieldwork was supported by staff of the Ontario Geological Survey (OGS). Additional ge archaeology fieldwork connected with this project has been accomplished with the support of OGS staff over the last three years, while additional geochemical analysis has been performed by Brandi up until 2020 on vasiform pipes held by the Royal Ontario Museum (Neutral Iroquois) and Rochester Museum & Science Centre (Seneca Iroquois).

Projects undertaken in concert with the Huron-Wendat of Wendake have included repatriation negotiations with SUNY Oswego concerning the return of human remains exhumed from a sixteenth century village in the Kawarthas during a 1970 field school and several attempts to locate J.C. Taché's massive "Musée huron" collection at the Musée de la Civilisation in Quebec City. Despite the fact that Taché had excavated 16 Huron/Wendat ossuaries and several village sites between 1850 and 1855, little relevant material was located at the Quebec City facility; however, later research has indicated that a Msgr. JCKC La Flamme of Laval donated Huron/Wendat artifacts and human remains to the Smithsonian National Museum of Natural History in 1906. Additional pre-pandemic research initiatives relating to 17th century Indigenous communities have included the continuing study of Neutral Iroquoian collections held by the Smithsonian National Museum of the American Indian, Canadian Museum of History and Royal Ontario Museum, the Wray Seneca Iroquois collections at the Rochester Museum & Science Center, and "Iroquois du Nord" bead assemblages held by the Royal Ontario Museum, resulting in a number of publications.

Most recently, research has been focused on AMS dating of early Late Woodland village sites in southwestern Ontario; as well as a project to rectify recent revisions to Ontario Iroquois chronology through AMS dating of sites securely dated to the period 1630-1650. Finally, access to my Ontario Ministry of Culture and Communications collections at the Museum of Ontario Archaeology in London has permitted 18 days of research on the Elliott villages material over the last four months. A series of reports has been initiated on these "backlogged" collections through the OAS London chapter newsletter. Other pandemic era initiatives have included communications with fellow Ontario Marine

Heritage Committee members and Scott Hamilton at Lakehead University concerning the underwater distribution of Archaic Period native copper gaffs in the Lake Superior Basin and also a “new” dugout canoe find in a southern Ontario lake; as well as the potential for Indigenous organic artifact discoveries in the marshes of Long Point Bay, Lake Erie. Communications with Colombian and Dutch underwater archaeologists were also initiated regarding Late Glacial Maximum shell middens off the Caribbean south coast. Finally, some enjoyment was derived from orchestrating an article published this year in the Mammoth Trumpet magazine, introducing Canadian evidence regarding fluted point hunters travelling the “wrong way” in the famous ice-free corridor.



## Helen Haines

Despite having to cancel research in Belize after the summer 2019 field season, Helen R. Haines, was able to complete two lab-based research projects and initiate another project as part of her Ka'kabish Archaeological Research Project (KARP). The KARP Trent-based research was conducted under the recently launched Ka'kabish Archaeology Research Lab (KARL); <https://www.trentu.ca/anthropology/faculty-research/kakabish-archaeological-research-project-karp>. Additionally, in 2021 she laid the foundations for a Durham-campus based field school. This work was accomplished thanks to the Research Office and Scott Hamilton, Dean of Durham Campus, approving her Lab Management Plan and granting permission to re-open on-campus lab space.

One of the most significant research projects completed in 2020 was undertaken in collaboration with Dr. Jennifer Newton (LTA-Assistant Professor). With funding from the Trent Summer Work Experience Programme (TSWEP), we were able to hire Mr. Devon Howell to conduct a detailed cataloguing and preliminary analysis of the teeth from a collection of Post-Classic Maya mortuary deposits and burials from Ka'kabish (<https://www.trentu.ca/news/story/28527>). Due to the cancellation of our Belize field season in 2021, this work subsequently became the foundation for Mr. Howell's MA thesis under the direction of Jennifer Newton and Jocelyn Williams. We secured an internal SSHRC Trent Explore Grant for CND\$2,324 to fund an exploratory dental calculus SEM study to determine feasibility of ancient Maya paleodiet studies at Ka'kabish, Belize. This work was undertaken by Mr. Howell at the Advanced Analysis Center Electron Microscopy Unit at Guelph University under the supervision of Elyse Roach. The results of which will be presented in his MA thesis which is currently in progress.

In the spring of 2021, Helen R. Haines was invited to participate in the National Centre for Airborne Laser Mapping (NCALM) Collaborative Belize Campaign. This campaign, through bringing together a host of researchers working in Belize, significantly lowers the cost of LiDAR collection. Working with NCALM and TUARC member Dr. Alec McLellan, this project will obtain LiDAR data over two sites in the Ka'kabish-Lamanai corridor: Ka'Kabish and Coco Chan. At Ka'kabish, which forms the primary focus of Haines' Belize field research, the area to be surveyed will include the known southern forested zone as well as the northern forest which has yet to be fully investigated along with sections of the cleared fields to the east and west of the site which house residential mounds. Initial investigations at Coco Chan, which is located midway between Lamanai and Ka'kabish, were started during the 2019 KARP field season. This work, which is documented in the KARP 2019 Field Report (<https://www.kakabish.org/field-reports.html>) formed the first substantial investigation of the site. The LiDAR survey will encompass both the forested core area of the site as well as a large area to the east which is still under forest coverage and has not been investigated. Haines secured an internal SSHRC Trent Explore Grant for

CND\$7,000 to help fund this research. The LiDAR survey zones are expected to form the basis for future MA students' theses.

Our problems in identifying the relationships between these three sites, Ka'kabish, Coco Chan, and Lamanai, formed the basis for a presentation at the Wayeb 2020 European Maya Conference by Haines and colleagues. Although the conference was hosted by colleagues at the University of Warsaw, the presentations were all on-line.

Haines and colleagues also published more detailed information about the history of Ka'kabish, and its relationship to sites in the surrounding region, in the 2020 Research Reports in Belizean Archaeology and in a chapter in Morton and Peuramaki-Brown's edited volume *Seeking Conflict in Mesoamerica*.

During the summer of 2021, Haines secured funding from the Trent Summer Work Experience Programme (TSWEP) to hire a student to create a Master Database for KARP. This project entailed reviewing the existing MExcel files and, where necessary, entering missing artefact data to bring the files up-to-date. Once the data was verified, additional files with different levels of information were created for each type of material (ceramic, lithic, obsidian, jade, etc.). The final stage of this project involved importing and linking these data files in MSAccess to create a database of all artefacts recovered from Ka'kabish. This database will greatly assist with future publications and MA research projects.

Additionally in 2021, Haines worked with Robert Ballarin, Trent Facilities Management Project Manager, and Dean Henderson, to create a field school on a property newly acquired by the Durham Campus. This property, which was once part of a larger lot associated with a late-1800s house immediately to the north, contains a bank-barn dated to the late 19th century. The field school, along with providing Trent students with experiential learning, also instructed them in the Standards and Guidelines issued by the Ministry of Heritage, Sport, Tourism and Cultural Industries (MHSTCI), and which govern archaeology in Ontario. Due to time constraints the initial Stage 1 report (historical assessment) was conducted by AS&G Archaeological Consulting, while the subsequent Stage 2 (test pitting) and Stage 3 (initial excavation) were conducted by 14 Trent University students (<https://www.trentu.ca/news/story/30641>). While the permit and Stage 2 work was supervised by Haines, the Stage 3 work was supervised by Jennifer Newton. This work revealed that while the area to the south of the barn was virtually sterile, the area along the northern edge of the property yielded a wealth of artefacts dating from the middle and late 19th century. Due to the proximity of the property line to the back of the historic house, it is surmised that the midden, originally associated with the 19th century occupation is now on Trent property. Consequently, additional field schools on the Durham campus are planned for future years.

### **Paul Healy**

Paul F. Healy, who retired from Trent in 2013, completed several research publications dealing with the archaeology of the ancient Lowland Maya (Belize), Lower Central America (Honduras), and the Caribbean (Antigua). Details on the publications are listed below.

Professor (emeritus) Healy completed two book chapters for an edited volume (Powis, Skaggs, and Micheletti, 2020) titled *Archaeological Reconstruction of Ancient Maya Life at Pacbitun, Belize* (BAR, Oxford). One chapter serves as a volume introduction to the more than one decade long history of archaeological research at Pacbitun, directed by Healy and Trent University. The second chapter, co-authored, deals with the known examples of Maya hieroglyphic texts from Pacbitun, including possible new identification of a Late Classic period (CE 600-900) Pacbitun king. The BAR volume is dedicated to Healy by the editors.

