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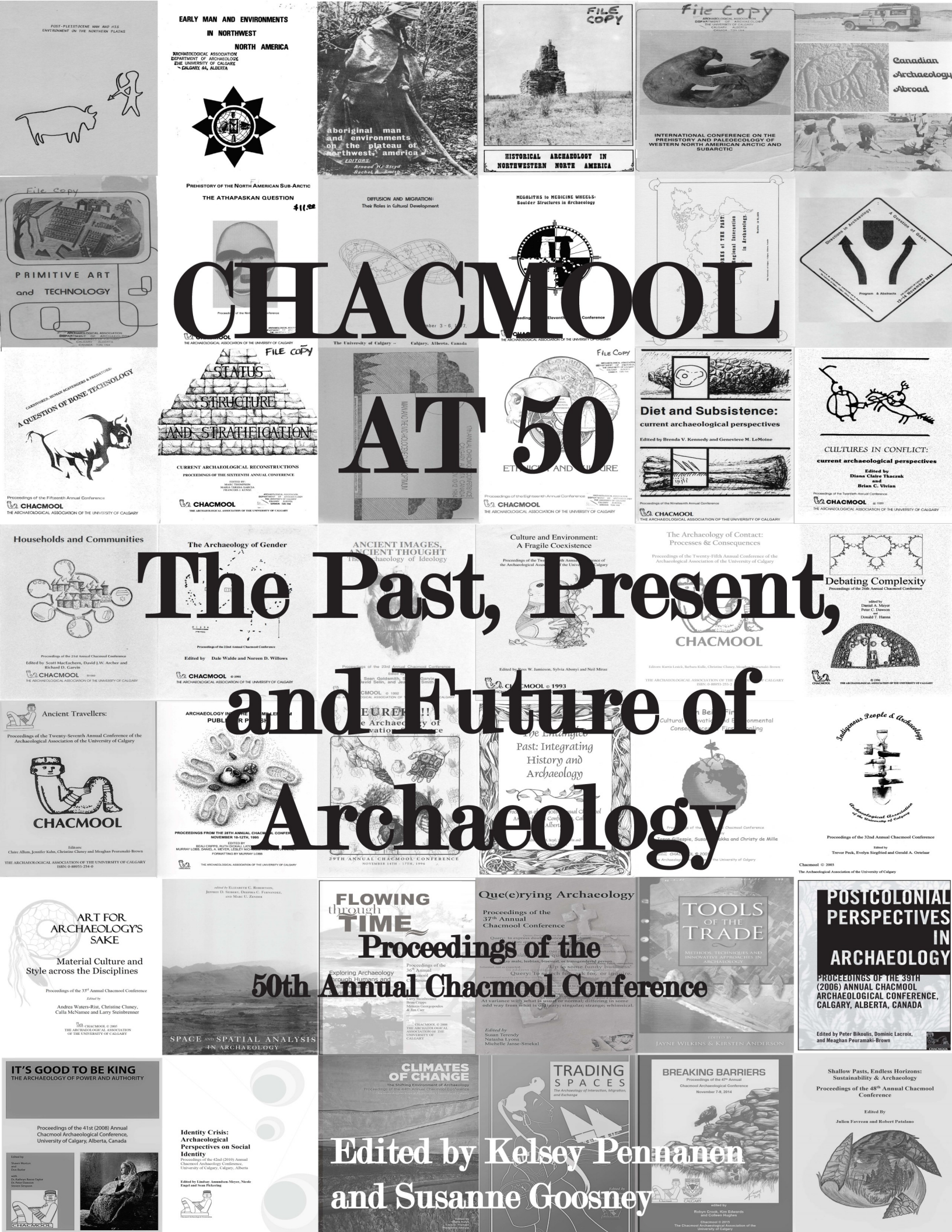
Chacmool at 50: The Past, Present, and Future of Archaeology

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The University of Calgary

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CHACMOOL AT 50

The Past, Present and Future of Archaeology

Proceedings of the 50th Annual Chacmool Archaeology Conference
November 8-12, 2017



University of Calgary
Calgary, Alberta, Canada

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Chacmool at 50: The Past, Present and Future Archaeology

Proceedings of the 50th Annual Chacmool Archaeology Conference
November 8-12, 2017

Edited by

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I INTRODUCTION

The Chacmool Archaeology Conference started as a modest dream by a select few enthusiastic undergraduate students in the late 1960s and since then the conference has prevailed and grown. The Chacmool conference has over the years been organized and executed by driven and passionate undergraduate students, with the aid of supportive faculty and graduate students. The success of the Chacmool conference is therefore the success of all who have partaken, from participants, to presenters, organizers, and alumni of the University of Calgary who helped to ensure that this conference continued. The knowledge shared at these conferences, as well as the countless memories made, have provided Chacmool with a prominent legacy, and we hope to share this legacy as we continue into the future.

The 2017 Chacmool Archaeology Conference of the University of Calgary's Chacmool Archaeology Association will celebrate 50 years of Calgary's leadership role in Canadian archaeology. Through the years, Chacmool conferences have pushed the boundaries of archaeological method and theory, bringing together renowned international experts in an intimate conference setting with students and emerging scholars. The progressive themes of the conference have helped define the directions taken by the discipline, while the opportunities to present in an informal gathering have contributed to the launch of innumerable professional careers. Chacmool conferences are unique for the prominent role of both undergraduate and graduate students in the conceptualization and organization of the events, and for the subsequent conference volumes also edited by students. This proceedings is separated into 3 sections, Part 1 *Chacmool: A Legacy* discusses the creation of the University of Calgary Archaeology undergraduate organization, Part 2 *From the Rockies to Panama* discusses the influences of Chacmool in Central America, and Part 3 *Looking to the Past, Reflections on Changing Perspective in Archaeology* examines how perspectives in the disciplines have changes since the establishment of Chacmool. The proceedings therefore adequately follow and embody this years' conference theme through discussions of the Past, Present, and Future of Archaeology.

Michael C. Wilson, the first president of Chacmool and first conference organizer, embodies the legacy of Chacmool and deserves the utmost credence for establishing the Chacmool club and conference to allow for the legacy we celebrate today. His article provides a reflective memoir on his early days that sparked his interest in archaeology. Wilson eloquently, and in detail and dialogue that truly captures the imagery with quick comparisons, describes the foundation of the University of Calgary, and the subsequent Department of Archaeology and gives credence to the major proponents whose work went into accomplishing these feats. Having taken part in the creation of the student organization, he describes the work that went into the creation of the conference by the self-described "starry-eyed", "brash", "dedicated but naïve" undergraduate students from a newly-formed University and Department. Wilson's work as a geoarchaeologist has long stressed that an understanding of formation processes, both natural and cultural, is a necessity for all archaeologists. Heinz Pyszczyk also makes note of this in his article, placing the discussion in relation to interpretations in historic archaeology with a focus on fur trade forts and their ability to be discerned using modern methods.

Heinz W. Pyszczyk of the Department of Geography from the University of Lethbridge in Alberta provides an overview of the history of and development of historic archaeology in the Province of Alberta, using the example of the Fort Vermillion Fur Trade Fort to discuss how it has changed through the years. The legacy of Chacmool is demonstrated through the discussion of how presenting a similar paper at the Chacmool conference at the 8th Annual Chacmool Archaeology conference *Archaeology in Western Canada: A Tribute to Calgary's 100th Anniversary (1975)* helped shape that perspective. He then continues the theme of the 2017 conference and discusses the future of archaeology, the successes and shortfalls of LiDAR documentation, and discussion of the use of photogrammetric methods more recently employed by archaeologists.

The impact of the Chacmool legacy can be felt far and wide, as the Chacmool conferences take place in Calgary, Alberta, north of the 49th parallel and in the shadow of the Canadian Rocky Mountains, yet have had a lasting impact on Central American archaeology over the last 5 decades. Calgary is located a fair distance from Central America, yet the influence of this area through name and participation maintains this closeness.

In this proceedings, Larry Steinbrenner provides an excellent summation of the history of Nicaraguan archaeology: *“Lesser Nicoya?”: Addressing Nicaragua’s Marginal Place in Central American Archaeology*. The author’s depth of knowledge on the topic makes it an interesting read and provides a thorough introduction to those who are unfamiliar with the history of archaeological research in Nicaragua. He discusses how Nicaraguan archaeology is the least explored, and how a lack of published results of significant excavations in this area can lead to a deficiency of foundational evidence making it difficult to address larger theoretical questions relating to this area. By providing an overview of the study of Nicaragua archaeology, he gives credence to the researchers who make this work central, such as Geoff McCafferty, both the current state of Nicaraguan archaeology, as well as the continuation of this conference, would not have been possible without his contributions and persistence.

To further emphasize the Mesoamerican influence, Kathryn Florence provides a compelling perspective on the influence and use of art as an act of warfare in Teotihuacan. The article details examples of art to engage combatively, and suggests that there is more to learn from the examination of art, allowing for future research to incorporate these ideas. Rocío M.L. Herrera Reyes provides a thorough overview of *Archaeological Studies and Development in El Salvador*, showcasing a different perspective on the development of the discipline in El Salvador, providing details from the very beginning stages to its current state. She discusses the issues of starting and gaining interest in a discipline, and how much work is involved in every stage, as well as the prominent figures who influenced its development. Through strong will and determination, archaeology has finally made its way into El Salvador and its education systems. Through gaining public interest and through strong, prominent figures who influenced its development and continuation, the history of archaeology in El Salvador can be compared to the Chacmool conferences, both successes are evident in the interest, preservation and study of the past in its many forms.

As we investigate the future of Central American archaeology, the article from Patrick Rohrer and Travis W. Stanton represents how technology can be an influence, as they use LiDAR data imagery to map causeways between Maya cities. Their research demonstrates the immensity of connected networks in the past, using the technology of the future available to us now that provides a detailed, and birds-eye view to see through vegetation and examine causeways that haven’t been walked in centuries. These perspectives provide value to analyses and understandings of human life in the past that was never dreamed possible in previous decades. As we continue to move forward and expand into these exciting new avenues provided by technology, it is always beneficial to provide a retrospective on how far we have come. The next articles provide an interesting perspective on how various conference themes have allowed us to consider new perspectives.

The third section explores reflections on the past of the discipline of archaeology, while examining our perspectives looking forward into the future. Each author provides critical reflections and opportunities for ethical examination of practices within the discipline as we progress onto our 50th year of knowledge exchange within the discipline of archaeology. Chelsea H. Meloche and Laure Spake provide a discussion of the ethics of our legacy collections and urge for respect when dealing with ancestral remains and their belongings. The authors explore ethical responsibilities, and propose suggestions for institutions, such as to acknowledge the existence of legacy collections, as well as build relationships by halting practices of colonial ways through repatriation. Their final messaging urges institutions to clean out their closets and return ancestors home. The authors propose that the sustainability of archaeological repositories and their ethical management is one of the most pressing issues facing the discipline today.

Continuing the ethical dialogue, George Nicholas presented a Plenary discussion at the 32nd annual Chacmool Archaeology conference in 1999, titled “Understanding the Present, Honouring the Past”. He graciously returned as a plenary speaker for the 50th Annual Chacmool conference to discuss the reconciliation of heritage, specifically relating to the value we can gain from heritage. Further emphasizing issues relating to the access of cultural heritage for indigenous communities, as well as the necessity for community-based archaeological work. What Nicholas refers to as “a shift in priorities and process” in relation to Indigenous Archaeology, the article discusses reflections and recent contributions from the author on over 30 years of studying Indigenous Peoples and Archaeology and provides valuable considerations for many archaeologists. Nicholas reflects on his own work and discusses how his involvement in Indigenous archaeology and activism, through a series of events throughout his career, has changed his life-path in ways never previously envisioned.

He eloquently discusses how far reconciliation in heritage has come and lays foundations for steps to move forward in this process, it is disheartening to reiterate some of the hurdles that have been ongoing in relation to indigenous archaeology: such as ownership over cultural heritage, recognition of indigenous worldviews in relation to scientific inquiry, and continued “violence” to heritage. Yet, the article is blanketed in a sense of optimism, as Nicholas provides an overview of these in his discussion, at strides already made and reflections on changes that have taken place, with steps on continuing improvement for moving forward.

Sarah M. Nelson provides a review of gender in archaeology over the last 50 years, critically reflecting on archaeological awareness of work on public influence and equity. Discussion on how writings on gender have improved since the 22nd Annual Chacmool Conference *The Archaeology of Gender* in 1989 and the examination of women within the discipline. The 1989 conference and subsequent 1991 proceedings proposed and inspired changes to the way archaeology is conducted and problems are studied, and the author emphasizes that students should realize the strides made from a time when discussions of equity and writings of gender in archaeology was considered a dangerous practice for your career. Upon examining this, the question is raised about whether we still need gender studies in archaeology, and our current examinations on gender perceptions on the past is examined.

In essence, that is what this conference has been about, by reflecting on where we have been, we can see that we have already traversed a great distance. Through this, it allows evaluating and critiquing of where we are now, and laying the foundation for the path that we will need to travel next. The discipline is continually changing, and sometimes in ways that extend their influence from far beyond our discipline. We therefore need to react appropriately to these changes and ensure we continue our ethical pathway forward.

This year’s conference, *the Past, Present and Future of Archaeology*, took place from November 8-12, 2017 at the University of Calgary. For 50 years the conference has allowed for careers and networks to flourish and has allowed us to question our goals and insights. As the Department and the University of Calgary continue to grow, evolve, and change, we remember and celebrate the past and work together towards common goals while forever looking forward to our future. Celebrating 50 years of conferences, organized by undergraduate students marks a long-lasting legacy built on the continued hard work and dedication of generations of students. The editors would like to thank all who have participated in this conference, as well as past conferences, to those who have helped to make this dream, and this legacy, a reality. Thank you to all for your hard work and contributions in ensuring the lasting legacy of Calgary Archaeology, and for celebrating 50 years of the Chacmool Archaeology- and we look forward to a bright future in our studies of the past!

- Kelsey Pennanen

Chacmool at 50 Editor and Graduate Advisor

II ACKNOWLEDGEMENTS

“We wish to thank sincerely all the conference contributors and participants who, in essence, are the conference”.

- P.G. Duke and A.P. Buchner Chacmool Proceedings Acknowledgements (1977)

The editors extend their gratitude to all the participators in the 2017 conference, and the authors who generously donated their time and effort for the proceedings. The editors would like to thank and acknowledge the efforts and persistence made by the 50th Chacmool Organizing Committee, Dr. Geoff McCafferty (Faculty Advisor), Dr. Peter Dawson (Faculty Advisor), Kelsey Pennanen (Graduate Advisor), Anthony Hawboldt (Media Coordinator), Ella Pedersen (Archival Coordinator), Laura Levac (Volunteer Coordinator), Susanne Goosney (Silent Auction Coordinator), Tatyanna Ewald (Webmaster), and the 2016-2017 Chacmool Archaeological Association Executives: Brendan Jenks (President), Kelsey Sylvester (Vice President), Justine Butler (Social Coordinator), and Patricia Verhoven (Treasurer). Additional thanks to Tatyanna Ewald for publishing oversight and final editing, as well as Dr. Gerry Oetelaar, who provided additional support for the students until the final stages of the conference. We would also like to extend our thanks to the Department of Anthropology and Archaeology at the University of Calgary, particularly Department Head Pascale Sicotte, and all of the departmental support staff for their work contributing to this conference including Shukri Attayeh, Julie Boyd, Monica Davidson, Kris Russell-Markin, Tracy Wyman, and Nikki Zdan. A special thank you goes out to our volunteers: we are endlessly appreciative of their work to make this conference possible.

We would also like to acknowledge that the conference took place on the traditional territories of the Blackfoot and the people of the Treaty 7 region in Southern Alberta, which includes the Siksika, the Piikani, the Kainai, the Tsuut'ina and the Stoney Nakoda First Nations, including Chiniki, Bears paw, and Wesley First Nation, as well would like to recognize that the City of Calgary is also home to Métis Nation of Alberta, Region III. We would like to provide thanks for allowing us to gather and share knowledge in this space.

III 50TH ANNUAL CHACMOOL CONFERENCE

SESSIONS AND PARTICIPANTS

Keynote Address

Rosemary A. Joyce (University of California, Berkeley)

Responsible Archaeology: Reflections on Practice in the Age of Chacmool

Plenary Session

Roland Fletcher (University of Sydney)

Low-density Cities: Past and Future

George Nicholas (Simon Fraser University)

Reconciling Heritage: Doing Archaeology at the Intersection of Indigenous Heritage, Intellectual Property, and Human Rights

Joanne Pillsbury (Metropolitan Museum of Art)

Archaeology and the Future of Museums

On the Eve of the Calendar Round Cycle: Reflections and Advancements in the Mesoamerican Studies

Chairs: Karen Bassie and Christina Halperin

Christina Halperin¹, José Luis Garrido², Nicholas A. Hopkins, Michelle Rich³, Kristin De Lucia⁴, Enrique Roríguez-Alegría⁵, ⁶Diana Moreiras Reynaga, ⁷Brent Woodfill, ⁸Jeffrey Vadala, ⁹Elin Danien, John Millhauser¹⁰, Keith Eppich¹¹, Jeffrey Glover¹², Dominique Rissolo¹³, Jon Spenard¹⁴, Terry Powis¹⁵, Sheldon Skaggs¹⁶, Christophe Helmke¹⁷, Tim Beach¹⁸, Sheryl Luzzadder-Beach, Samantha Krause, Colin Doyle Sara Eshleman, Duncan Cook, Andrew Wyatt¹⁹, Patrick Rohrer²⁰, Travis W. Stanton²⁰, Kerry Hull²¹, Yuko Shitori²², Kathryn Math²³, Mark Wright²⁴, Geoff Braswell²⁵, Michael Carrasco²⁶, A. Sean Goldsmith²⁷, Karen Bassie-Sweet²⁸

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The ‘Other Grand Challenge’: Archaeological Education & Pedagogy in the Next 50 Years (Part 1) *Chairs: Meaghan Peuramäki-Brown and C. Mathew Saunders*

C. Mathew Saunders¹, Meaghan Peuramäki-Brown², Mike Corbishley³, John R. Welch⁴, David Burley⁴, Erin Hogg⁴, Kanthi Jayasundera⁴, David Maxwell⁴, George Nicholas⁴, Janet Pivnick⁴, Christopher D. Dore⁵, Joanne Hammond⁶, Michael Klassen^{7,4}, Adrian Praetzelis⁸, Danny Zbrover⁹, Ran Boytner⁹, Christine Cluney¹⁰, Kisha Supernant¹¹, Kevin Brownlee¹², William Dumas¹³, Myra Sitchon¹⁴, Christie Grekul¹⁵, Cynthia Zutter¹⁶, Todd Kristensen¹⁷, Courtney Lakevold¹⁷, Oula Seitsonen¹⁸, Shawn Morton¹⁹, Peter Dawson²⁰, Christopher Sims²¹, Meigan Henry²², Joanne Lea²³

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Advances in Biomolecular Archaeology

Chairs: Ana Morales and Meradeth Snow

Dongya Yang¹, Antonia Rodrigues¹, Thomas Royle¹, Christina I Barron-Ortiz², Antonia T. Rodrigues¹, Jessica M. Theodor³, Brian P. Kooyman³, Camilla F. Speller⁴, Meradeth H. Snow⁵, Ana Morales³, Nasreen Broomand⁶, Jacob Sedig⁶

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Çatalhöyük: Then and Now

Chair: Lindsay Der

Marek Z. Baranski¹, Lindsay Der², Sean Doyle³, Lisa Guerre⁴, Kathryn Killackey⁴

(¹Academy of Fine Arts in Gdansk) (²University of British Columbia) (³McMaster University) (⁴Çatalhöyük Research Project)

The Archaeology of Gender at Thirty-something

Chair: Robyn Crook

Jenna Hurtubise¹, Matthew Helmer^{2,3}, Lucía Watson Jiménez⁴, Krzysztof Makowski Hanula⁴, James Aimers⁵, Chelsea Blackmore⁶, Sandra E. Hollimon⁷, Robyn Crook⁸, Sarah Milledge Nelson⁹

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The Legacy of Calgary Archaeology and Chacmool

Chairs: Scott Raymond and Geoffrey McCafferty

Michael C. Wilson¹, William Byrne, Robert R. Janes², Gerald A. Oetelaar³, Jonathan C. Driver⁴, Lesley Nicholls, Alice B. Kehoe⁵, Jerimy J. Cunningham⁶, A. C. MacWilliams, Brian Kooyman³, M. Anne Katzenberg³, James Helmer³, Peter Dawson³, Peter Schledermann⁷, Brian Vivian⁸, Nicholas David³, Diane Lyons³, Scott Raymond³, Richard Callaghan³, Christy de Mille⁸, Geoff McCafferty³, Kathryn Reese-Taylor³

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Current Archaeological Research in Western Canada

Chairs: Daniel A. Meyer and Dale Walde

Dale Walde¹, Margaret Patton¹, Shalcey Dowkes¹, Tatyanna Ewald¹, Kelsey Pennanen¹, Robert Bird¹, Matthew Abstosway¹, Daniel A. Meyer², Lance Evans³, Leslie (Butch) Amundson⁴, Margaret Kennedy⁵, Brian Reeves¹, Kevin Grover⁴, Grant Wiseman⁴, Lindsay Amundsen-Meter², David Meyer⁵, Shawn Bubel⁶, Gerald A. Oetelaar¹, Trevor Peck⁷, William Perry⁸, Sarah Woodman⁹, Joshua Read⁶, Jason Roe², Derek Foster², Brian Vivian², Michael C. Wilson¹⁰, Katie Burdeyney⁵

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Radical Archaeological Theory for the Future

Chairs: Michelle Turner and Lucy Gill

Rosemary A. Joyce¹, Jerimy J. Cunningham², Lucy Gill¹, Michelle Turner³, Sophie Moore⁴, Lewis Borck⁵, Mitch Hendrickson⁶, H. Martin Wobst⁷

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Urban Commerce in the Ancient Americas

Chair: Elizabeth Paris

Elizabeth H. Paris¹, Tatsuya Murakami², Sarah C. Clayton³, Geoffrey McCafferty¹, Alanna Ossa⁴, Roberto Lopez Bravo⁵, Els Barnard⁶, Bernadette Cap⁷, Eleanor M. King⁸, Marilyn Masson⁹, Scott Hudson¹⁰

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Cross-cultural Approaches to Costume and Identity

Chair: Sharisse McCafferty

Sharisse McCafferty¹, Geoff McCafferty¹, Karen O'Day², Laura Wingfield³, Joanna Casey⁴, Lisa Overholtzer⁵, Thania E. Ibarra⁶, Stacy B. Schaefer, Billie Follensbee⁸, Christina T. Helperin⁹, Zachary X. Hruby¹⁰, Ryan Mongelluzzo¹¹, Virginia Miller¹², Ruben Maldonado, Helen R. Haines¹³, Aaron Shugar, Cara Grace Tremain¹⁴, Karon Winzenz¹⁵

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Central American Archaeology: The Next Generation

Chairs: Adam Benfer and Elisa Fernández-Leon

Mikael J. Haller¹, Benjamin Acevedo Peralta², Carolina Cavallini M.², Michelle Jones², Yahaira Núñez Cortés³, Larry Steinbrenner⁴, Alanna S. Radlo-Dzur⁵, Lorelei Platz², Fernando Camacho M., Emilie LeBrell⁶, Carrie L. Dennett^{4,7}, Adam Benfer⁶, Jason Paling⁸, Justin Lowry⁹, Hannah Dutton¹⁰, Irene Torreggiani¹¹, Lucy Gill¹², Diewertje van Boekel¹³, Madooka Uemurua¹⁴, Hiroshi Minami¹⁵, Sagario Balladres N.¹⁶, Leondaro Lechado R.¹⁶, Marie Kolbenstetter¹⁷, Franziska Fecher¹⁸, Markus Reindel¹⁹, Juan Carlos Fernandez-Diaz²⁰, Anna Cohen²¹, Christopher Fisher²², Rocío María Lourdes Herrera Reyes²³, Rosemary Lieske²⁴

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Forerunners, Fantastic Finds, and Future Directions: Cultural Resources Management Yesterday, Today and Forever

Chairs: Laura Nuttall and Elizabeth Robertson

Amanda Wong¹, Corey Cookson², Kyle Belanger¹, Matt Rawluck¹, Braedy Chapman¹, Sean Pickering³, Eugene Gryba, Matt Rawluck¹, Tommy Ng³, Sarah K. Smith⁴, Jeremy J. Leyden⁵, Meaghan Porter⁵, Michael Turney⁶, Colleen Haukaas⁷, Courtney Lakevold⁷, Jason Gillespie⁸, Kendra Kolomyja⁹, Laura Roskowski-Nuttall⁵

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Learning from the Ancestors: Collaborative Work in the Management and Repatriation of Archaeological Human Remains

Chairs: Laure Spake and Chelsea Meloche

Chelsea Meloche¹, Laure Spake¹, Jessica Bardill, Alyssa Bader, Ripan Malhi, SING Consortium, Terence Clark², Jasmine Paul³, Steven Feschuk³, Raquel Joe³, Gary Coupland⁴, Alyson Holland⁵, Crystal L. Forrest⁶, Ronald F. Williamson⁷, Susan Pfeiffer⁴, Louis Lesage⁸, Ben Garcia⁹, Katherine Nichols¹, Ann Kakaliouras¹⁰

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The Future of Archaeology: How Technology Can Influence a Discipline

Chairs: Kelsey Pennanen and Peter C. Dawson

Scott Hamilton¹, Terrance H. Gibson², Colleen Hughes³, Madisen Hvidberg³, Christina Robinson³, Kelsey Pennanen³, Matthew Abtosway⁵, Alyssa Haggard³, Meaghan Peuramäki-Brown⁴, Jeffrey J. Werner⁵, Peter C. Dawson³

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Not Just about Punching Nazis Anymore: Archaeological Activism for the 21st Century

Chairs: Jessica Manion and Geoffrey McCafferty

Valorie V. Aquino¹, Chelsea Blackmore², Erin A. Hogg³, John R. Welch³, Amanda Lorenzini, Josue Gomez, Sarah Rowe⁴, Judy Sterner⁵

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Poster Presentations

Celise Chilcote¹, Cabrina C. Agawal¹, Andrea L. Waters-Rist², Menno L.P. Hoogland³, Sila Tiqi Huang⁴, Nicola Howard, Brendan Jenks⁴, Sebastian Cooper⁴, Sharisse McCafferty⁴, Geoff McCafferty⁴, Christina Poletto⁵, McCarthy Strachan⁶, Burke Robertson⁶, Logan Brady⁶, Connor Garrison⁶, Ben Sellers⁶, Morgan Scott⁶, Sarah Chiuntet⁶, Murphy Jones⁶, Aicha Kaoss⁶, Jack Wolter⁶

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IV PAST CHACMOOL CONFERENCES

“I believe in traditions; I believe in the idea of things being passed between generations and the slow transmission of cultural values through tradition”

—Graham Moore¹

Post-Pleistocene Man and His Environment on the Northern Plains

1st Annual Chacmool Conference Year of Conference: 1969²
 Proceedings Editors: R. G. Forbis, L. B. Davis, O. A. Christensen and G. Federichuk (1969)

Early Man and Environments in Northwest North America

2nd Annual Chacmool Conference Year of Conference: 1969²
 Proceedings Editors: R. A. Smith and J. W. Smith (1970)

Aboriginal Man and Environments on the Plateau of Northwest America

3rd Annual Chacmool Conference Year of Conference: 1970
 Proceedings Editors: A. H. Stryd and R. A. Smith (1971)

Historical Archaeology in Northwestern America

4th Annual Chacmool Conference Year of Conference: 1972³
 Proceedings Editors: K. R. Fladmark and R. M. Getty (1973)

International Conference on the Prehistory and Paleoecology of Western North American Arctic and Subarctic

5th Annual Chacmool Conference Year of Conference: 1972³
 Proceedings Editors: J. S. Raymond and P. Schledermann (1974)

Conference on Canadian Archaeology Abroad

6th Annual Chacmool Conference Year of Conference: 1973
 Proceedings Editors: P. L. Shinnie, J. H. Robertson and F. J. Kense (1976)

A Symposium on Primitive Technology and Art

7th Annual Chacmool Conference Year of Conference: 1974
 Proceedings Editors: J. S. Raymond, B. Loveseth, C. Arnold and G. Reardon (1976)

¹ Cited in the 28th Annual Chacmool Conference Proceedings *Shallow Pasts, Endless Horizons: Sustainability and Archaeology* edited by Julian Favaro and Bob Patalano.