Additional recent research dealt with the DNA analysis of hundreds of prehistoric guinea pig remains from the Caribbean area. Healy contributed guinea pig faunal remains from his excavations on the island of Antigua, in the Lesser Antilles. The research, published by multiple co-authors, was published (2020) in *Nature: Scientific Reports*. The article provides crucial insights into the probable centre of domestication of these valuable, edible rodents, and their remarkable distribution in antiquity in the Americas and beyond using DNA data.

Finally, Healy and former Trent graduate student, Daniel Savage, have recently published an article on ancient lithics by Healy from NE Honduras (the artifacts are now housed in the Cambridge University Museum of Archaeology and Anthropology in England). The analysis examines micro-use wear, function, and chronology of the lithics. The co-authored article is published (online) in the Journal of Lithic Studies (2021).

### Lawrence Jackson

I am currently writing up research on a new Rice Lake Palaeo-Indian site and finishing a manuscript on Rice Lake Vinette 1.



*Pseudo-scallop shell Middle Woodland vessel showing left oblique rim and horizontal body decoration. Associated with AMS date of circa cal 5 B.C.*

### Lisa Janz

Since 2018, I have moved between being the Roberta Bondar Post-doctoral Fellow of Northern and Polar Studies at Trent University's Frost Centre for Canadian and Indigenous Studies, Research Facilitator in Trent's Office of Research and Innovation, and now Assistant Professor of Anthropology at the University of Toronto, Scarborough. These shifting roles, combined with the pandemic, slowed my ability to join my colleagues doing fieldwork in Mongolia, but our Mongolian team was still able to carry on fieldwork in the summers of 2019 and 2021, funded in part by a Post-PhD Research Grant from Wenner-Gren and a new five-year SSHRC Insight Grant. At the end of 2018, in my role as Bondar Post-doc, I organized an international symposium on Circumpolar Pacific Interaction, sponsored by a SSHRC Connections grant and Trent University. We were able to draw researchers from Canada, the United States, and Russia. Academic output from this symposium was published as an edited volume of World Archaeology, and we were able to acquire support from TUARC and from Trent's Symon's Trust to cover the cost of translation from Russian to English for one important article which traced the spread of metallurgy and metal working technology into the Russian and American Arctic.

My Mongolian research program is thriving thanks to funding from the National Geographic Society, Wenner-Gren, and SSHRC, and collaborative supervision of Trent University MA students who have been investigating use wear and isotopes under the guidance of Drs. Laure Dubreuil, Paul Spzak, and Jocelyn Williams. Some of the first peer-reviewed results were published in Access Archaeology (Dubreuil et al. ND) and Quaternary International (Janz et al. 2020), with several others in preparation. Findings from our four years of fieldwork at Zaraa uul, including excavation of a new Early Upper Palaeolithic site called Otson tsokhio, have recently been published in PLOS ONE (Janz et al. 2021). Some of the preliminary findings of our work at Tamsagbulag are also synthesized within the scope of large-scale changes in land-use in East Asia. This new Antiquity article (Zhao et al. 2021) was co-authored with Chinese academic, Dr. Chao Zhao, School of History and Civilization, Shaanxi Normal University, and discusses how Holocene climatic amelioration contributed to sedentism across the Mongolian Plateau. Zooarchaeological analysis of remains from 2018 are now nearly complete and a new series of excavations in 2021 has provided a wealth of new data to study. Our Mongolian team excavated two new dwelling sites and discovered a range of artifacts and faunal remains, including bone tools, multiple hearths and a bear skull from the inside of one dwelling. Using drone photography and Zoom, we were able to collaborate with geoarchaeologists Dr. Karen Milek (Durham University) and her PhD student Marz Zhe Ma to collect sediment samples for sediment micromorphology, lipid biomarkers, and

phytolith analysis. These studies will contribute to the goals of my SSHRC IG project, which is exploring the intensive use, and possible management of aurochs at this site which appears to have been occupied year-round for several hundred years. The preliminary findings were reported virtually at the 85th Annual SAA meeting this past April.

### **Alex McLellan**

London (UCL) in 2020, completed a publication dealing with the archaeology of the ancient Lowland Maya sites of Lamanai, Ka'Kabish, and Coco Chan, in Northern Belize. The publication, titled *Settlement Change, Urbanism, and Human and Environment Interaction at Lamanai and Ka'Kabish* (BAR, Oxford), was a culmination of over a decade of archaeological research, spanning seven field seasons, as part of the Ka'Kabish Archaeological Research Project (KARP), at Trent University, and the Lamanai Archaeology Project (LAP), at University College London.

Early in 2021, Alec McLellan was invited to participate in the National Centre for Airborne Laser Mapping (NCALM) Collaborative Belize Campaign. The project, a collaboration of researchers across Belize, will obtain LiDAR data for two sites that have undergone years of archaeological investigation: Ka'Kabish and Coco Chan. The LiDAR survey will serve as a springboard for future research on the identification and preservation of low-lying residential structures, which are commonly missed in digital and archaeological surveys.

In the summer of 2021, Alec McLellan was chosen to co-lead the University of Toronto field school on a property slated for development adjacent to Harbord Street and Spadina Avenue. This property, which housed several derelict structures from the late-1800s, provided students with an opportunity to survey and excavate according to the Standards and Guidelines, issued by the Ministry of Heritage, Sport, Tourism and Cultural Industries (MHSTCI). The results of this project will be published as a Stage 2 and Stage 3 report by the end of the year.

### **Eugène Morin**

Eugène Morin, who became full professor in June 2021, has continued his work on bone processing, hunting efficiency, Paleolithic subsistence and archaeozoological methods (see list below). He has also resumed his fieldwork in France after an interruption in 2020 caused by the pandemic.

This summer, Eugène examined faunal material from Gatzarria and Saint-Césaire, two important Middle-to-Upper Paleolithic transition sites in France documenting late Neandertal and early modern human occupations. In parallel, he published several papers focused on the evolutionary implications of small fast prey (e.g., rabbits and birds) exploitation during the Pleistocene. Contrary to the long-held view that Neandertals were mostly large game hunters, the analysis that he published in *Science Advances* with several co-authors indicate frequent consumption of rabbits by this population. This observation is significant because the broader diets observed in the northwestern Mediterranean region possibly provided the local Neandertal populations with a competitive advantage over other populations with narrower diets. To shed additional light on factors that influence diet breadth, Eugène also initiated an analysis of hunting payoffs in ethnographic contexts in collaboration with Rebecca Bliege Bird, Bruce Winterhalder and Douglas Bird. The results of these efforts, which were published in 2020 and 2021, show that prey body size is only weakly correlated with hunting payoffs, whereas other factors, such as the context of capture, appear to be as, if not more, important predictors of energy returns. This shift back and forth between archaeology and ethnography contributed to putting a smile on his face during these challenging covid times.

### **Suzanne Needs-Howarth**

Suzanne is an independent zooarchaeological consultant and researcher who works with animal bones from Indigenous sites as well as Euro-Canadian historic sites in the lower Great Lakes region. She is an





Associate at the University of Toronto Archaeology Centre and a member of its NE Archaeology Interest Group and its Zooarchaeology Interest Group. Suzanne continues to be involved in collaborative research on topics including taphonomy, methods, historical ecology, and human diet, with fellow TUARC members Eric Guiry (University of Leicester) and Paul Szpak (Trent University) and with other researchers in Canada and abroad, including Alicia Hawkins and Trevor Orchard (University of Toronto Mississauga); Louis Lesage (Bureau du Nionwentsio, Huron-Wendat Nation); and Thomas Royle (University of British Columbia).

### **Daniel Rafuse**

Dan, a TUARC member since 2016, completed several publications related to hunter-gatherer archaeology and taphonomy in the Pampas region of Argentina. This work is part of ongoing government funded projects in Argentina, including a newly approved project for 2020-2023 titled, "Actualistic Taphonomy in the Pampas Region: Contributions for the interpretation of the regional archaeological record", where Dan participates as a collaborator with 6 other team members (Nahuel Scheifler, Agustina Massigoge, Cristian Kaufmann, Mariela González, María Gutiérrez, and María Clara Álvarez).

Finally, Dan continues his teaching at the Universidad Nacional del Centro de la Provincia de Buenos Aires, Olavarría, Argentina; and is currently Assistant Editor of the journal *InterSecciones en Antropología*.