² The Chacmool Archaeological Association was officially founded in 1968. The 1st Annual Chacmool Conference was held on January 25th 1969 and the 2nd Annual Chacmool Conference was held in November of 1969 (Michael Wilson, 2016).

³ The 4th Annual Chacmool Conference was held from February 4–6th 1972 and the 5th Annual Chacmool Conference was held in November of 1972 (Michael Wilson, 2016).

Archaeology of Western Canada: A Tribute to Calgary's 100th Anniversary

8th Annual Chacmool Conference

Year of Conference: 1975

Prehistory of the North American Sub-Arctic: The Athapaskan Question

9th Annual Chacmool Conference

Year of Conference: 1976

Proceedings Editors: J. W. Helmer, S. Van Dyke and F. J. Kense (1977)

Diffusion and Migration: Their Roles in Cultural Development

10th Annual Chacmool Conference

Year of Conference: 1977

Proceedings Editors: P. G. Duke, J. Ebert, G. Langemann, and A.P. Buchner (1978)

Megaliths to Medicine Wheels: Boulder Structures in Archaeology

11th Annual Chacmool Conference

Year of Conference: 1978

Proceedings Editors: M. Wilson, K. L. Road and K. J. Hardy (1981)

Networks of the Past: Regional Interaction in Archaeology

12th Annual Chacmool Conference

Year of Conference: 1979

Proceedings Editors: P. D. Francis, F. J. Kense and P. G. Duke (1981)

Approaches to Algonquian Archaeology

13th Annual Chacmool Conference

Year of Conference: 1980

Proceedings Editors: M. G. Hanna and B. P. Kooyman (1982)

Directions in Archaeology: A Question of Goals

14th Annual Chacmool Conference

Year of Conference: 1981

Proceedings Editors: P. D. Francis and E. C. Poplin (1982)

Carnivores, Human Scavengers and Predators: A Question of Bone Technology

15th Annual Chacmool Conference

Year of Conference: 1982

Proceedings Editors: G. M. LeMoine and A. S. MacEachern (1983)

Status, Structure and Stratification: Current Archaeological Reconstructions

16th Annual Chacmool Conference

Year of Conference: 1983

Proceedings Editors: M. Thompson, M. T. Garcia and F. J. Kense (1985)

Man and the Mid-Holocene Climatic Optimum

17th Annual Chacmool Conference

Year of Conference: 1984

Proceedings Editors: N. A. McKinnon and G. S. L. Stuart (1987)

Ethnicity and Culture

18th Annual Chacmool Conference

Year of Conference: 1985

Proceedings Editors: R. Auger, M. F. Glass, S. MacEachern and P. H. McCartney (1987)

Diet and Subsistence: Current Archaeological Perspectives

19th Annual Chacmool Conference

Year of Conference: 1986

Proceedings Editors: B. V. Kennedy and G. M. LeMoine (1988)

Cultures in Conflict: Current Archaeological Perspectives

20th Annual Chacmool Conference

Year of Conference: 1987

Proceedings Editors: D. C. Tkaczuk and B. C. Vivian (1989)

Households and Communities

21st Annual Chacmool Conference

Year of Conference: 1988

Proceedings Editors: S. MacEachern, D. J. W. Archer and R. D. Garvin (1989)

The Archaeology of Gender

22nd Annual Chacmool Conference

Year of Conference: 1989

Proceedings Editors: D. Walde and N. D. Willows (1991)

Ancient Images, Ancient Thought: The Archaeology of Ideology

23rd Annual Chacmool Conference

Year of Conference: 1990

Proceedings Editors: A. S. Goldsmith, S. Garvie, D. Selin and J. Smith (1992)

Culture and Environment: A Fragile Coexistence

24th Annual Chacmool Conference

Year of Conference: 1991

Proceedings Editors: R. W. Jamieson, S. Abonyi and N. Mirau (1993)

The Archaeology of Contact: Process and Consequences

25th Annual Chacmool Conference

Year of Conference: 1992

Proceedings Editors: K. Lesick, B. Kulle, C. Cluney and M. Peuramaki-Brown (2002)

Debating Complexity

26th Annual Chacmool Conference

Year of Conference: 1993

Proceedings Editors: D. A. Meyer, P. C. Dawson and D. T. Hanna (1996)

Ancient Travelers

27th Annual Chacmool Conference

Year of Conference: 1994

Proceedings Editors: C. Allum, J. Kahn, C. Cluney and M. Peuramaki-Brown (2002)

Archaeology into the New Millennium: Public or Perish

28th Annual Chacmool Conference

Year of Conference: 1995

Proceedings Editors: B. Cripps, R. Dickau, L. J. Hartery, M. Lobb, D. A. Meyer, L. Nicholls and T. Varney (2003)

Eureka: The Archaeology of Innovation and Science

29th Annual Chacmool Conference

Year of Conference: 1996

Proceedings Editors: R. Harrison, M. Gillespie and M. Peuramaki-Brown (2002)

The Entangled Past: Integrating History and Archaeology

30th Annual Chacmool Conference

Year of Conference: 1997

Proceedings Editors: M. Boyd, J. C. Erwin and M. Hendrickson (2000)

On Being First: Cultural Innovation and Environmental Consequences of First Peopling

31st Annual Chacmool Conference

Year of Conference: 1998

Proceedings Editors: J. Gillespie, S. Tupakka and C. de Mille (2001)

Indigenous People and Archaeology: Honouring the Past, Discussing the Present, Building for the Future

32nd Annual Chacmool Conference Year of Conference: 1999
 Proceedings Editors: T. Peck, E. Siegfried and G. A. Oetelaar (2003)

Art for Archaeology's Sake: Material Culture and Style across the Disciplines

33rd Annual Chacmool Conference Year of Conference: 2000
 Proceedings Editors: A. Waters-Rist, C. Cluney, C. McNamee and L. Steinbrenner (2005)

Space and Spatial Analysis in Archaeology

34th Annual Chacmool Conference Year of Conference: 2001
 Proceedings Editors: E. C. Robertson, J. D. Seibert, D. C. Fernandez and M. U. Zender (2006)

Apocalypse Then and Now: A Conference about Archaeology and World's End

35th Annual Chacmool Conference Year of Conference: 2002
 Proceedings Editors: N/A

Flowing through Time: Exploring Archaeology through Humans and Their Aquatic Environment

36th Annual Chacmool Conference Year of Conference: 2003
 Proceedings Editors: L. Steinbrenner, B. Cripps, M. Georgopoulos and J. Carr (2008)

Que(e)rying Archaeology

37th Annual Chacmool Conference Year of Conference: 2004
 Proceedings Editors: S. Terendy, N. Lyons and M. Janse-Smekal (2009)

Tools of the Trade: Methods, Techniques and Innovative Approaches in Archaeology

38th Annual Chacmool Conference Year of Conference: 2005
 Proceedings Editors: J. Wilkins and K. Anderson (2009)

Decolonizing Archaeology: Archaeology and the Post-Colonial Critique

39th Annual Chacmool Conference Year of Conference: 2006
 Proceedings Editors: P. Bikoulis, D. Lacroix and M. Peuramaki-Brown (2009)

Eat, Drink, and Be Merry: The Archaeology of Foodways

40th Annual Chacmool Conference Year of Conference: 2007
 Proceedings Editors: N/A

It's Good to be King: The Archaeology of Power and Authority

41st Annual Chacmool Conference Year of Conference: 2008
 Proceedings Editors: S. Morton and D. Butler (2011)

Identity Crisis: Archaeological Perspectives on Social Identity

42nd Annual Chacmool Conference Year of Conference: 2009
 Proceedings Editors: L. Amundsen-Meyer, N. Engel and S. Pickering (2010)

Archaeology in the Public Eye

43rd Annual Chacmool Conference

Year of Conference: 2010

Proceedings Editors: N/A

Climates of Change: The Shifting Environment of Archaeology

44th Annual Chacmool Conference

Year of Conference: 2011

Proceedings Editors: S. Kulyk, C. G. Tremain and M. Sawyer (2014)

War and Peace: Conflict and Resolution in Archaeology

45th Annual Chacmool Conference

Year of Conference: 2012

Proceedings Editor: A. Benfer (in prep.)

Trading Spaces: The Archaeology of Interaction, Migration and Exchange

46th Annual Chacmool Conference

Year of Conference: 2013

Proceedings Editors: J. Manion and M. Patton (2015)

Breaking Barriers

47th Annual Chacmool Conference

Year of Conference: 2014

Proceedings Editors: R. Crook, K. Edwards and C. Hughes (2015)

Shallow Pasts, Endless Horizons: Sustainability and Archaeology

48th Annual Chacmool Conference

Year of Conference: 2015

Proceedings Editors: J. Favreau and R. Patalano (2017)

Profane, Outlawed, and Prohibited: The Archaeology of Taboo

49th Annual Chacmool Conference

Year of Conference: 2016

Proceedings Editors: E. M. Peschel (in prep.)

Chacmool at 50: The Past, Present, and Future of Archaeology

50th Annual Chacmool Conference

Year of Conference: 2017

Proceedings Editors: K. Pennanen and S. Goosney

Chacmool as Community

51st Annual Chacmool Conference

Year of Conference: 2018

Proceedings Editors: TBD



PART I

CHACMOOL: A LEGACY

THE ORIGINS OF CHACMOOL AND THE EARLY CHACMOOL CONFERENCES: A RETROSPECTIVE

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INTRODUCTION

What is history? Julian Barnes in his 2011 novel, *The Sense of an Ending*, wrote that “History is that certainty produced at the point where the imperfections of memory meet the inadequacies of documentation.” There is high irony here, because Barnes was “quoting” a fictional French philosopher, Patrick Lagrange, as recited (and invented) by an equally fictional precocious schoolboy in reply to a master at school. Nevertheless, in this retrospective I readily acknowledge both the imperfection and the inadequacy, and expect that some details will be subject to correction if not outright challenge. I do hope to convey, at least, a sense of the emotion and aspirations involved in the origins of Chacmool and the Chacmool Conferences, both of which arose directly from the ideas and efforts of undergraduate students. Part of this paper is a personal memoir as well because the strength of my commitment had roots reaching back to my childhood; I am certain that the same can be said about all of the Chacmool founders. Given the newness

of the Archaeology program, our aspirations to create a society and a conference might not have been able to emerge even after two or three years of university courses, were it not for our established personal fascination with the discipline

Chacmool as a student society was established in 1967 but early records are scant and there was even uncertainty about when the first Chacmool Conference had been held. Having been the first Chacmool president and chair of the first conference, I would be expected to remember such a thing indelibly. That memory, however, was clouded by the timing of later conferences; and my surviving notes were incomplete, the legacy of many subsequent moves. Fortunately, an authority emerged in form of letters written by my late mother, Lucilla Wilson. We were early post-war migrants to Canada, and from 1950 onward she had written regular Boswellian epistles to our family in England about our heroic progress in our new home, especially trumpeting the achievements of her children. Upon the

passing of our godmother in England, my sister Valerie was given a bundle of these letters. Among those for 1969 was a useful account of the meeting, confirming the date and providing important details. It can be confirmed, then, that on January 25, 1969, Chacmool held its first conference in what was designed from the beginning to be an annual conference series intended to be interdisciplinary, with archaeology set strongly in its paleoenvironmental context.

Though the first was a very tentative step, more than 100 people attended despite the bitter cold. It happened! It worked! The audience included professional and avocational archaeologists, Quaternary scientists, biological and agricultural scientists, and more. In fact, building on success and learning from experience, Chacmool hosted three conferences in 1969-1970, as the executive soon realized that a fall conference would be a better idea.

As starry-eyed as we were, the undergraduate founders of Chacmool could not have imagined the trajectory that the society and the Chacmool Conferences would take over the ensuing five decades. Our student bravado reflected not only the distinctive nature of the Department of Archaeology but by also the “We try harder” attitude of a brash, young university that had just received its autonomy from the University of Alberta. To this was added the lingering euphoria, if not jingoistic pride, from Canada’s Centennial Year in 1967, the success of Expo ’67, and the belief that Canada had somehow muscled its way onto

the global stage. I expand on these themes below.

Early Days at UAC

The University of Alberta at Calgary (UAC) had its roots in classrooms at the Southern Alberta Institute of Technology, which in turn had been created long before out of a brash, short-lived, upstart “university,” variously called Calgary College or the University of Calgary, which that existed between 1911 and 1914. At that point, the upstart’s wings were clipped by a provincial government beset by wartime budget reallocations (if not inter-city rivalry), and only the applied programs continued, under the aegis of SAIT. Calgary Normal School relocated to the SAIT campus in 1922. The idea of a university continued to simmer, and the Normal School at SAIT became Calgary’s extension of the University of Alberta’s Faculty of Education in 1945. A citizens’ Calgary University Committee was formed in 1946 and the number of first- and second-year course offerings steadily increased to include University of Alberta extension Education, Arts and Science, Commerce, Engineering, and Physical Education classes by the 1950s, at “The University of Alberta in Calgary” (UAC) (University of Calgary 2018).

A separate campus for UAC opened in 1960 with two squat, rectangular buildings gracing a windswept grassland in northwest Calgary: prosaically labelled “Science A” and “Arts and Administration,” they remain

in use today. Full degrees were offered from 1962 onward.

My story no doubt paralleled that of my fellow undergraduates in the Archaeology Honours program: the program was new and not well-known and we all came to it because we were building upon long-held interests. In my case, the link was a close one: I knew the campus area well, even before the campus was built. As a child living on the hillslope in nearby Montgomery, I had roamed these grasslands extensively, filling my pockets with plants, insects, frogs, mice, and things that I thought might be fossils. Around the age of seven, I found and lovingly excavated a hilltop “deposit” of modern marine oyster shells, apparently the refuse from a decades-old picnic. On Montgomery Cliffs around 1955 I saw an intriguing pinkish layer that I learned, years later, was the Mazama tephra. Enlarging the root-cellar beneath our house, we again found the pinkish layer, as well as some small bones that I later learned were bison carpals. My fate was sealed. I visited it first as a Junior High School student in 1961. As a Calgary School Fair winner in 1964 (for a project about dinosaurs, my other obsession at the time) I was part of a group of students treated to a special tour of the university campus, now called “The University of Alberta, Calgary”. There were displays and demonstrations, including one in which chemistry professor Dr. James B. Hyne and his assistant, Mr. Gebauer, dropped pieces of metallic sodium into a giant container, precipitating a delightful explosion

and scaring the heck out of the magpies and coyotes outside. We were entranced.

An Archaeology Department

The Glenbow Foundation and Museum, founded and for many years funded by legendary oilman and lawyer Eric L. Harvie, had initiated an archaeology program, with Dr. Richard G. (Dick) Forbis at the helm from 1957 onward. Dick brought a wealth of experience about Great Plains archaeology and set to work expanding our knowledge of southern Alberta pre-contact bison jumps and campsites, bringing public attention to a subject sadly neglected in school curricula. Starting in 1964, the Glenbow collections were temporarily exhibited in Calgary’s old sandstone Courthouse, until the 1966 founding of the Glenbow Alberta Institute, now the Glenbow Museum. As a high school student, I wrote to Dr. Forbis asking if there were summer work positions, but was turned down. Nevertheless, by 1964, there was also a thriving Archaeological Society of Alberta, Calgary Centre, and there I was welcomed with open arms. These were very knowledgeable and supportive people, many from the oil industry, and many with postgraduate degrees. There I met Dick Forbis in person and heard Calgary vertebrate paleontologist and Union Oil geologist Grayson Meade talk about his earlier work at Friesenhahn Cave in Texas. That same year, as I looked forward to attending UAC, it was announced that the young university was creating a free-standing Department of Archaeology, built around now-Professor

Forbis and Professor Richard S. (Scotty) MacNeish, with Scotty as the Chair. Dick had already taught since 1960 as a part-time sessional instructor in the Sociology and Anthropology Department, but he had more ambitious plans. Scotty, after many years as senior archaeologist at the National Museum of Canada, shared those plans and would only come if it was to a separate, innovative Department of Archaeology. Thus was born a noble experiment, with support again from Eric Harvie.

Our program was built in part upon a European model of Archaeology as a distinct discipline, born from 19th-century Surveying and Geography and with strong linkages to the Natural Sciences and landscape studies; rather than the American model, born in part from 19th-century antiquarianism, in which Archaeology would be a sub-discipline of Anthropology (see, for example, Johnson 2007 for the landscape roots of British Archaeology). Yet we still took Anthropology and Linguistics classes. The rationale for a strong natural-science linkage, a “conjunctive approach” to Archaeology, was laid out in detail by Scotty in Volume 1 of *The Prehistory of the Tehuacan Valley* (MacNeish 1967), with his wheel-diagram of “the interdisciplinary solution of archaeological problems” uncannily evoking a Mesoamerican calendar. The approach was reinforced also by the Calgary Centre of the Archaeological Society of Alberta, several members of which were oil geologists interested in Archaeology. For them it was eminently logical that a discipline interested

in stratigraphy, paleoenvironments, lithic materials, and subfossil remains should be linked in some way to Geology!

By the time I started at UAC in 1965 there were more buildings, including the small Library Block, a Physical Education Building, Calgary (now Craigie) Hall, and a newly opened five-story “Science B,” known as “The Tower.” Everything is relative: today “The Tower” (which we viewed with awe) is overshadowed and barely noticeable among much taller buildings. Archaeology was for a time in the basement of the Library Block, but moved to Science A. The department now also included Valdimir Markotic and ethnologist Al Heinrich, as well as graduate students Brian (Barney) Reeves and Charles (Charlie Brown) Eyman. Barney and Charlie, as sessional instructors, were teaching the Introductory Archaeology and Physical Anthropology courses, respectively. Barney, an Albertan, had worked with Dick Forbis at the Glenbow and had undergraduate degrees in Philosophy and Geology. Grayson Meade was enlisted on contract to teach a Mammalian Vertebrate Paleontology course. Our secretary, Sharon Nagle, was well-versed in program details and administrative procedures, and established the lasting tradition of shepherding students in the organization of Chacmool conferences, a role for which Lesley Nicholls became legendary a decade and more later. Happily, the university recognized that “secretaries” were, in fact, shouldering much of the administrative load and deserved to be called administrative officers (and ultimately

managers) and administrative assistants.

Autonomy and the Centennial Year

Calgarians, of course, competed in every way with Edmontonians for prestige, so there was a push for the autonomy of the Calgary campus from its University of Alberta parent (an adoptive parent, if we argue the case of the 1911-14 experiment). Autonomy came in small steps, as the larval “University of Alberta, Calgary” became in 1964 “The University of Alberta at Calgary” and finally emerged from its pupa to spread its wings as “The University of Calgary” in 1966, with its first convocation in 1967. Students had been demonstrating in support of these moves from 1963 onward, so this success brought a strong feeling of empowerment, and the significance of the growing Department of Archaeology was doubly underscored as an innovative initiative in a new university.

The year 1967 was Canada’s Centennial year and already by 1966 people across the nation were planning individual and group Centennial projects involving the number “100.” My resolution was to hike 100 miles in Banff and Yoho National Parks, and I managed to exceed that target. Canadians were excited and motivated, Expo ’67 in Montreal (a Category One World’s Fair) was a resounding success, and we were all on top of the world. The national push for innovation, empowerment, and action was more manna for idealistic students and without a doubt contributed to our founding of Chacmool as a student society.

The Roots and the Rise of Chacmool

Chacmool as a society was founded by undergraduate Honours majors in 1967, within three years of the department’s inception. I was one of the third group of Honours (4-year) Archaeology majors, starting in 1965. Bill Byrne was first, starting even before the department officially came into being. Upon the advice of Dick Forbis, Bill took a slate of first-year general and Anthropology courses and could then move seamlessly into the new Archaeology program. Laurie Milne and Gloria Fedirchuk were the second group of Honours majors; and the next intake brought Ole Christensen, Ron Getty, and me, plus physical anthropology student Brian Averill. We all came with well-established interests in Archaeology. There was also a growing number of 3-year Archaeology majors, and as word about the program spread, a rapidly growing number of students from other programs – Arts, Social Science, and Science – took Archaeology courses as electives. For many, it was their first discovery of Archaeology aside from high school classes about “the classical roots of civilization,” so students from other programs began to transfer into Archaeology, too. Archaeology continued, after its emergence, to require its students to take Introductory Anthropology and Social Anthropology before the first Archaeology courses, and Linguistics in the second year.

With Scotty’s arrival and the founding of a free-standing Archaeology department, there ensued a migration to Calgary of graduate students, especially from eastern Canadian universities. Their numbers and their excitement

about the program made the department an even more vibrant environment for undergraduates as well. Given the department's philosophy and firmly supported by Scotty and Dick, the Honours undergraduate majors were closely integrated with graduate students and we were even given shared office space to take part in project work. Out of this grew the dialogue that led to the formation of Chacmool as an undergraduate society. We were a dedicated but naïve group of undergrads, heady with dreams for the future and inordinately proud of our upstart institution. Scotty was making a career of seeking "origins" – a proverbial salmon ever swimming upstream in the river of time – which made him a media darling and helped thereby to raise the university's and department's international profiles. To balance this tendency to hyperbole, we had Dick's legendary careful scholarship and profound critical thinking.

Archaeology undergraduates were treated to a succession of eminent and often (for the students) unexpected visitors. One day in Grayson Meade's course, Texas archaeologist Glen Evans walked into the class and ended up spending much of the afternoon with the students. He and Grayson had excavated the Plainview Site in the late 1940s. Marie Wormington, James Griffin, Ignacio Bernal, and many others came to work with Dick and Scotty; and all visitors were introduced to the students.

This was a small university, so individual faculty members taught a wide range of subjects, and cross-departmental

linkages and cross-listing of some courses made programs more viable. A small number of senior-level courses might be, at the choice of the student, ARCH, GEOL, or GEOG, somewhat to the dismay of the records people in the Registrar's office. Our Soils class was taught on contract by Nat Rutter, then of the Geological Survey of Canada. Geology professor Len Hills arrived in 1966 and with his broad Quaternary and paleoenvironmental interests was soon welcoming Archaeology students to his Geology classes and serving on Archaeology thesis committees. Such circumstances fed, by intention, a strong interdisciplinary sentiment that has stayed with me throughout my career. Publication of the first of Scotty's and Douglas Byers' Tehuacan volumes, laying out the interdisciplinary manifesto, sealed the deal for the students. Many of us ordered copies of Volume 1 as soon as it appeared. Clutching our Tehuacan volume like Chairman Mao's Little Red Book, we had our marching orders: the people of Chacmool ventured forth.

Chacmool was guided by faculty advisor Brian Reeves, still a graduate student and a sessional instructor, but already a respected researcher with summer field projects underway in southern Alberta. To qualify for Students' Union funding, we needed to be an undergraduate association, so undergraduates formed the executive core; but graduate students eagerly took part in our activities. I was elected president, Ron Getty was vice-president, Gloria Fedirchuk was secretary-treasurer, and Ole Christensen was

resident muse, full of ideas.

The name “Chacmool” was a nod to Scotty’s Mesoamerica class; I first heard the suggestion from Ole Christensen but it might even have come from Scotty himself, in conversation with Ole. Most likely, it came from Ole’s reaction to one of Scotty’s slide presentations, as a spontaneous realization that this would be an evocative logo and name for our society. Chacmools were intermediaries with the gods – they were both corporeal and supernatural, carrying offerings in their bowls. The name itself, like many attributions by early archaeologists, was probably misapplied by them. As an association we clearly also appropriated a symbol, taking it out of its context, but it has served the University of Calgary’s Archaeology program well: a Google search of “Chacmool” now brings up many links to our association, the conferences, and the University of Calgary. Concerned that the name might not be initially recognized externally as that of our group, I added “The Archaeological Association of the University of Calgary”.

We organized regular departmental talks, with graduate students and faculty presenting project findings. We held field trips and even small-scale excavations. We held cross-country ski trips and day-trips to scenic places. I was not very adept socially, but my status was secured by the fact that I owned a car. Len Hills of the Geology Department had a long interest in Archaeology and joined in our Mona Lisa site salvage excavations in November of

1968 at a construction site near what later became Mount Royal Village in downtown Calgary -- a volunteer effort by our core group. The snow was flying in bitter winds and the ground was frozen, but we managed to salvage part of downtown Calgary’s oldest bison kill, about 8100 radiocarbon years old – before provincial protection of archaeological sites. I wrote a report on this excavation early in my graduate-student years (Wilson 1974). The planned “part II” of that article grew instead into a portion of my doctoral dissertation when opportunities arose for revisits to the site in the late 1970s (Wilson 1983).

In early 1968 we all were shattered when Scotty called a meeting of all students, faculty, and staff, and announced that he would shortly be leaving for the Peabody Institute in Andover. We were stunned: people in the room were crying, especially graduate students who had counted on continuing under his guidance. The world seemed to be collapsing around us. Jane and Dave Kelley arrived later in 1968 and Jane, in particular, played a vital role in re-establishing the esprit-de-corps at a difficult time. Their house soon became a focus for Archaeology receptions and parties, a vital social hub for a growing department.

The Chacmool Conferences

Scotty’s announcement came not long after we began to develop plans for a Chacmool conference. Early in 1968, Barney had suggested that Chacmool could hold a workshop or conference, building on the

interdisciplinary blueprint provided by Scotty. The Chacmool executive embarked on plans, and with Barney's guidance, kept the initiative on-track despite Scotty's departure. It did not occur to us that sponsoring an annual interdisciplinary conference was not a typical undergraduate activity, so we went ahead with our first: the admittedly gender-insensitive *Post-Pleistocene Man and his Environment on the Northwestern Plains*. Held on January 25, 1969, it was a success, with more than 100 people attending despite the bitter weather: the temperature was -32° C and the wind chill was -57° C. Avocational archaeologists (Archaeological Society of Alberta, Calgary Centre) were well represented. Professors Alan Bryan and Ruth Gruhn (University of Alberta) drove down from Edmonton, and scientists from the Experimental Station of Agriculture Canada came north from Lethbridge. The University of Calgary was well represented by attendees from several departments, including faculty and students.