### **Jeff Seibert**

Jeff is employed as a regional archaeologist with the Ontario Ministry of Transportation (MTO), and with his colleague Denise McGuire, has published a short article in *Arch Notes* (the newsletter of the Ontario Archaeological Society) which serves as a guidance piece for how to effectively use engineering drawings as part of Stage 1 archaeological assessments for road expansion and rehabilitation projects. This has drawn on their professional experience working on archaeological projects associated with linear infrastructure projects.

Jeff also has an article that has been accepted for publication in the upcoming issue of *Ontario Archaeology*, which details investigations that he led at the site of an early 19th century Naval Hospital at Point Frederick, Kingston. This is now the location of the Royal Military College of Canada.

In addition to these publications, Jeff has published a number of short book reviews in *Choice*, the trade publication of the Association of College & Research Libraries, and an academic book review in the *Canadian Journal of Archaeology*.

### **Sarah (Sally) Stewart**

An archaeologist with over 35 years experience on surveys and excavations in Cyprus, Greece, Alberta and Ontario, Sarah's research interests include Mediterranean prehistory, survey methodology, ethnoarchaeology, Canadian First Nations archaeology and 19th century life in southwestern Ontario.

She is currently the director of two archaeological field projects in Cyprus: "Tremithos Neolithic Survey" and "Ancient Seafaring Explorers of Cyprus" (with Alan Simmons, University of Nevada, Las Vegas; Lisa Maher, University of California, Berkeley; and Danielle Macdonald, University of Tulsa, Oklahoma), both funded by the Social Sciences and Humanities Research Council of Canada (SSHRC) and sponsored by TUARC. These



*Coastal Survey in Cyprus*

projects are investigating the archaeological evidence of the earliest settlers on the island and how they moved about and used key resources in their landscape. We are focusing on pedestrian survey in a major river valley in central Cyprus, and the coastal regions on either side of its delta. To date we have recovered evidence of a characteristic microlithic industry from sites, isolated findspots and chert sources that is typologically similar to epi-Paleolithic finds from elsewhere on the island, and which may represent early evidence of exploration from the coast into the resource rich hinterland.

Sarah is a research fellow at Trent University Archaeological Research Centre (TUARC), and The Archaeology Centre, University of Toronto. She is also a sessional instructor in the Anthropology Department at the University of Toronto where she has taught courses on Archaeological Field Methods, Physics and Archaeology, Near Eastern Prehistory and Lithic Analysis.

### **John and Theresa Topic**

John and Theresa Topic completed a variety of scholarly activities in the 2019-2021 period. In 2020 their co-authored book *En la tierra del oráculo de Catequil: Arqueología de Huamachuco antiguo* was published by the Fondo Editorial de la Universidad Católica del Perú as part of the series *Colección Estudios Andinos #27*. The book's 12 chapters consist of articles on research that the authors conducted in the Huamachuco area between 1981 and 2008, translated from English and French to be more accessible to Spanish readers. Some are co-authored with students who were pursuing Trent University graduate degrees at the time of original publication.

John Topic was discussant for "The Empire of the Ancestors Webinar Colloquium" held on May 7 & 8, 2021, sponsored by *Dumbarton Oaks*. He has been invited to write the introduction for the resulting volume to be published next year. He wrote the prologue for a publication by Luis Flores Prado, *El Niño Cordero: Ritual de Identidad y Resistencia* to be published in 2021.

### **Jocelyn Williams**

In the spring of 2018, my colleague Andrew Nelson and I were awarded a \$281,594 SSHRC Insight Grant for our project "Mummies as Microcosms: The Bioarchaeology of the Inka Occupation of Peru". That summer we travelled to Peru for our first field season where we examined mummies and took samples for stable isotope analysis. Our fieldwork team included students from Western University and Católica University in Lima; we travelled to numerous museums in Lima, Peru to examine mummies excavated from a variety of contexts dating to the Late Horizon (A.D. 1476-1532). Unfortunately, we have been unable to return to Peru since this season due to COVID restrictions; however,



*Research on Peruvian Mummies*

this research was the basis for a variety of conference presentations, an exhibit at the Pachacamac museum and one publication (see below). I also collaborated on a SSHRC explore grant with Helen Haines to fund Grant Smith's MA thesis research "Seeking the Food he Eats: A Comparative Examination of Post-Classic Maya Diet and Health at Ka'Kabish, Belize". Another important highlight was the conference session I co-organized with my colleague Sandra Garvie Lok celebrating the contributions of our PhD supervisor, M. Anne Katzenberg, on her retirement from the University of Calgary. Since 2018, I've supervised/co-supervised a total of five students, two of whom graduated in 2020. In 2019, I took on the role of director of Trent University's MA Anthropology program.

## Publications by TUARC members

### Ian Begg

2020 *Lost Worlds of Ancient and Modern Greece. Gilbert Bagnani: The Odyssey of a Young Italo-Canadian Archaeologist in Greece, 1921-1924.* Archaeopress, Oxford.

Bulletin of the Canadian Institute in Greece 43 Spring 2019

Bulletin of the Canadian Institute in Greece 44 Autumn 2019

Bulletin of the Canadian Institute in Greece 45 Spring 2020

Bulletin of the Canadian Institute in Greece 46 Autumn 2020

### Jennifer Birch

Birch, J.

2018 Iroquoian Archaeology. In *Encyclopedia of Global Archaeology*, Ed. C. Smith. Springer, New York. [https://doi.org/10.1007/978-3-319-51726-1\\_3106-1](https://doi.org/10.1007/978-3-319-51726-1_3106-1)

Birch, J. and V. Thompson, editors

2018 *The Archaeology of Village Societies in Eastern North America.* University Press of Florida, Gainesville.

Thompson, D., and **J. Birch**

2018 The Power of Villages. In *The Archaeology of Villages in Eastern North America*, Ed. J. Birch and V. Thompson: 1-19. University Press of Florida, Gainesville.

Birch, J. and R. Williamson

2018 Initial Northern Iroquoian Coalescence. In *The Archaeology of Villages in Eastern North America*, Ed. J. Birch and V. Thompson: 89-105. University Press of Florida, Gainesville.

Manning, S. and **J. Birch**, M. Conger, Mi. Dee, C. Griggs, C. Hadden, A. Hogg, C. Bronk Ramsey, S Sanft, P. Steier, E. Wild

2018 Radiocarbon Re-dating of Contact Era Iroquoian History in Northeastern North America. *Science Advances* 4: eeav0280 doi:10.1126/sciadv.aav0280

Jones, T. and **J. Birch**, R. Williamson, T. Abel, R. Speakman, L. Lesage

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Manning, S. and **J. Birch**, M. Conger, C. Griggs, C. Hadden

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2019 Archaeological reconnaissance through multi-method geophysical and geochemical survey at two Iroquoian village sites, southern Ontario, Canada. *Journal of Archaeological Science: Reports* 26: 101--188.

Hart, J. and S. Winchell-Sweeney, **J. Birch**

2019. An Analysis of Network Brokerage and Geographic Location in Fifteenth-Century AD Northern Iroquoia. *PLOS ONE* 14(1): e0209689. doi:10.1371/journal.pone.0209689

Clark, J. and **J. Birch**, M. Hegmon, B. Mills, D. Glowacki, S. Ortman, J. Dean, R. Gauthier, P. Lyons, M. Peeples, L. Borck, J. Ware

2019. Resolving the Migrant Paradox: Two Pathways to Coalescence in the Late Precontact U.S. Southwest. *Journal of Anthropological Archaeology* 53: 262-287.

Kowalewski, S. and **J. Birch**

2020 How Do People Get Big Things Done? In *The Evolution of Social Institutions: Interdisciplinary Perspectives*, Ed. D. Bondarenko, S. Kowalewaki, and D. Small: 29-50. Switzerland, Springer Nature.

Birch, J.

2020 Social Institutions and the Differential Development of Northern Iroquoian Confederacies. In *The Evolution of Social Institutions: Interdisciplinary Perspectives*, Ed. D. Bondarenko, S. Kowalewaki, and D. Small: 419-436. Switzerland, Springer Nature.

Birch, J. and L. Lesage.

2020 When Detachment is not complete: Emplacement and displacement in Huron-Wendat ancestral landscapes. In *Detaching from Place: A World Archaeology Perspective to Settlement Abandonment*, Ed. M. Lamoureux-St-Hilaire and S. Macrae: 45-62. University of Colorado Press, Boulder.