There was a day of presentations and as Chacmool president, I gave the opening and closing addresses. Presenters of talks included Alex Johnston and Larry Lutwick from Agriculture Canada; and Barney Reeves, George W. Arthur (Archaeology graduate student, from Montana), Len Hills, and Michael Wilson from the University of Calgary. A panel discussion was chaired by graduate student Les Davis (from Montana) and included Wilson, Lutwick, Johnston, and Reeves. The event was followed by a banquet, with Dick Forbis as the featured

speaker, presenting a summary view of developments in southern Alberta archaeology. Dick told us afterward that he had feared that the conference would not succeed, but he was extremely gratified that it went so well.

The Proceedings volume was edited by Davis, Fedirchuk, Christensen, and Forbis, and appeared later that year published by the Students' Press -- itself a fledgling operation. The volume went through several printings.

Plans immediately followed for a second conference, "Early Man and Environments in Northwest North America," held in either late 1969 or early 1970; and then a third, "Aboriginal Man and Environments on the Plateau of Northwest America," in fall of 1970. Three conferences were held in two years because the Chacmool executive and the department realized that fall would be a better time for a conference in terms of both weather and conflicts with other conference times, even though it meant planning in spring and possible loss of continuity over the summer. The continuity problem was largely remedied in later years through assistance from departmental administrative staff. The proceedings from Conferences 2 and 3 were again promptly published, and the Chacmool Conferences were well on their way. Barney Reeves, it must be noted, continued as Faculty Advisor, so his guiding hand was felt throughout the early Chacmool years and he deserves a great deal of credit for both concepts and continuity.

Coda

It was fifty years ago that we started Chacmool and its conferences. If Chacmool had been a Centennial project, it has come halfway toward its goal, but of course, such initiatives are hoped to be open-ended, to become traditions. I hope the society and the conferences will continue and thrive. For me, the interdisciplinary philosophy brought by Scotty, Dick, and Barney to the Department of Archaeology and, in turn, to the first Chacmool Conferences, set me on a path that defined my career. Although my degrees were in Archaeology (BA, PhD) and Anthropology (MA), I taught in departments of Geology and Geography, ultimately becoming chair of a Geology/Earth Science department. My research has continued to be interdisciplinary, often incorporating ideas from those undergraduate years.

Looking back to the first Chacmool Conference, I find it hard to imagine that we were much more than children, but we were of course undergraduates, full of the spirit of those optimistic times. Careers lay ahead; yet in our naïveté, we believed we had already become, in our values and philosophies, much of what we would ever become. We were idealistic, to a degree self-righteous. But still being children, in some unmeasurable way, was a very good thing. To be good scientists, good scholars, is to preserve the enthusiastic curiosity of childhood: to crave learning and always to marvel about the wonders around us, to be inquisitive without being self-conscious. Adulthood can bring social or professional

constraints, threads of cynicism, fears of global issues, greater concerns about intercultural sensitivity (none of these being necessarily “bad” things), and paradoxically the ever-increasing and at times immobilizing burden of knowledge itself. I am thankful that for the origins of Chacmool we were like children, and I hope that we remain so, in those important ways.

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REFERENCES CITED

- Barnes, Julian.
2011 *The Sense of an Ending*. Jonathan Cape, UK, and Knopf, New York.
- Johnson, M.
2007 *Ideas of Landscape*. Blackwell Publishing, Oxford, UK.
- MacNeish, R.S.
1967 An interdisciplinary approach to an archaeological problem. In *The Prehistory of the Tehuacan Valley, Volume 1: Environment and Subsistence*, edited by D.S. Byers, pp. 14-24. University of Texas Press,

Austin, TX.

2018 About the University of Calgary:
Historical Highlights. Internet online
resource, accessed January 15, 2018.
[http://www.ucalgary.ca/pubs/calendar/
current/about-uofc-main-historical-
highlights.html](http://www.ucalgary.ca/pubs/calendar/current/about-uofc-main-historical-highlights.html)

Wilson, M.C.

1974 Fossil bison and artifacts from the
Mona Lisa Site, Calgary, Alberta. Part
1: Stratigraphy and artifacts. *Plains
Anthropologist* 19(63): 34-45.

1983 *Once upon a River: Archaeology
and Geology of the Bow River Valley at
Calgary, Alberta, Canada*. National
Museum of Man Mercury Series,
Archaeological Survey of Canada Paper
114. 464 p. Ottawa.

THE FACES OF FUR TRADE ARCHAEOLOGY – AS SEEN FROM RESEARCH AT A NORTHERN FUR TRADE SITE, FORT VERMILION I, ALBERTA

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ABSTRACT

Fur trade archaeology began in Alberta in the early 1960s. Since then, its practitioners presented papers at the CHACMOOL Conference covering a diverse set of themes, with often changing research focus and perspectives. That shift in focus in fur trade archaeology was frequently subtle, rarely linear, nor did everyone agree on its direction. This paper examines the development of those perspectives and research methodologies, with examples from the North West Company (NWC)/Hudson's Bay Company (HBC) Fort Vermilion I (c.1798-1830), northern Alberta. After contemplating this site for nearly 20 years, the archaeological evidence has offered many potential historic realities. [I have placed I after Fort Vermilion to distinguish it from the later HBC Fort Vermilion II (c.1830-1930)

located downriver in the present community of Fort Vermilion, just to prevent confusion.]

INTRODUCTION

“For me, archaeology is not a source of illustrations for written texts, but an independent source of historical information, with no less value and importance, sometimes more important, than the written sources.”

- Michael Rostovtzeff 1927, “A History of the Ancient World: Volume II Rome”

Yes Indeed! Fur Trade Forts were Made of Wood

In his inquiry into Roman history, Michael Rostovtzeff is credited as the first scholar to merge the archaeological evidence with the written sources. As historical archaeology moves further into the 21st century, having survived 50 years as a discipline in Alberta, Rostovtzeff's approach to history stands as one of the discipline's basic tenets, regardless of how we practise it.

In 1975, I presented my first paper at the 8th Annual Chacmool Archaeology

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Conference Archaeology in Western Canada: A Tribute to Calgary's 100th Anniversary (1975) in Calgary, Alberta, about a sample of wood remains from a 19th century Hudson's Bay Company (HBC) fur trade post, Fort Victoria, Alberta (Pyszczyk 1977:223-235). I had learned that the documentary records from these sites were frequently silent on what types of wood its builders chose, and what human cultural filters were involved in that selection process. Rostovtzeff was right.

In this work I will use examples primarily from a late 18th century North West Company (NWC)/Hudson's Bay Company (HBC) fur trade post, Fort Vermilion I (c.1798-1830), to examine how fur trade archaeology has changed, what it has achieved, and where its research might be headed as we move further into the 21st century.

A Fort Worth Finding?

Where is Fort Vermilion I?

The year was 1998. We had just found the remains of the NWC/HBC Fort Vermilion I. While 35 years had passed since the first fur trade site had been excavated in Alberta, we still grappled with the basics, like finding and assessing Alberta's many forts. And, while this discovery was important for the local people to celebrate their history, at a scholarly level adding this post to our data base was also important, if we were ever to move away from the individual fort focus of interpretive methodology and investigate the fur trade at a regional level. Sometimes local

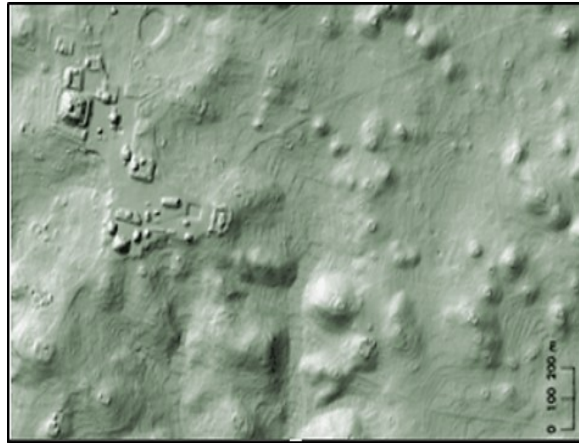


Figure 1A:
Lidar imagery of Mayan site of Caracol, 2008
(Courtesy Arlen Chase)

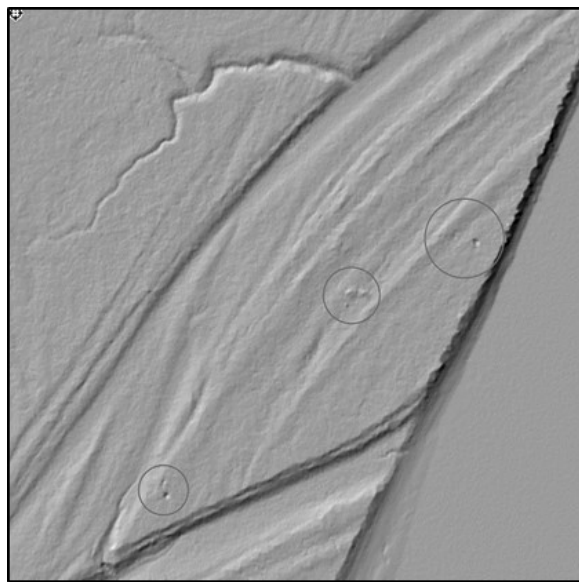


Figure 1B:
Lidar imagery of Fort Vermilion area
(Pyszczyk 2015)

politics married well with scholarly endeavours!

We didn't use LiDAR (Light Detection and Ranging) to help us find the site; it wasn't in general use then-even though it was already developed in the 1960s,

and applied during the 1971 Apollo 15 mission. Eventually, in 2008, archaeologists used it to find the jungle-covered Mayan site of Caracol (Figure 1A). No, instead we trudged through the dense boreal forest looking for mounds and depressions until we found the site. In 2012 we applied LiDAR imagery to the area to test if it would work on these less than spectacular fur trade remains.

Figure 1B on previous page shows the Lidar coverage of the Fort Vermilion I area. If we had not circled the anomalies in Figure 1B, would the fort anomalies, like those Mayan ruins, have jumped right out at you?

Archaeological Recovery and Recording Methods at Fort Vermilion

We started to excavate Fort Vermilion I in 1999. The NWC initially built the fort in 1798. The HBC took it over in 1821, and in c.1830 closed the fort and moved their operations downriver to a new site (which became the present community of Fort Vermilion). Few records remain from the HBC occupation, and not surprisingly, none from the NWC's operations. And, the surviving records contained few details about fort construction, layout and dimensions, the people and their lives, or fort operations.

A lack of documentary information about this and many other fur trade sites was one of the first reasons why archaeologists began excavating these forts in the 1960s. The Glenbow Institute and Parks Canada, under the direction of William Noble (1963), initiated research at Rocky Mountain House in 1963 as part of the Government of

Canada's National agenda to put more work into major Canadian historic themes such as the fur trade. They wanted to obtain reliable information regarding the physical nature of the fort, its dimensions, and layout, for on-site interpretation for the public. Later, the Province of Alberta expanded on the fur trade theme, investigating other fur trade sites (e.g., Forts Victoria, George, Dunvegan, and Buckingham House), using both the documentary and archaeological evidence.

At Fort Vermilion I there were no grandiose plans for restoration or interpretation (except in the minds of some local residents) because this place was isolated and difficult to access. So, why investigate it further? During our initial work, it became apparent that the archaeological remains were falling into the Peace River and collection of a sample before it was too late, was therefore justified. The Historic Resources Act (1973) became a major driver for the search, excavation, and protection of archaeological sites such as this. Archaeological Resource Management was the new buzz term and Fort Vermilion I, teetering on the edge the Peace River, met its goals.

Once we had established where the site was located, the next step was to excavate to retrieve some information about it. But, the basic information to be gathered and how to gather it, at any archaeological site, depended on 1) the physical nature of the site; 2) the investigator's research goals/objectives and paradigms; and, 3) sometimes the backgrounds of those investigators (i.e.,



Figure 2: Excavations of old cellar/pit, filled with refuse (sticking out of unit wall) at Fort Vermilion, 2016.

whether educated in history, anthropology, or archaeology departments). Each of these factors often changed from site to site over the years. Although we had to follow provincial guidelines, there was no uniform methodology set out on how to archaeologically investigate a fur trade fort. At Fort Vermilion I, we eventually settled on the two-tier recovery system that combined judgemental and random sampling strategies to gather both architectural/feature data and a representative sample of artifacts and faunal remains from the entire site (see Pyszczyk 2015:401-06; 2016, for details). The only restriction we faced at Fort Vermilion I was that because the site was falling into the Peace River, there was some urgency to salvage remains near the river terrace edge.

Finding answers to historic questions with archaeological remains is rarely a linear process. Archaeologists during the 1970s and 80s were growing aware that the way sites were formed historically affected both exca-

vation and analytical results (Schiffer 1972). Some of us incorporated this research approach to the fur trade (Prager 1980; Pyszczyk 1984). What was often not appreciated was that an understanding of archaeological formation processes at sites such as Fort Vermilion I was not the final goal of investigations, but a *necessary* step in proper excavation, research process, and interpretation of the remains.