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Holland-Lulewicz, J. and M. Conger, **J. Birch**, S. Kowalewski, W. Travis

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Birch, J. and S. Manning, M. Conger, S. Sanft

2020 Introduction: Why are we Dating Iroquoia? Building Chronologies to Write Enhanced Archaeological Histories. *The SAA Archaeological Record* 20(4): 38-39.

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Conger, M. and J. Micon, **J. Birch**, L. Lesage

2020 Constructing Huron-Wendat Histories through Oral History and Scientific Advances. *The SAA Archaeological Record* 20(4): 57-61.

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2021 Conflict, Population Movement, and Microscale Social Networks in Northern Iroquoian Archaeology. *American Antiquity* 86(2): 350-367. <https://doi.org/10.1017/aaq.2021.5>

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**James Conolly**

Conolly J.

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Dudgeon T. and D. Rafuse, G. Burness, **J. Conolly**

2018 Faunal analysis of the Middle Woodland Rice Lake Serpent Mounds (BbGm-2) midden assemblage, Ontario. *Ontario Archaeology* 98: 84–107.

College S. and **J. Conolly**

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Jenkins D. and G. Yannic, J. Schaefer, **J. Conolly**, N. Lecomte

2018 Population structure of caribou in an ice-bound archipelago. *Diversity and Distributions* 2018: 1–17.

Szpak, P. and J. Savelle, **J. Conolly**, M. Richards

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Conolly, J. and M. Obie

2021 The Archaeology of Inundated Cultural Landscapes in Fresh water Lake Systems: Preliminary Insights from a Multi-Methods Study in the Kawartha Lakes Region, Ontario. *Journal of Maritime Archaeology* <https://doi.org/10.1007/s11457-021-09296-y>

Robinson, S. and **J. Conolly**

In press Compositional Variability in Middle and Early Late Woodland Pottery Fabrics from the Trent River Valley. *Ontario Archaeology* 100.

Ellis, C. and **J. Conolly**, S. Monkton

In press Dating the Late Archaic at the Davidson Site (AhHk-54), Ontario. *Midcontinental Journal of Archaeology*.

**Laure Dubreuil**

MacDonald, B. and W. Fox, **L. Dubreuil**, J. Beddard, A. Pidruczny

2018 Iron Oxide Geochemistry in the Great Lakes Region (North America): Implications for Ochre Provenance Studies. *Journal of Archaeological Science: Reports* 19: 476–90.

Dubreuil, L. and H. Ovia, R. Shahack-Gross, L. Grosman

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Bocquentin, F. and H. Khalaily, E. Boaretto, **L. Dubreuil**, H. Schechter, D. Bar-Yosef Mayer, H. Greenberg F. Berna, M. Anton, F. Borrell, L. Davin, N. Samuelian, J. Vieugué, L. K. Horwitz

2020 Between two worlds: The PPNB-PPNC transition in the Central Levant as seen through discoveries at Beisamoun. In Ed. H. Khalaily, A. Re'em, J. Vardi, and I. Milevski, *Mega Project at Motza (Moza): The Neolithic and Later Occupations up to the 20th Century*: 163-199.

Janz, L. and A. Cameron, D. Bukhchuluun, D. Odsuren, **L. Dubreuil**

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Paixão, E. and J. Marreiros, **L. Dubreuil**, W. Gneisinger, G. Carver, M. Prévost, Y. Zaidner

2021 The Middle Paleolithic Ground Stones Tools of Neshar Ramla Unit V (Southern Levant): A Multi-Scale Use-Wear Approach for Assessing the Assemblage Functional Variability. *Quaternary International*: S1040618221003359. <https://doi.org/10.1016/j.quaint.2021.06.009>.

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2021 - Vestiges lithiques: les roches autres que le silex – In Langlais and Laroulandie (eds), La grotte abri de Peyrazet (Creysse, Lot, France) au Magdalénien, pp., *Supplément à Gallia Préhistoire*, CNRS Editions.

Dubreuil, L. and N. Goring-Morris

In press Exploring food practices among the first agro-pastoral communities of the Southern Levant: the ground stone tool perspective. *Food & History*.

Dubreuil, L. and A. Evoy, L. Janz

In press The New Oasis: Potential of Use-wear for Studying Plant Exploitation in the Gobi Desert Neolithic. *Access Archaeology, Archeopress*.

### **Hugh Elton**

Haldon, J. and **H. Elton**, J. Newhard

2018 *Archaeology and Urban Settlement in late Roman and Byzantine Anatolia* (Cambridge: CUP, hardback and paperback)

Haldon, J. and S. Huebner, A. Izdebski, L. Mordechai, **H. Elton**, T. Newfield

2018 Plagues, climate change, and the end of an empire: A response to Kyle Harper's *The Fate of Rome*,

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(2): *Plagues and a crisis of empire*, *History Compass*. 16.12; e12506. <https://doi.org/10.1111/hic3.12506>

(3): *Disease, agency, and collapse*, *History Compass* 16.12; e12507. <https://doi.org/10.1111/hic3.12507>

Cassis, M. and **H. Elton**, O. Doonan, J. Newhard

2018 Evaluating Archaeological Evidence for Demographics, Abandonment, and Recovery in Late Antique and Byzantine Anatolia, *Human Ecology* 46.3: 381-398. <https://doi.org/10.1007/s10745-018-0003-1>.

Roberts, N. and M. Cassis, **H. Elton**, O. Doonan, W. Eastwood, J. Haldon, A. Izdebski, j. Newhard

2018 Not the end of the world? Post-Classical decline and recovery in rural Anatolia, *Human Ecology* 46.3: 1-18; <https://doi.org/10.1007/s10745-018-9973-2>.

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2019 *Asia Minor in the Long Sixth Century: Current Research and Future Directions* (Oxford: Oxbow Books)

Elton, H.

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2019 The countryside in Southern Asia Minor in the long sixth century AD in I. Jacobs and H. Elton, eds., *Asia Minor in the Long Sixth Century: Current Research and Future Directions*: 91-108. (Oxford: Oxbow Books)

Newhard, J. and **H. Elton**, J. Haldon

2020 Reflections on the Avkat Archaeological Project: collaborations, education, and dissemination, *Journal of Greek Archaeology* 5: 528-534.

Elton, H.

2021 Agricultural Decision Making on the south coast of the Black Sea in Classical Antiquity, in A. Coskun, ed., *Ethnic Constructs, Royal Dynasties and Historical Geography around the Black Sea Littoral*: 343-355. (Stuttgart, Franz Steiner Verlag)

## Rodney Fitzsimons

2018 The Architecture. In *Halasmenos: Building A:2*, Ed. M. Eaby: 43-56. Philadelphia: INSTAP Academic Press.

2019 Minoan Crete and Mycenaean (Greece), c. 2650-1190 BCE. In *Sir Banister Fletcher's Global History of Architecture*, Ed. M. Fraser: 110-134. 21st ed. London: Bloomsbury Publishing.

Fitzsimons, R. and D. Buell.

2019 The Khavania Topographical and Architectural Mapping Project 2019. *CIG Bulletin* 44: 6-9.

Fitzsimons, R.

2019 Constructing a Legendary Past: Possible Archaizing Elements in the Funerary Landscape of Late Bronze Age Mycenae. In *Mneme: Past and Memory in the Aegean Bronze Age. Proceedings of the 17th International Aegaeum Conference, Udine/Venice, Italy, April 17-21, 2018*, Ed. E. Borgna, I. Caloi, F. Carinci, R. Laffineur: 261-268. Aegaeum 43. Liège: Université de Liège.

2020 Crossing Thresholds and Building States: Labor Investment, Tomb Construction, and Early State Formation in the Bronze Age Argolid. In *Reconstructing Scales of Production in the Ancient Greek World: Producers, Processes, Products, People. Proceedings of the 19th International Congress of Classical Archaeology Cologne/Bonn, 22 – 26 May 2018*, Vol. 8. *Archaeology and Economy in the Ancient World*, Ed. E. Hasaki and M. Bendt: 17-38. Heidelberg: Heidelberg University Library.

Haggis, D. and **R. Fitzsimons**

2020 Civic Architecture and the Social Dimensions of the Built Environment in Archaic Crete. The Case of Azoria in the 6th Century B.C. *Pelargos* 1: 25-51.

## William Fox

2018 A Tale of Three Spoons. *Arch Notes Newsletter of the Ontario Archaeological Society* Vol. 23-3: 8-10.

2018 A Month in Mongolia. *Strata Newsletter of the Peterborough Chapter, Ontario Archaeological Society*. Vol. 8 No. 2: 2-6.

Pavlish, L. and K. Michelaki, J.-F. Moreau, R. M. Farquhar, **W. Fox**, L. M. Anselmi, C. Garrad, C. Walker, G. Warrick, D. Knight, S. Aufreiter, R. G. V. Hancock

2018 Tracing the Distribution of Late 16th and Early 17th Century European Copper Artefacts in Southern Quebec and Ontario, Canada; European copper artifacts in southern Quebec and Ontario. *Archaeometry* 60: 2-18.

MacDonald, B. and **W. Fox**, L. Dubreuil, J. Beddard, A. Pidruczny

2018 Iron Oxide Geochemistry in the Great Lakes Region (North America): Implications for Ochre Provenance Studies. *Journal of Archaeological Science: Reports* Vol. 19: 476-490.

Fox, W. and C. Heidenreich, J. Hunter

2018 Antiquarians and Avocationalists from Upper Canada to Ontario. *Ontario History* Vol. CX, No. 2: 63-75.

Engelbrecht W. and K. Allen, **W. Fox**, J. Herbstritt, J. Kwoka, W. Lenig, M. Sempowski

2018 Stone Disks in Iroquoia. *Iroquoia: The Journal of the Conference on Iroquois Research*. Vol. 4: 41-75.

Fox, W.

2021 Ash as an Agent of Transformation in Iroquoian Society. In *Agent of Change: The Deposition and Manipulation of Ash in the Past*: 156-170. Berghahn Books. New York City.



Leppar, B. and **W. Fox**, S. Thomson

2021 Yukon Site Yields Evidence of First Americans. *Mammoth Trumpet* 36(3): 1-4. College Station, Texas.

In press

Fox, W.

2021 The Elliott Villages (AfHc-2) – A Reintroduction *KEWA Newsletter of the London Chapter, Ontario Archaeological Society* 20-07 to 20-08.

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In press George Gustav Heye and His Looted Lake Medad Collection: An Allegory for All That Went Before in Ontario. *Ontario Archaeology* 100:

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Fox, W. and A. Hawkins, D. Harris

In press Drawing a Bead on the Iroquois du Nord Narrative. *The Seventeenth Century Iroquois du Nord: History, Archaeology, and the Search for the Villages*. Ed. R. Von Bitter and R. Williamson. Chapter 8. Mercury Series Archaeology Paper. Published by University of Ottawa/National Museum of History.

### **Helen Haines**

Haines, H. and K. Sagebiel.

2019 “When We Two Parted”: Remaking the Ancient Maya Political Landscape of North-Central Belize. In *Seeking Conflict in Mesoamerica: Operational, Cognitive, and Experiential Approaches*, Ed. S. Morton and M. Peuramaki-Brown: 101-121. University Press of Colorado, Boulder.

Haines, H. and K. Sagebiel, A. McLellan

2020 The Beginning to the End and Over Again: An Overview of the Occupation History of Ka’kabish, Belize. *Research Reports in Belizean Archaeology*, vol. 17: 45-56.

Sagebiel, K. and **H. Haines**

2020 Report on the 2019 Archaeological Field Season and 2018 Laboratory Season. *Report submitted to the Institute of Archaeology, NICH, Belize*. Electronic document: [https://www.kakabish.org/uploads/3/4/0/4/34046475/2019\\_season\\_report-1.pdf](https://www.kakabish.org/uploads/3/4/0/4/34046475/2019_season_report-1.pdf)

### **Paul Healy**

Lord, E. and C. Collins, S. deFrance, M. LeFebvre, P. Eeckhout, C. Erauw, S. Fitzgerald, **P. Healy**

2020 Ancient DNA of Guinea Pigs (*Cavia* spp.) Indicates a Probable New Center of Domestication and Pathways of Global Distribution. *Nature: Scientific Reports* 10, 8901. doi.org/10.1038/s41598-020-65784-6.

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2020 Ancient Pacbitun: Introduction to the Archaeological Site and Early Research (1980-1977). In *Archaeological Reconstruction of Ancient Maya Life at Pacbitun, Belize*, Ed. T. Powis, S. Skaggs, G. Micheletti: 19-66. *British Archaeological Reports, International Series* No. 2970. BAR, Oxford, UK.

Micheletti, G. and C. Helmke, **P. Healy**

2020 Writing Pacbitun, Belize, into the Historic Record of the Southern Maya Lowlands. In: *Archaeological Reconstruction of Ancient Maya Life at Pacbitun, Belize*, Ed. T. Powis, S. Skaggs, and G. Micheletti: 242-269. *British Archaeological Reports, International Series* No. 2970. BAR, Oxford, UK.

Healy, P. and Daniel Savage

2021 The T-shaped “Axes” from Northeast Honduras: Observations on Chronology and Function of a Pre-Columbian Tool. *Journal of Lithic Studies* 8(1).

**Lisa Janz**

Janz, L. and D. Bukhchuluun

2018 Говийн бүс нутгийн харилцаа ба нийгэмд гарсан өөрчлөлт (Prehistoric interregional relations and social change in the Gobi Desert). *Studia Archaeologica* 37: 30-45. (in Mongolian with English abstract)

Frieman, C. and **L. Janz**

2018 A very remote storage box indeed... The perils and rewards of revisiting old collections. *Journal of Field Archaeology* 43(3): 1-13. DOI 10.1080/00934690.2018.1458527

Janz, L. and J. Conolly (Eds.).

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Janz, L. and A. Cameron, D. Bukhchuluun, D. Odsuren, L. Dubreuil

2020 Expanding frontier and building the sphere in arid East Asia. *Quaternary International* 559: 150-164. DOI 10.1016/j.quaint.2020.04.041

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2021 Zaraa Uul: An Archaeological Record of Holocene Palaeoecology in the Gobi Desert. *PLOS ONE* 16(4): e0249848. DOI 10.1371/journal.pone.0249848

Zhao, C. and **L. Janz**, D. Bukhchuluun, D. Odsuren

2021 Neolithic pathways in East Asia: early sedentism on the Mongolian Plateau. *Antiquity*. DOI 10.15184/aqy.2020.236

Dubreuil, L. and A. Evoy, **L. Janz**

In press The New Oasis: Potential of Use-Wear for Studying Plant Exploitation in the Gobi Desert Neolithic. *Access Archaeology*.

**Lawrence Jackson**

2018 Review of Giant Sloths and Sabertooth Cats: Extinct Mammals and the Archaeology of the Ice Age Great Basin by Donald K. Grayson. *Canadian Journal of Archaeology*, Vol. 42(2).

2018 Middle Woodland Research on White's Island, Rice Lake *Ontario Association of Professional Archaeologists Newsletter, New Series*, 2018(2): 10-11

2019 Early Palaeo-Indian Occupation in the Rice Lake, Otonabee River and South Kawartha Lakes Watersheds, South-Central Ontario. Our Lands Speak, *Occasional Papers in Archaeology* No. 1, IC Publishing. With an Introduction by Jonathan Lothrop, New York State Museum, Albany

2019 Calibrating the Age of Meadowood in South-Central Ontario: New Data from the Dawson Creek Site (BaGn-16), Rice Lake. *Association of Professional Archaeologists Newsletter, New Series*, 2019(1): 8-10.

Jackson, L. and J. Kapyrka

2019 White's Island Mink Site (BbGm-43), Rice Lake Training and Field Work 2019. *Ontario Association of Professional Archaeologists Newsletter, New Series, 2019(2): 3-9*

Jackson, L. and F. Krist

2019 The Rice Lake Early to Middle Archaic: Evidence of Bifurcate and Stanly/Neville Projectile Point Horizons in the Rice Lake/Trent River Wetlands of South-Central Ontario. *Ontario Association of Professional Archaeologists, Occasional Papers in Archaeology No. 3*

Jackson, L.

2020 French Records of 17th Century Algonquin Presence in Southern Ontario. *Ontario Association of Professional Archaeologists Newsletter, New Series, 2020 (2): 6-9.*

### **Alex McLellan**

2020 Settlement Change, Urbanism, and Human and Environment Interaction at Lamanai and Ka'kabish: Two Precolumbian Maya Sites in Northern Belize. *British Archaeological Reports, International Series 3007, Oxford.*

Haines, H. and K. Sagebiel, **A. McLellan**

2019 The Beginning to the End and Over Again: An Overview of the Occupation History of Ka'kabish, Belize. *Research Reports in Belizean Archaeology 16: 187-198.*

### **Eugene Morin**

Rendu, W. and **E. Morin**

2018 Les comportements de subsistance au Paléolithique moyen dans le Sud-Ouest de la France. In: *La Préhistoire de la France*, Ed. F. Djindjian: 132-135. Hermann, Paris

Morin, E. and J. Meier, K. El Guennouni, A.-M. Moigne, L. Lebreton, L. Rusch, P. Valensi, J. Conolly, D. Cochard 2019 New evidence of broader diets for archaic Homo populations in the northwestern Mediterranean. *Science Advances 5, eaav9106.*

Morin, E.