Take, for example, the many cellars and pits present at this fur trade post (Figure 2). Often, they are filled with refuse. Over the years we spent dozens of hours carefully excavating them in arbitrary 5-10cm levels in the hopes that they would reveal some sort of chronological sequencing, and ultimately provide information about material consumption over time. We found no layering or chronological ordering in these deposits. In nearly every instance, these features contained secondary refuse – refuse taken from elsewhere and redeposited into the old cellar or privy hole (to fill it) once the building was

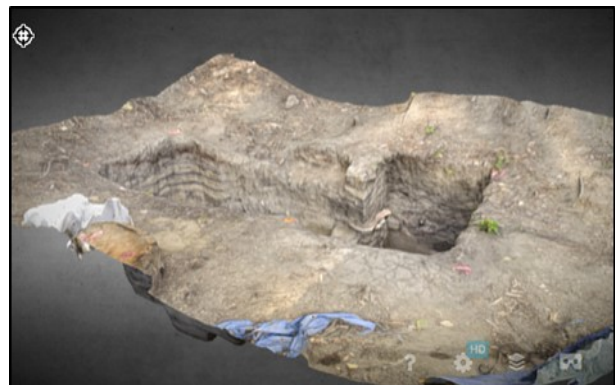


Figure 3: Photogrammetry images of privy/trash pit deposits at Fort Vermilion. Courtesy of Sarah MacDonald, Owen Murray. https://sketchfab.com/McDonald_Murray.

torn down. We could have simply scooped out these remains quickly (as Parks Canada did at some of their sites) and saved countless hours in excavation.

Capturing ‘More’ Archaeological Information

Our site, like many other fur trade sites, contained some very complex features and deposits, which often were difficult to capture by conventional photography and mapping techniques. Also, it was often very hard to present these deposits in any meaningful manner to a general public. Years ago, while excavating at Fort George, I experimented with three-dimensional drawings of archaeological features. The results were OK, but never really captured the richness and quality of those archaeological features or deposits at their time of exposure.

Bob Dawe suggested we try photogrammetry at Fort Vermilion I to better record those features (Figure 3). Photogrammetry has been around since the 19th century, but its application to archaeology was limited. With the emergence of computers, with vast amounts of storage space, and some new programs, this method was much easier to apply. Now I could rotate images of features at different angles to examine them or zoom in on certain spots in the unit that I wanted to look at more closely. Not only was this an invaluable archival tool, it was very important for display and accessibility to the site by the public in a museum or other interpretive setting.

The Fort Vermilion I Sample: Plugging the Holes in the Fur Trade Data

We are still in the data collection stage at Fort Vermilion I. Since beginning our investigations in 1999, we have excavated roughly 140 square metres of this site which is approximately 2000 square metres in size (these figures now include features outside the palisades and 2016 excavations). However, this sample is not all random and is only a 7% sample of that area. Many of our units are over a metre deep and all cultural deposits usually don’t start until 30cm-40cm below ground surface; therefore a tremendous amount of work is required. Even collection of basic information, such as determining the number of buildings or finding all the palisades, incomplete, and will probably have to be pursued by the next generation of archaeologists, if the site is still intact.

Fort Vermilion I is stratified – well, at least in some places (Figure 4). To better understand its stratigraphy, we carried out simulated flooding and trampling experiments in 2016. Our results indicate that the degree



Figure 4: Flooding, trampling experiment exposed. The two levels (level 1 = pebbles; level 2 = bottle caps) were separated by 5cm of river silt, then walked over for weeks. Excavation shows artifacts from both levels no longer separated on main pathway.

of stratigraphic separation that remained was proportional to the degree of human traffic. In areas of high human activity even a five-centimetre layer of silt between two anthrosols was insufficient to prevent artifact mixing, but much improved near the edges with less human traffic. Furthermore, we had not considered the Mennonite Factor in our experiment. One afternoon a group of visiting Mennonite children collected some of the artifacts in the experiment and placed them in neat piles along the trampling path. But, then, that behavior might not be so far removed from historical reality, where the fort's many children played.

The bigger methodological problem that faces fur trade archaeology is the spatial nature and scale of our inquiries. A quick read of fur trade history reveals that it was an inter-connected system often involving many forts spread over a very large area, and including Euro-Canadian, Indigenous and Métis people. Saying anything significant about archaeological representation of that regional history cannot be achieved by examining only the archaeological remains of one fort. It requires samples from other sites within that region, as well as from other regions. By 2015 the sample of fur trade sites investigated, while far from ideal, was sufficient to make some inter-site comparisons possible (Pyszczyk 2015). But, we still knew virtually nothing about the archaeology and history of the surrounding area. This place was already forgotten long ago by the people of the region.

Equally problematic was a poor knowledge about Indigenous peoples living in the region. Whenever we excavated a fur trade fort we acquired a primarily Euro-Canadian archaeological sample, but nothing that represented the indigenous populations living outside the fort's confines who traded at the fort. This deficiency has plagued fur trade archaeology for years and continues to do so, primarily because the sites representing those peoples are very hard to find and identify. In all of northern Alberta, so few protohistoric and historic Indigenous sites have been identified as to make comparisons impossible.

The 1827 HBC Fort Vermilion I documents indicate that Saulteaux, Beaver, Chipewyan, Iroquois and Freeman (mostly Métis) lived in the region either permanently, or followed a seasonal round harvesting available food resources (HBCA B.224/d/3:118-120). But, where did they live? While LiDAR can potentially help, at least with the identification of log cabin sites, here too problems exist. First, further examination of the fur trade records indicates that Freeman wintered as far away as Slave Lake, Hay River, and Red Earth River (HBCA B.224/a/2; B.224/a/3). These places were hundreds of kilometres away from the post in very remote areas, unlike the Métis settlements that sprang up around posts in the later 1830s: Fort Vermilion II, Edmonton, or Fort Victoria. Enormous amounts of LiDAR coverage would be needed to search for these sites.

Quite by accident, while experimenting with LiDAR imagery, we found a large

anomaly just southwest of the Fort Vermilion I site (see Figure 1B, showing a large depression; lowest circled area). Eventual ground-proofing in 2014 showed that it was a very large depression. Testing in 2016 indicated that the archaeological deposits were buried as deep in floodplain river silts as at Fort Vermilion I (perhaps even deeper), and the artifact content, in particular, a striped glass tubular bead (Figure 5) suggests that this feature was likely contemporaneous to at least some episodes of Fort Vermilion's occupation.



Figure 5: Rare, striped red and white glass tubular bead found southwest of the fort, near a large historic depression.

But, we have no idea who built it. It could potentially belong to Métis or Iroquois Freeman living near the fort. It could be a fort outbuilding or belong to an independent pedlar/trader operating in the area. And, if you look closely at the image in 1B, there may be another depression just north of it that we currently know even less about.

In 2016 a local resident showed me a map, drawn by one of the first white settlers in the area, of the hinterland west of Fort Vermilion I. The map contained the location of old trails, and where First Nations and Métis people camped and lived. It is presently uncertain just how reliable that information might be. We have yet to walk and survey the area to see what is up there, primarily because it is so remote. Also in 2016, I visited a very old Métis settlement, Carcajou, south of Fort Vermilion I, located along the Peace River. David Thompson shows it on his 1813 map as Wolverine Point, a very old place also known through oral tradition and historic documents as a Métis settlement (PAC H1/701/1813-14). But, we know virtually nothing about its early history or its people, or how it might relate to early Métis origins in the region. In short, the potential for a more regional approach, more inclusive of Indigenous and Métis populations, is present in the area; but lacking are interest and resources.

In Search of Meaning in Archaeological Remains via Fort Vermilion I

One of the major criticisms against historical archaeology has been its inability to add anything substantive to historical knowledge (Adams and Lunn 1990; Klimko 1994). Yes, investigation of sites such as Fort Vermilion I have added a few details to the few surviving fur trade documents. But, what is unique about a historical archaeological assemblage that documentary history could not address? A cursory look at some historic documents from Fort Vermilion I and the ac-

Fort Vermilion I Debt Lists, Inventories and Archaeological Remains

In the late 1970s, Prager (1980) demonstrated how incomplete the fur trade archaeological record was by comparing the Company inventories to the archaeological remains for both NWC and HBC posts. The few HBC employee debt lists (quantities and prices of goods bought at the Company stores by the men, or inventories available for Fort Vermilion I support her findings. For example, if we look at the items that HBC employee Joseph La Garde bought at the Fort Vermilion I Company store in 1825-6, only two articles (axes and razors) out of the 11 articles (or 18%) he bought would leave a trace in the archaeological record. Of the seven articles Joseph Lamprant bought in 1825-6, one article (axe) (or 14%) might show up in the archaeological record (HBCA B.224/d/3).

Those debt lists represent a material culture record, profitable for investigation by those interested in material culture – i.e., archaeologists (Beaudry 1988). By the latter half of the 1980s, Beaudry argued that the study of material culture, regardless of where it occurred, either in the documents, paintings, or lying on the surface of the ground, was also the domain of archaeological inquiry, which, by its very definition, interpreted history and cultures through material remains. This tendency toward a more all-inclusive study of material culture by archaeologists, using various sources, grew over the years (as it was already present in a few studies in the 1960s), and was in strong contrast to the more traditional ways of doing fur

trade archaeology – namely focusing just on things coming out of the ground. Also, traditionally archaeologists, “...set out to discover whether archaeological evidence properly reflects the pendants, chopped out of larger pieces of trade silver, or copper tinkling cones, rolled from scraps of old metal pots – items repurposed from other articles used in the trade.

Secondly, the debt lists do not always reveal how people used certain objects, once they bought them at the Company store. Metal thimbles appear in the 1826 Fort Vermilion I inventories (HBCA B.224/d/3:41-49). Curiously though, those found in the archaeological record at Fort Vermilion I, and at other fur trade posts, have holes at the ends (Figure 6). At first, when we found them at Fort George, I thought that they were just worn out through use and then discarded. Then, one day while working in the storage area at the Royal Alberta Museum, one of the



Figure 6. Metal thimbles, Fort Vermilion, with holes at their working ends.

curators brought out a netted shawl which was decorated with thimbles attached on strings, and the lights came on regarding why so many thimbles in the archaeological record had holes in them (see Pyszczyk 2015:239-43). They were being used as jewelry instead of just thimbles. Only an archaeological record would reveal that early practice. It had started in the late 18th century, long before anyone made the pieces in the museum ethnology collections.

From Quantitative Methods to a Culture History of Materialism in Fur Trade Archaeology

Over the years I have examined fur trade assemblages, including the Fort Vermilion I assemblages, in terms of their suitability to provide meaning about cultural continuity or change (Pyszczyk 1987, 1988, 2015). Sometimes I used quantitative techniques and wide-ranging social or economic theories to examine entire assemblages or specific objects. I reasoned that if the fur trade was

primarily an economic enterprise, then it was realistic to ask whether it conformed to economic laws operating in other 18th and 19th century societies. Or, if some forms of material culture acted as a source of information and communication (e.g., status, gender, etc.), then did it too have a unique quantitative signature like language (Pyszczyk 1987)? However, by the 1980s some archaeologists (see Adams in Klimko 1994) wondered if we had missed a step by not thoroughly describing these objects first in their cultural historic context, and thereby had fallen short in properly understanding these objects, "...within the context of the fur trade." (from Klimko 1994:165). Stone tobacco pipes are a good example of our tendency to overlook description in favour of a search for larger patterning in fur trade archaeology. We found a stone pipe in 2000 at Fort Vermilion I (Figure 7), originally of Iroquoian origins. It was not until a few years ago, while researching artifacts for our new museum galleries, that I began to understand its complex history. The markings on the pipe were very unusual, consisting of perfectly round circles with a dot in the middle. I remembered finding a piece of bone with those same markings at Fort George (located on the North Saskatchewan River about 800 miles away) many years ago. As I looked through the collections in the Royal Alberta Museum, there were more objects (e.g., fleshers, bone quill smoothers, pieces of bone, etc.) with the circle and dot motif on them, all coming from central and northern Alberta. At the time, I knew virtually nothing about this motif.



Figure 7: Stone platform tobacco pipe with the circle-and-dot motif incised on it, Fort Vermilion.



Figure 8: Circle-and-dot motif, quill smoother, Rocky Mountain House, Alberta.

Research indicated that the circle and dot motif has ancient Athapaskan origins (Figure 8), and traditional stories are associated with it. Its presence on objects at northern fur trade posts, then is not surprising, since Athapaskan speakers traded and even lived at these forts. What was surprising, was the presence of this motif on stone pipes of eastern Canadian origins and ethnic affiliation. This motif was found at forts which were just south or on the edge of Athapaskan territory. The presence of this symbolism on these objects was possibly a means of expressing an Athapaskan identity on new forms of material culture that the people obtained through the fur trade. We had not ever seen this before.

It has taken me nearly 40 years, since I first saw a stone platform tobacco pipe at Fort George, to unravel the pipe's possible origins. The scant documentary evidence suggests that French Canadian habitants borrowed this pipe style from the Iroquois along the St. Lawrence River (Daviau 2008). Since both French Canadians and Iroquois worked in the fur trade at the western forts (NWC in

particular) it is not unreasonable to think they brought this form of tobacco pipe with them. Despite the long distances from home, they held onto some of their cultural traditions by continuing to use these pipes. And the story keeps getting wilder. In 2016, we found a platform tobacco pipe base made from lead (Figure 9). Its owner probably lived a short life after inhaling the lead fumes given off while smoking it!



Figure 9: Lead platform tobacco pipe base recovered from Fort Vermilion, 2016.