2019 Revue de "Préhistoire Béringienne. Étude archéologique des Grottes du Poisson-Bleu (Yukon)" par Lauriane Bourgeon. *Archéologiques 32:123-124.*

Morin, E. and C. Beauval, A. Boileau, E. Ready, V. Laroulandie

2019 The Number of Distinct Elements: Extending a landmark-based counting unit to other taxa. *Journal of Archaeological Science Reports 24: 773-784.*

Ready, E. and **E. Morin,**

2019 Preliminary analysis of faunal remains from three Middle Paleolithic deposits in Charente, France. *Journal of Archaeological Science Reports 24: 390-301.*

Morin, E. and D. Bird, R. Bliege Bird

2020 Mass procurement and prey rankings: insights from the European rabbit. *Archaeological and Anthropological Sciences 12: Article number: 262.*

Morin, E.

2020 Rethinking the emergence of bone grease procurement. *Journal of Anthropological Archaeology 59: Article number: 101178.*

2020 Comment on Frayer et al. "Krapina and the case for Neandertal symbolic behavior". *Current Anthropology 61: 723-724*

2020 Revisiting bone grease rendering in highly fragmented assemblages. *American Antiquity 85:535-553.*

Laroulandie, V. and E. Morin, M.-C. Soulier, J.-C. Castel

2020 Bird procurement by humans during the Middle and Early Upper Paleolithic in southwestern France: New data for the Aurignacian. *Quaternary International* 543:16–24.

Morin, E. and D. Bird, B. Winterhalder, R. Bliege Bird

2021 Deconstructing hunting returns: Can we reconstruct and predict payoffs from pursuing prey? *Journal of Archaeological Method and Theory*, <https://doi.org/10.1007/s10816-021-09526-6>.

Blasco, R. and D. Cochard, A. Colonese, V. Laroulandie, J. Meier, E. Morin, A. Rufà, L. Tassoni, J. Thompson

In press Small animal use by Neanderthals. In: *Updating the Neanderthals*, Ed. F. Rivals. Elsevier

Lebreton, L. and B. Gravina, A. Michel, F. Bachellerie, C. Beauval, D. Flas, V. Laroulandie, J. Marot, H. Rougier, E. Tartar, D. Todisco, I. Crevecoeur

In press The potential of micromammals for biostratigraphy In Ed. **E. Morin**. The timing of human occupations at La Roche-à-Pierrot (Saint-Césaire, France). *Quaternary*

### **Suzanne Needs-Howarth**

Hawkins, A. and **S. Needs-Howarth**, T. Orchard, E. Guiry

2019 Beyond the Local Fishing Hole: A Preliminary Study of Pan-Regional Fishing in Ontario (ca. 1000 CE to 1750 CE). *Journal of Archaeological Science: Reports* 24:856–868. DOI:10.1016/j.jasrep.2019.03.007.

Allentuck, A. and **S. Needs-Howarth**, A. Alaica, D. Desmarais, S. Rhodes (guest editors)

2019 Zooarchaeology and Landscape Interaction: An Exploration through Economic, Social and Political Patterns of Faunal Remains. Special issue. *Journal of Archaeological Science: Reports*. DOI:10.1016/j.jasrep.2019.102081.

Guiry, E. and T. Orchard, **S. Needs-Howarth**, P. Szpak

2020 Isotopic Evidence for Garden Hunting and Resource Depression in the Late Woodland of Northeastern North America. *American Antiquity* 86(1): 90–110. DOI:10.1017/aaq.2020.86

Guiry, E. and T. Royle, T. Orchard, **S. Needs-Howarth**, D. Yang, P. Szpak

2020 Evidence for Freshwater Residency among Lake Ontario Atlantic salmon (*Salmo salar*) Spawning in New York. *Journal of Great Lakes Research* 46:1036–1043. DOI:10.1016/j.jglr.2020.05.009

Royle, T. and H. Zhang, E. Guiry, T. Orchard, **S. Needs-Howarth**, D. Yang

2020 Investigating the Sex-Selectivity of a Middle Ontario Iroquoian Atlantic Salmon (*Salmo salar*) and Lake Trout (*Salvelinus namaycush*) Fishery through Ancient DNA Analysis. *Journal of Archaeological Science: Reports* 102301. DOI:10.1016/j.jasrep.2020.102301

Guiry, E. and M. Buckley, T. Orchard, A. Hawkins, **S. Needs-Howarth**, E. Holm, P. Szpak

2020 Deforestation Caused Abrupt Shift in Great Lakes Nitrogen Cycle. *Limnology and Oceanography* 65:1921–1935. DOI:10.1002/lno.11428.

Gates St-Pierre, C. and **S. Needs-Howarth**, M-È. Boisvert

2021 Indicators for Interactions from the Legacy Worked and Unworked Animal Bone Assemblages from the Ancestral Wendat Quackenbush Site. *Canadian Journal of Archaeology* in press.

### **Daniel Rafuse**

2021 A Maxent predictive model for hunter-gatherer sites in the southern Pampas, Argentina. *Open Quaternary*. 7(1): 6. <http://doi.org/10.5334/oq.97>

Martínez, G. and F. Santos Valero, A. Alcaráz, E. Borges Vaz, L. Stoessel, G. Flensburg, G. Martínez; **D. Rafuse**.

2021 Primeros resultados de las investigaciones arqueológicas en el interfluvio Colorado-Negro (Departamento de Pichi Mahuida; Provincia de Río Negro). *Chungara Revista de Antropología Chilena*.

Massigoge, A. and **D. Rafuse**, J. Rodríguez, R. Torino, C. Favier Dubois.

2021 Technology, subsistence, and mobility of Middle to Late Holocene hunter-gatherers in the southern Pampas: new archaeological data from Las Toscas shallow lake (Argentina). *Archaeological and Anthropological Sciences*. <https://doi.org/10.1007/s12520-021-01314-3>.

### **Jeff Seibert**

2018 Review of Archaeology of Domestic Architecture and the Human Use of Space. *Canadian Journal of Archaeology*. 42:298–300

2018 Review of Ornamental nationalism: archaeology and antiquities in Mexico. *Choice* Vol. 55, Issue 9

2018 Review of Constructing power and place in Mesoamerica: pre-Hispanic paintings from three regions. *Choice* Vol. 55, Issue 12

2019 Review of Challenging Colonial Narratives: Nineteenth-Century Great Lakes Archaeology. *Canadian Journal of Archaeology*. 43:259–261

2019 Review of A Study of Southwestern Archaeology. *Choice* Vol. 56, Issue 9

2020 Archaeological Investigations on the Site of the Early Nineteenth-Century Naval Hospital at Point Frederick (BbGc-43), Royal Military College of Canada, Kingston, Ontario. *Ontario Archaeology* 100: 60-83

Seibert, J. and D. McGuire

2020 Engineering Drawings and Stage 1 Background Study (optional) Property Inspection. *Arch Notes Newsletter of the Ontario Archaeological Society* 25(3) 6-8

Seibert, J.

2020 Review of The archaeology of Burning Man: the rise and fall of Black Rock City. *Choice* Vol 58, Issue 5

2020 Review of Contact, colonialism, and native communities in the southeastern United States. *Choice* Vol 58, Issue 2

### **Sarah Stewart**

Stewart, S. and S. Murphy, P. Bikoulis, C. McCartney, S. Manning, R. Hancock

2020 Early Neolithic chert availability in central Cyprus: Geo-chemical and spatial analyses. *Journal of Archaeological Sciences: Reports* 29 102088 1-9. Special section on “Cherts and Prehistory in the Near East – Recent Advances”. Ed. C. Delage and J. Webb.

Murphy, S. and P. Bikoulis, **S. Stewart**

2019 Finding the Way: Predictive modelling and the Early Neolithic in the Eastern Troodos of foothills of Cyprus. In *Near Eastern Lithic Technologies on the Move. Interactions and Contexts in Neolithic Traditions*. 8th International Conference of PPN Chipped Stone and Ground Stone Industries of the Near East. Nicosia, November 23-27, 2016. Edited by L. Astruc, F. Briois, C. McCartney and L. Kassianidou. *Studies in Mediterranean Archaeology* Vol Cl. Astrom Edition, Nicosia.

Stewart, S., and M. Morden

In press The Idalion Survey Project. In *Idalion III: The Terrace of the East Acropolis, Moutti tou Avrili, and Special Studies*. Chapter 11. Ed. P. Gaber. Annual of the American Schools of Oriental Research. Boston.

### **John Topic and Theresa Topic**

2020 En la tierra del oráculo de Catequil: Arqueología de Huamachuco antiguo

## Conference and Invited Presentations

Communications listed in this section are intended to document professional or peer to peer presentations, which may or may not result in formal written reports. The audience for such talks may include personal attendance by varying numbers of the general public, similar to potential attendance by professionals at public outreach presentations. The artificial nature of this dichotomy is further complicated by modern communications technology, allowing global attendance at professional organization virtual talks and the recording of general interest organization presentations on systems such as YouTube.

### Ian Begg

“Graeco-Roman Channels and Water Management at Tebtunis in the Fayyum: from archives to aerospace technology,” American Research Centre in Egypt Annual Meeting, 2019, Alexandria, Virginia.

“A Pan Flute from Egypt,” American Research Centre in Egypt Annual Virtual Meeting, 2020.

### Laure Dubreuil

“From foraging to farming in the Southern Levant: The ground stone tool perspective” Conference at the University of Toronto, February 2018, Toronto, Ontario.

“Direct evidence of ritual breakage of ground stone tool at Hilazon Tachtit Cave”. Conference at the Hebrew University of Jerusalem, May 2018, Jerusalem, Israel.

“The ground stone tool perspective on the transition from foraging to farming in the Southern Levant”, Conference at Stanford University, April 2019, Stanford, California.

“Ground stone tool technology, food practices and the transition from foraging to farming in the Southern Levant”. Monrepos Research Museum, March 2020, Monrepos, Germany.

Dubreuil, L. and A. Evoy, A. Rosen, L. Janz.

“Ground stone tools in the Gobi Desert and the ‘new’ oasis theory”. Paper presented at the 3rd meeting of the Association for Ground Stone Research at Copenhagen, 2019.

Dubreuil, L. and A. Ovia, R. Shahack-Gross, L. Grosman.

“Ritual breakage of a ground stone tool 12,000 years ago at Hilazon Tachtit cave.” Paper presented at the 3rd meeting of the Association for Ground Stone Research at Copenhagen, 2019.

Paixão, E. and J. Marreiros, M. Prévost, **L. Dubreuil**, Y. Zaidner

“3D quantification methods to characterize ground stone tools use: Application to the analyses of Unit V of Neher Ramla (Middle Paleolithic, Central Levant)”. Poster presented at the 3rd meeting of the Association for Ground Stone Research at Copenhagen, 2019.

Dubreuil, L. and J. Robitaille, J. Gonzalez-Urquijo, J. Marreiros, A. Stroulia.

“A ‘family of wear’: Exploring use-wear patterns on ad hoc smoothing, burnishing/polishing tools”. Paper presented at the EAA 2021 Conference.

### Paul Duffy

Duffy, P. and W. Parkinson, A. Gyucha, R. Yerkes

“Origins of households at Neolithic and Bronze Age tell settlement complexes on the Great Hungarian Plain”. International Open Workshop 2019: Socio-Environmental Dynamics over the Last 15,000 Years: The Creation of Landscapes VI, March 11-15, 2019, Kiel, Germany,

Duffy, P. and J. Giblin, G. Pardička, L. Paja.

“Trial by fire: Lessons from the 2015-2018 BAKOTA NSF-REU field school”. Society for American Archaeology, April 11, 2019, Albuquerque, New Mexico.

Godinez, T. and **P. Duffy**, G. Parditka

“Channeling the Stylist Within: A Comparative Analysis of Bronze Age Ceramic Design Structure in Eastern Hungary”, Society for American Archaeology, April 11, 2019, Albuquerque, New Mexico.

Mengyán, Á. and Z. Bible, **P. Duffy**, G. Parditka

“Styles for Miles: A Regional Analysis of Ceramic Design Elements”, Society for American Archaeology, April 11, 2019, Albuquerque, New Mexico.

Duffy, P. and S. Stewart, E. Banning

“Digging in our backyard: working ahead of the bulldozers at the Huron-Washington Parkette”. Paper presented at the Ontario Archaeology Society, November 2, 2019. Toronto, Ontario.

Banning, E. and **P. Duffy**, S. Stewart

“Campus underground: teaching field skills while preserving heritage ahead of the bulldozers”. Paper presented at the Ontario Archaeology Society, November 3, 2019, Toronto, Ontario.

Duffy, P.

“Population size, social inequality, and the plough: the relationship between agro-production and social complexity in the Carpathian Basin”. International Workshop: Technology, land use and social organization: connecting patterns in Neolithic and Bronze Age Europe, November 20-21, 2019, Schloss Gottorf, Schleswig, Germany.

Duffy, P. and D. Borič

“Predictive modeling for Mesolithic site locations in southeastern Europe”. Paper presented virtually at Meso’2020: Tenth International Conference on the Mesolithic in Europe, Sept. 9, 2020, Toulouse, France.

Borič, D. and **P. Duffy**

“Chronological Perspectives on the Spread of Agriculture in Southeastern Europe”. Paper presented at the 86th Meeting of the Society for American Archaeology, April 16, 2021, San Francisco, California.

Duffy, P. and N. Johannsen

“Agriculture, regional variation and the development of social inequality in the Carpathian Basin”. Paper presented at the European Archaeological Association, Sept. 9, 2021, Kiel, Germany. Rodney Fitzgerald

### **Rodney Fitzsimons**

“Constructing a Legendary Past: Possible Archaizing Elements in the Funerary Landscape of Late Bronze Age Mycenae,” Mneme: Past and Memory in the Aegean Bronze Age, 17th International Aegaeum Conference, April 17-21, 2018, Udine/Venice, Italy.

“Laying the Foundations for the Mycenaean State: Labour Investment, Tomb Construction, and Early State Formation in the Bronze Age Argolid,” Reconstructing Scales of Economy in Archaeology: Products, People, Producers, Processes, 19th Annual Congress of Classical Archaeology: Archaeology and Economy of the Classical World, May 22-26, 2018, Cologne/Bonn, Germany.

“Archaeological Methods,” Guest Lecture for CLAS 3021: Ancient Art and Architecture, Department of Classics, Dalhousie University, February 25, 2019, Halifax, Nova Scotia.

“Crete of the Hundred Cities: Architecture, State Formation, and Urbanisation on Archaic Crete,” Department of Classics, Dalhousie University, February 26, 2019, Halifax, Nova Scotia.

“Crete of the Hundred Cities: Architecture, State Formation, and Urbanisation on Archaic Crete,” Department of Archaeology, University of Catania, May 22, 2019, Catania, Italy,

Fitzsimons, R. and D. Buell.

“Minoans at Aghios Nikolaos? A Bronze Age Harbour Site at Khavania, Lasithi,” Ε΄ Παγκρήτιας Συνάντησης για το Αρχαιολογικό Έργο στην Κρήτη, November 21-24, 2019, Rethymnon, Crete.

Haggis, D. and **R. Fitzsimons**

“Civic Architecture and the Social Dimensions of the Built Environment in Archaic Crete. The Case of Azoria in the 6th Century B.C.” Σχήματα. La città oltre la forma. Per una nuova definizione dei paesaggi

urbani e delle loro funzioni: urbanizzazione e società nel Mediterraneo pre-classico, February 26-28, 2020, Syracuse, Italy.

Fitzsimons, R.

"Case Studies in the Anthropology of Feasting: Commensal Politics and Identity Creation in Ancient Greece," Guest Lecture for ANTH 1001H: General Anthropology, Trent University, March 6, 2020, Peterborough, Ontario.

Buell, D. and **R. Fitzsimons**

"Minoans at Aghios Nikolaos: Preliminary Results of the Khavania Topographic and Architectural Mapping Project, Summer 2019." 122nd Annual Meeting of the Archaeological Institute of America, January 5-10, 2021, Virtual.

Fitzsimons, R. and D. Buell.

"Minoans at Aghios Nikolaos? A Bronze Age Harbour Site at Khavania, Lasithi," 86th Annual Meeting of the Society for American Archaeology, April 15-18, 2021, Virtual.