CONCLUSIONS

As fur trade archaeologists, whatever we achieved in the past, what we have become, or will be in the future, we continue to combine the documentary and archaeological records in ways unique to the study of culture history. As Rostovtzeff points out, occasionally, even when a documentary record exists, the archaeological remains of a people are a better testament of how they lived and operated in their world. Fur trade documents were

written by an elite few, and records were more about economic matters than how people actually lived or thought about themselves or others. Yet many of the locally made objects we find at these posts are still very poorly understood, as is what they can tell about the history of the period.

A few years ago, I had to find fur trade artifacts, including objects from my own work, and develop them into displays for the new fur trade gallery for the new Royal Alberta Museum. That exercise impressed upon me that there were still large knowledge gaps in these collections, even after 50 years of work. While the discipline may have undergone a few methodological shifts over the years, basic issues such as inadequate collections persist – a situation made worse with an ever-dwindling number of people working in the field.

When I had to develop stories for these fur trade objects I realized that this part of our research was very underdeveloped. We had not investigated the history of many fur trade objects thoroughly enough to properly understand them in their historic or cultural setting. Why, for example, had it taken me 40 years to figure out the history of the markings on stone tobacco pipe in a fur trade context when we had already found them in the late 1960s – early 1970s? It was never easy to convince the academic community to encourage their M.A. students to do their theses on a particular artifact category, instead of field-oriented research. More could have been understood if this had transpired. Perhaps the best work I have ever read on fur trade mate-

rial culture, and how it fit into a peoples' culture and history – in this case the Métis — was by Sherry Farell Racette (2005), entitled “Sewing Ourselves Together: Clothing, Decorative Arts and the Expression of Metis and Half Breed Identity.” As archaeologists, we could all take a lesson from her work to re-examine and research some of the many interesting fur trade artifacts in order to derive deeper understanding of the roles of those items in culture. Such an exercise would benefit both academic and public-oriented archaeology.

REFERENCES CITED

- Adams, G., K. Lunn, M. A. Tisdale, & Peter Priess
1990 Archaeological Investigations at the Forks National Historic Site, Winnipeg: Mitigation of the North Point Development. *Parks Canada Research Bulletin No. 283*, Ottawa.
- Beaudry, Mary C. (editor)
1988 *Documentary Archaeology in the New World*. Cambridge University Press.
- Daviau, Marie-Helene
2008 *La Pipe de Pierre dans la Societe Canadienne des XVII, XVII et XIX Series*. Centre Interuniversitaire d'études sur les Letters, les Arts et les Traditions (CELAT), Quebec.
- Farell-Racette, Sherry
2005 *Sewing Ourselves Together:*

- Clothing, Decorative Arts and the Expression of Metis and Half Breed Identity*. Ph.D. Dissertation, (Department of History), University of Manitoba, Winnipeg.
- HBCA
1825-26 B.224/d/3. Fort Vermilion Account Book.
- 1826-27 B.224/a/2. Fort Vermilion Post Journal.
- 1827-28 B.224/a/3. Fort Vermilion Post Journal.
- Klimko Olga
1994 *The Archaeology of Land Based Fur Trade Posts in Western Canada: A History and Critical Analysis*. Ph.D. Dissertation, (Department of Archaeology), Simon Fraser University, Burnaby, B.C.
- Noble, William C.
1973 *The Excavation and Historical Identification of Rocky Mountain House*. Occasional Papers in Archaeology and History No. 6. Canadian Historic Sites. Department of Indian Affairs and Northern Development, Ottawa.
- PAC (Public Archives of Canada)
1813 H1/701/1813-14. David Thompson's map of western Canada.
- Prager, Gabriella
1980 *Behavioral Implications of Cultural Formation Processes: An Example from Fur Trade Archaeology*. Master's thesis, (Department of Archaeology), Simon Fraser University, Burnaby, B.C.
- Pyszczyk, Heinz W.
1977 Appendix IX: Wood and Charcoal. In *Archaeological Investigations: Fort Victoria, 1975*. Timothy C. Losey, Occasional Paper No. 3. Alberta Culture, Historical Resources, Edmonton, Alberta.
- 1984 Site Occupation Length as a Factor in Artifact Assemblage Variability and Frequency. In *Archaeology in Alberta, 1983*, edited by D. Burley, pp. 60-76. Occasional Paper No. 23, Archaeological Survey of Alberta, Edmonton, Alberta.
- 1987 *Economic and Social Factors in the Consumption of Material Goods in the Fur Trade of Western Canada*. Ph.D. Dissertation (Department of Archaeology), Simon Fraser University, Burnaby, B.C.
- 1988 Consumption and Ethnicity: An Canada. *Journal of Anthropological Archaeology* 8:213-49.
- 2015 *The Last Fort Standing: Fort Vermilion and the Peace River Fur Trade, 1798-1830*. Occasional Papers of the

Archaeological Society of Alberta, No. 14.

2016 *Archaeological Investigations at Fort Vermilion: Inside, Outside, and Further Afield*. Archaeological Survey of Alberta Occasional Paper No. 36:46-66. Edmonton, Alberta.

Rostovtzeff, Michael

1927 *A History of the Ancient World: Volume II Rome*. Oxford University Press, USA.

Schiffer, Michael

1972 Archaeological Context and Systemic Context. *American Antiquity* 37 (2):156-165.



PART II

FROM THE ROCKIES TO PANAMA: CHACMOOL IN CENTRAL AMERICA

IMAGING AND IMAGINING ANCIENT MAYA CAUSEWAYS: WHEN SACBES TURN

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The spatial structure of Prehispanic Maya urban phenomena has long been the subject of academic scrutiny (e.g., Hutson 2016). Causeways (*sacbes* in Yukatek Maya) have been an important element of these discussions given the great effort that the ancient Maya of some regions put into materially connecting architectural groups within and between sites (Shaw 2008). In this paper, we discuss new lidar data on causeways spanning central Yucatán to northern Quintana Roo that inform us of several urban phenomena spanning the Late Preclassic to the Terminal Classic. We will focus on the Yaxuná-Cobá *sacbé* and discuss the history of the mapping and imaging of this causeway while revealing our lidar data imagery and what it can tell us about the settlement patterns and spatial organization of these important urban centers as well as the construction of the causeway itself. Our

research indicates that Yaxuná-Cobá *sacbé* was not as straight as previously thought and that the zone of urban settlement around Cobá extends along the causeway for some distance.

Previous Research

Stories of the grand white causeways of the ancient Maya stretch back to at least the Spanish conquest, with Diego de Landa (1966 [1566]:109) noting signs of a “*muy hermosa calzada*” (very beautiful causeway) that once connected Izamal and T’Hó, and ran through Aké. Many of these stories survive today and mix with tales and legends of improbably long causeways that connect distant cities, sometimes running underground and hidden to modern knowledge. Perhaps other great roads will be discovered like those linking Calakmul with

El Mirador and on to El Tintal. To date, however, the longest ancient causeway in the Maya region is the *sacbé* connecting Yaxuná and Cobá in the Northern Yucatán, known as Sacbé 1 from the reckoning of investigations at both sites (Benavides Castillo 1981). Just how long that *sacbé* runs is now actually less clear than formerly assumed. The distance is traditionally recorded as 100 km, but our lidar data reveals numerous turns and bends that likely result in an overall length greater than 100 km; since pieces of the causeway are missing in our data field we cannot yet calculate the complete distance. We will delve further into those discrepancies and the path of the *sacbé* as imaged in the lidar data after a quick review of the history of the rediscovery and mapping of Sacbé 1.

John Lloyd Stephens provides a vague mention of the *sacbé* in the 1840s but was not able to mount an expedition to verify the rumors. Teobert Maler in 1891 (though published in 1932) recorded some dimensions of the road, and in 1926 Thomas Gann noted *chultuns* (excavated deposits in the landscape used as cisterns) and *sartenejas* (natural cavities in the karst landscape) alongside the *sacbé*, though he may have mistakenly interpreted as *chultuns* quarried cavities known as *sascaberas*, carved out along the *sacbé* to gather the *sascab* (a calcite sand found in pockets under the limestone cap) with which it was paved. Shortly thereafter J. Eric Thompson and colleagues (1932) mapped several of the Cobá *sacbes* and described their construction. Although

they did not map the full length of Sacbé 1, they did suggest that it likely connected Cobá with Yaxuná, rather than with Chichén Itzá as others had previously assumed. They also roughly dated these roads by their association with stelae at Cobá, which record Long Count dates from the middle of baktun 9, or the seventh century AD.

It was Alfonso Villa Rojas, however, who launched an expedition to walk and map the entire length of the *sacbé* in 1933 with a crew of twelve men plus himself, who were likely the first to fully do so in several centuries. They started in Yaxuná, at Structure 6E-13, which connects with the *sacbé* via a ramp that composes the western terminus of Sacbé 1. Despite using a compass on a tripod and marking stake, Villa Rojas records the angle of the *sacbé* proceeding from this start point as 84°30', although clearly from his own map and all others since, the *sacbé* runs slightly south of due east as it departs Yaxuná (Figure 1). Of further interest, Villa Rojas (1934:199) does not record any turn nor change of course in the road until Ekal, 35 km east of Yaxuná. As we shall see, lidar data reveal numerous turns and bends along the causeway prior to reaching Ekal (as well as past it). Yet the idea of Sacbé 1 being a relatively straight road crossing the northern plains of Yucatan has remained an essential quality of this causeway in the imagination of researchers ever since, replicated in numerous images over the course of the last century.

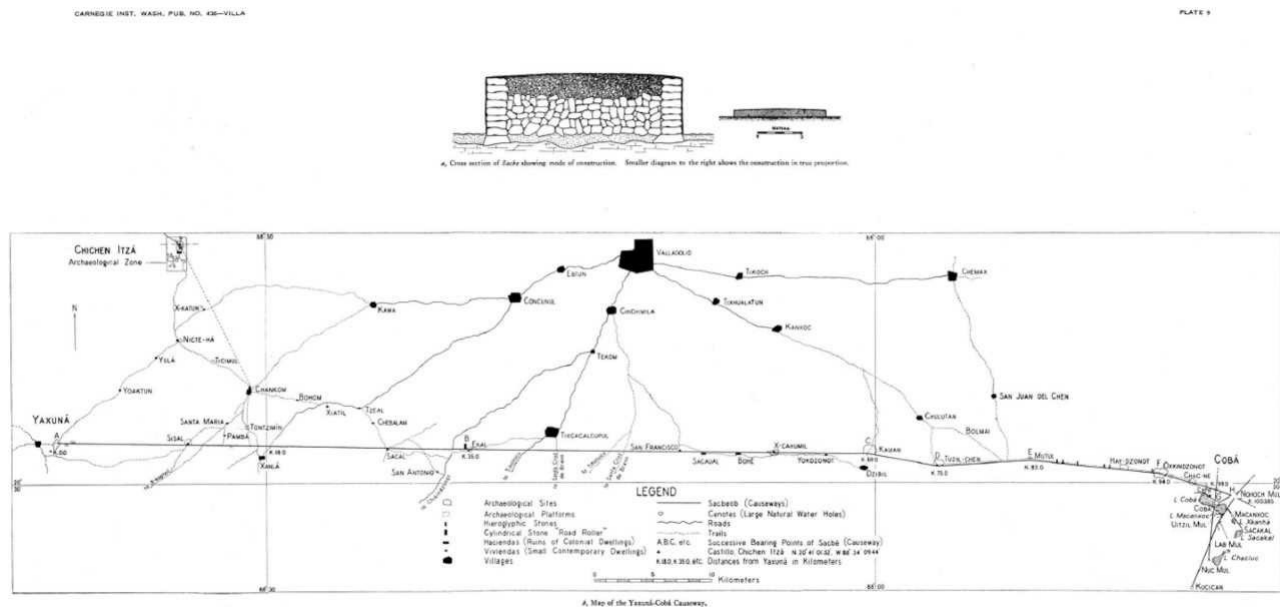


Figure 1: Map of ScSacbé 1 (from Villa Rojas 1934).

Mapping efforts that included the extensive causeway system at Cobá were undertaken during 1970s, specifically by Antonio Benavides (1976, 1981) and Folan and his colleagues (Folan 1977; Folan and Stuart 1974, 1977; Folan et al. 1983, 2009; see also Gallareta Negrón 1981, 1984; Garduño Argueta 1979). The maps generated from these efforts helped to create a sense of the spatial patterns of causeways and monumental architecture, as well as domestic settlement in the areas of some of the causeways. The extent of research associated with Sacbé 1, however, was limited to only a portion of the urban zone of Cobá.

In more recent decades, the common use of Google Earth has given rise to amateur archaeologists contributing to research from their personal computers. Posted on webpages and online forums (e.g., Megalithic Portal 2008), one can find maps resulting

from attempts to plot Sacbé 1 in patches of clearings where it is visible in the satellite imagery. Interestingly, these amateur attempts already began to show nearly a decade ago how the causeway may not make such a straight or simple path as drawn by Villa Rojas.