### **William Fox**

Fox, W. and B. MacDonald

"Certain Stone Pipes Among the Neutral Iroquois". Paper presented at the 85th annual Eastern States Archaeological Federation conference, November 3, 2018, Watertown, New York.

Fox, W.

"Early 17th Century Indigenous Exchange" Paper presented at the Before Canada Conference, McGill University, October 27, 2019, Montreal, Quebec.

### **Helen Haines**

Haines, H. and A. McLellan, K. Sagebiel, E. Graham

"The "what" is in constant flux: Meditations on the Problems of Scale and Archaeological Perception". Paper presented at the 25th Annual European Maya Conference, 2020, Virtual.

### **Lisa Janz**

"Interaction and Migration in the Circumpolar Pacific: 5000 BC to AD 1." International Workshop, Trent University, September 17-18, 2018, Peterborough, Ontario.

"The New Oasis: Climate Change and Human Populations in East Asia." Department of Anthropology, Harvard University, March 7, 2019, Boston, Massachusetts.

"Hunter – Herder – Horseman. The Dawn of Monumental Landscapes in Inner Asia." International Workshop, Institute for the Study of the Ancient World (ISAW), March 8, 2019, New York, New York.

"Why choose small packages when there are so many big packages around?" In Do Good Things Come in Small Packages? Human Behavioral Ecology and Small Game Exploitation, 84th Annual Meeting of the Society for American Archaeology, April 10-14, 2019, Albuquerque, New Mexico.

"Ceramics in the desert - Mongolian pottery in context." In Old World Ceramic Origins and Behavioral Contexts from the Late Pleistocene to the Early Holocene, INQUA 2019, July 25-31, 2019, Dublin, Ireland.

"Tamsagbulag: New Center of Cattle Domestication in East Asia?" In New Directions in Mongolian Archaeology. 85th Annual Meeting of the Society for American Archaeology, April 15-17, 2021, Virtual.

### **Alec McLellan**

Haines, H. and K. Sagebiel, **A. McLellan**, A. Shugar, C. Tremain, J. Lockett-Harris

"The Beginning to the End and Over Again: An Overview of the Occupation History of Ka'kabish, Belize". Paper presented at the 17th annual Belize Archaeology Symposium, 2019, San Ignacio, Belize.

McLellan, A. and E. Graham

"Impact of the Collapse? Evidence of Migration into the Greater Lamanai Area (GLA)". Paper presented at the American Anthropology Association annual meeting, 2019, Vancouver, British Columbia.



Helen H. and **A. McLellan**, K. Sagebiel, E. Graham

“The “what” is in constant flux: Meditations on the Problems of Scale and Archaeological Perception”. Paper presented at the 25th European Maya Conference, 2020, Virtual.

McLellan, A.

“Socio-economic Complexity at the Precolumbian Maya site of Coco Chan, Belize”. Paper presented at the 53rd Annual Meeting of the Canadian Archaeological Association. 2021, Virtual.

Bhardwaj, R. and S. Karrow, **A. McLellan**

“As the Creek Flows: Spatial and Chronological Distribution of Indigenous Artifacts along Seneca Creek, Caledonia, Ontario”. Paper presented at the Annual Meeting of the Archaeological Institute of America, 2021, Virtual.

### **Suzanne Needs-Howarth**

From early 2018 to late 2021, Suzanne has been a co-author on a total of 12 presentations at the following conferences: Canadian Archaeological Society (1 paper); Faunal Interest Group of the University of Toronto Archaeology Centre (1 paper); International Conference on the Applications of Stable Isotope Techniques to Ecological Studies (1 paper); International Council for Archaeozoology Worked Bone Research group (1 poster); International Council for Archaeozoology Zooarchaeology Bird Working Group (1 paper); Society for American Archaeology (1 poster).

### **Paul Szpak**

2018 “Stable isotope analysis of archaeological textiles from northern Chile”. Paper presented at the Universidad de Tarapaca, Arica, Chile.

2018 “Impact of prehistoric human hunters on the foraging ecology of the Arctic fox”. At 11th International Conference on the Applications of Stable Isotope Techniques to Ecological Studies, Viña del Mar, Chile.

2018 “The environmental context of the Dorset-Thule transition: Evidence from stable isotope analysis of archaeofauna”. 83rd Annual Meeting, Society for American Archaeology, Washington, D.C.

Szpak P. and K. Chiou.

2018 “Stable Isotope Analysis of Macrobotanical Remains from the Jequetepeque Valley: Evidence for Agricultural Intensification”. 37th Northeast Conference on Andean and Amazonian Archaeology and Ethnohistory, Binghamton, New York.

2019 “Isotopic Explorations of Holocene through Anthropocene Arctic Ecosystems”. Penn State University, Department of Anthropology Colloquium, University Park, Pennsylvania.

Szpak P. and K. Chiou.

2019 “Testing old assumptions about isotope analyses of macrobotanical remains: Agricultural intensification in the Jequetepeque Valley”. 47th Midwest Conference on Andean and Amazonian Archaeology and Ethnohistory, Urbana, Illinois.

Szpak P. and D. Valenzuela

2019 “Exploring Camelid Management Practices in Northern Chile Using Stable Isotope Analysis”. Sixth Society for Amazonian & Andean Studies Biennial Meeting, Tuscaloosa, Alabama.

Szpak P. and D. Valenzuela

2019 “Camelid husbandry in the Atacama Desert?”. Third Meeting on Stable Isotopes in Southern South America, Pica, Chile.

Szpak P. and D. Valenzuela

2019 “Exploring Camelid Management Practices in Northern Chile Using Stable Isotope Analysis”. 38th Northeast Conference on Andean and Amazonian Archaeology and Ethnohistory, Providence, Rhode Island.

Szpak P. and K. Chiou

2019 “Stable isotope analysis of charred and desiccated plant remains from the north coast of Peru”. 84th Annual Meeting, Society for American Archaeology, Albuquerque, New Mexico.

2020 “Isotopic Explorations of Holocene through Anthropocene Arctic Ecosystems”. McMaster Anthropology Society – Undergraduate Symposium, Hamilton, Ontario.

2020 “Isotopic Explorations of Holocene through Anthropocene Arctic Ecosystem”. SFU Department of Archaeology Speaker Series, Vancouver, British Columbia.

### **John and Theresa Topic**

**John Topic** was discussant for “The Empire of the Ancestors” Webinar Colloquium, May 7 & 8 2021, Dumbarton Oaks. Virtual.

### **Jocelyn Williams**

Williams, J.

“Desvistiendo el pasado: Estudio de fardos de Pachacamac a través de CT-SCAN y Rayos-X”. Paper presented at the VI National Congress of Archaeology, Ministry of Culture, August 2019, Lima, Perú.

Williams, J. and J. Sutinen, G. Iannone

“Rocks stay stationary, not people: Population movement and long term sociodynamics at the Maya centre of Minanha, Belize”. Paper presented at the Canadian Association for Physical Anthropology, October 24-26, 2019, Banff, Alberta.

Nelson A. and L. Watson, **J. Williams**, S. Gauld, J. Motley, L. Poeta, D. Seston, E. Gomez, J. Baldeos, S. Fuentes, D. Pozzi-Escot

“Mummies as microcosms: The non-destructive analysis of mummy bundles from the site of Pachacamac, Peru”. Paper presented at the Canadian Association for Physical Anthropology, October 24-26, 2019, Banff, Alberta.

Watson, L. and A. Nelson, M. Córdova, A. Alvarez, **J. Williams**, S. Gauld, J. Motley, L. Poeta, D. Seston, E. Gomez

“Muerte en Huaycan de Parichi: Análisis de fardos funerarios con base en CT-scan (1470d.C-1532d.C)”. Paper presented at the VII National Congress of Archaeology, Ministry of Culture, September 2020, Lima, Peru.

Watson, L. and A. Nelson, **J. Williams**, S. Gauld, J. Motley, L. Poeta, D. Seston

“Morir en tiempos de Imperio en Los Andes 1100d.C - 1532d.C”. Paper presented at Hablando con la Eternidad, Laboratorio de Materiales Osteológicos Área de Arqueología, Guatemala City, September 2020, Virtual.

Nelson, A. and L. Watson, **J. Williams**, S. Gauld, J. Motley, L. Poeta, E. Gomez, J. Baldeo, D. Pozzi-Escot

“Mummies as microcosms: The bioarchaeological assessment of funerary bundles from outside of the sanctuary of Pachacamac, Peru (1100AD - 1470 AD)”. Paper presented at the 61st annual meeting of the Institute of Andean Studies, January 2021, Virtual.