Publicly available satellite imagery was not just being used by amateur researchers during this time, however. Walter Witschey and Clifford Brown, archaeologists who have created and maintained *The Electronic Atlas of Ancient Maya Sites*, also used Google Earth to plot points of the *sacbé*, combining their points with the Villa Rojas' map to create a shapefile of the causeway that could be used in ArcGIS, Google Earth, and other programs. In doing so, they found a large enough discrepancy in the eastern half to necessitate the plotting of two alternate

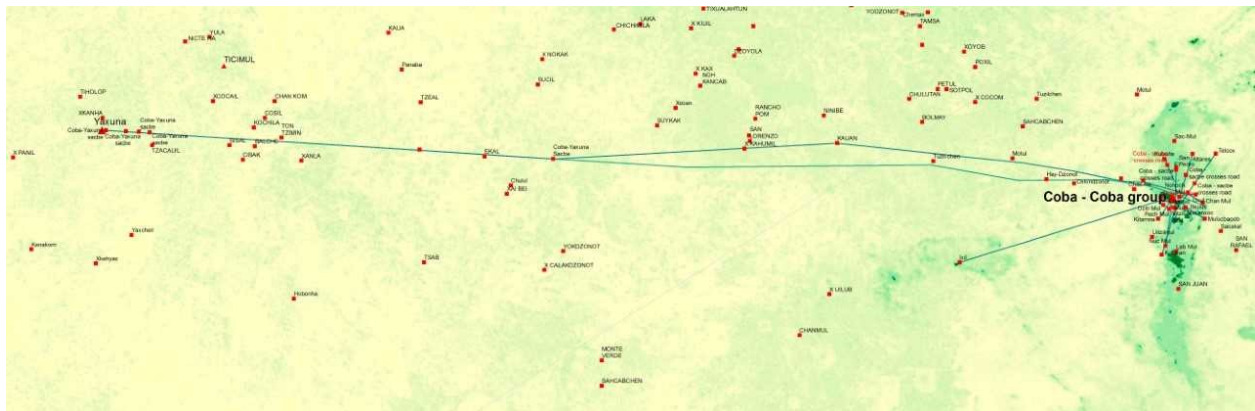


Figure 2: Map of the causeway system emanating out of Cobá showing the potential northern and southern paths on the eastern side of Sacbé 1 (copyright 2010 Walter R. T. Witschey and Clifford T. Brown, *The Electronic Atlas of Ancient Maya Sites*, used with permission).

lines (Figure 2); this discrepancy again demonstrates the growing evidence against the model of a relatively straight road.

Lidar Mapping of Sacbé 1

In 2017 we extended lidar coverage in several areas, including a one-kilometer wide

transect along the most likely path of Sacbé 1 as well as an approximately 100 km² area around Cobá (Figure 3). Yaxuná had been mapped with lidar as part of your 2014 mapping efforts (Magnoni et al. 2014). The lidar was flown during both seasons by NCALM. In terms of planning the flightpath for Sacbé 1

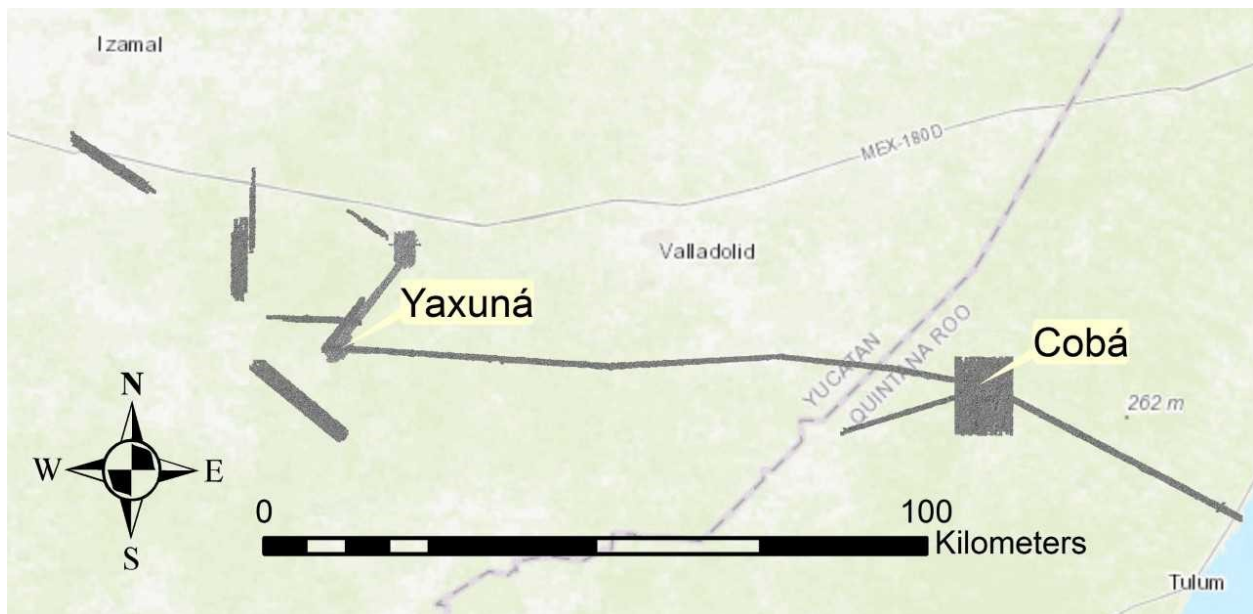


Figure 3: Areas of lidar mapping by the PIPCY project conducted between Yaxuná and Cobá during the 2014 and 2017 field seasons.

1, we utilized the shapefile from Witschey and Brown choosing the northernmost eastern path to guide the flight. We supplemented their data by using a GPS point collected where the causeway crossed a modern road south of Valladolid during the 2016 field season.

As indicated by the white line following the actual path of the *sacbé* (Figure 4), the flightpath missed the path of the *sacbé* in several large areas. Although we had assumed that there would be more variations in the direction of the causeway than indicated in Villa Rojas' map, we expected that those variations would be within the kilometer width of the mapping transect. We were surprised that this was not the case and that the *sacbé* varied significantly. As can be appreciated in Figure 4, the path of the *sacbé* treks south beyond the bounds of our lidar data

from about Kilometer 7 to Kilometer 16.5 (east from Yaxuná), then trails northward off the grid from around Kilometer 21 until 28, and then is lost to the south once more near Kilometer 42 and returns to the fold fully near Kilometer 54, although there is a half-kilometer stretch in this last gap where it is briefly visible along the southern edge of the data. All told, around 28 km of the *sacbé* are beyond the limits of our lidar. We suspect that these deviations that are off of the lidar lead to archaeological sites and that the causeway was directed to incorporate various existing communities between Cobá and Yaxuná when it was built in the seventh century AD; for instance, there is a site named Sisal noted by Villa Rojas in association with Sacbé 1 in the first gap in the lidar data leaving Yaxuná. We plan to test this hypothesis by surveying these areas in the near future.



Figure 4: Lidar image of the survey area showing the known path of Sacbé 1 gleaned from the data.

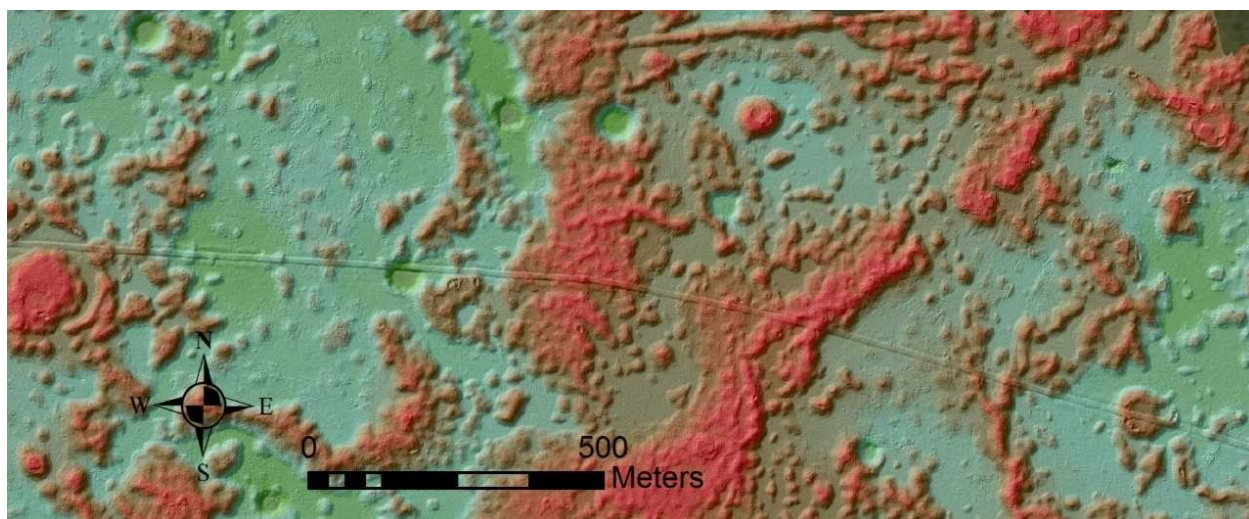


Figure 5: Lidar image of Sacbé 1 about 5km east of Yaxuná.

A significant turn of around 11° to the south at approximately 4.9 km leads to the first gap (no settlement is visible in the lidar data in this area), but a closer scale reveals that this turn is actually a series of slight turns in succession and that there are also a number of slight turns in many areas that appear at a distance to run straight (Figure 5). The practice of tracing out the *sacbé* as it appears on the lidar in ArcGIS actually helps to reveal these turns. Often when plotting out what appears to be a straight line we were forced to track back and create additional vertices that expected to keep the line on course. Quickly we noticed that these vertices almost always fall on small rises in elevation. Near Yaxuná and Cobá, and occasionally at smaller settlements, these rises are often built structures such as ramps or platforms like the “toll booths” proposed by Folan and colleagues (1983:155). The majority of the rises, however, appear to be natural hummocks of the sort that are densely distributed in and around Yaxuná and appear to

continue to Ekal and beyond. These hummocks often make it difficult for us to identify built structures in the lidar data, as they often resemble them and were often built upon with relatively little modification compared to other built structures (see Magnoni et al. 2016).

We hypothesize that the correlation between hummocks and vertices rests in the method of engineering and construction of the *sacbé*. As a segment was plotted, it might have been easier to use a rise in the landscape to maintain a straight segment. Today, local Yukatek Maya use poles and shouts to create a straight line between two people through the relatively dense forest. Placing one person on a rise would both increase visibility as well as serve to aid auditory communication. The segments between hummocks tend to be straight, indicating that straightness was an important quality for the causeway and on the ground most of the changes in direction would not be noticeable; this may account for why Villa Rojas did not realize the causeway

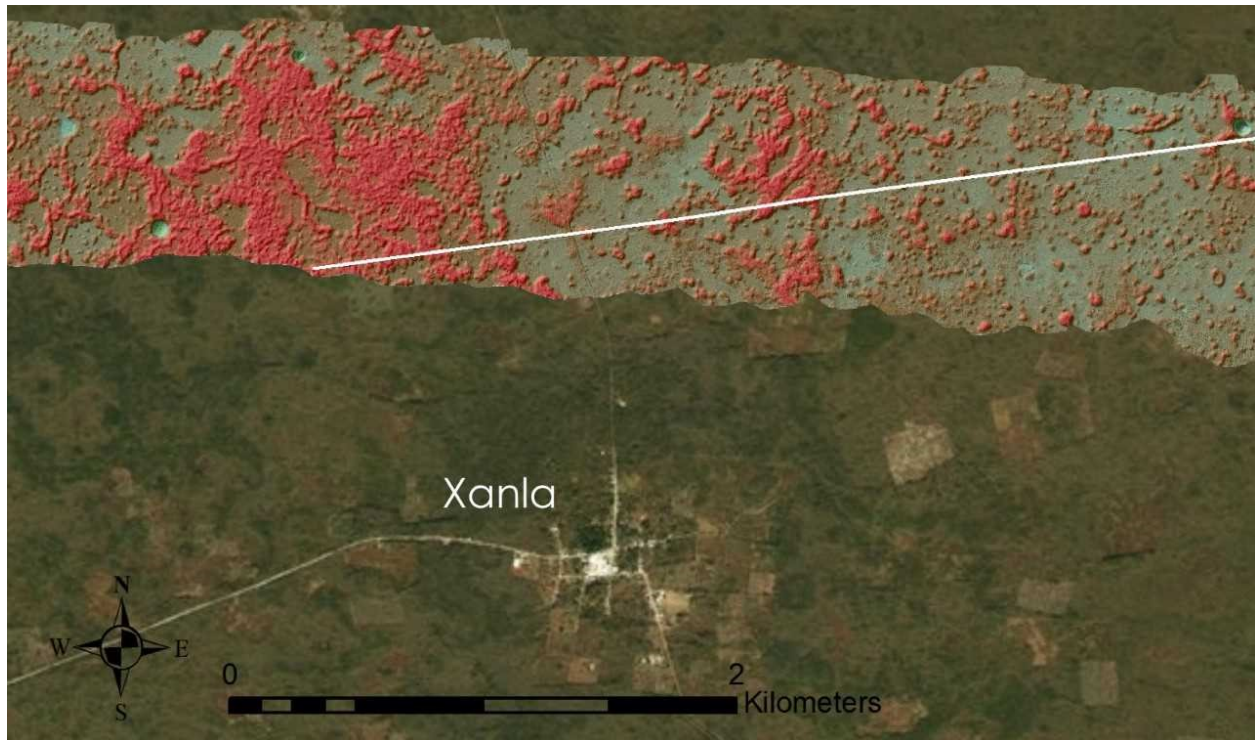


Figure 6: Lidar image of Sacbé 1 north of Xanlá.

was changing direction as he traversed it. Yet the accumulation of these changes in direction gives the appearance of a rather erratic line from a large-scale ‘birds-eye’ perspective. Additionally, *sachbes* are built to be raised from the surrounding landscape, so the hummocks themselves would naturally facilitate this attribute while saving on construction material and labor time (Figure 6).

Continuing down the causeway, Sacbé 1 reappears in the lidar data for a relatively brief stretch at Kilometer 18, where Villa Rojas (1934:198) mentions crossing a path which connects contemporary villages of Cuncunul and Xanlá, the latter of which is found a kilometer south of the *sacbé* and was built partially with robbed stones from a prehispanic settlement. A further 10 km down

the causeway we catch the site of Sacal at the end of the second gap. We have just enough imagery to suggest that Villa Rojas may have missed a few small structures here.

At Kilometer 35 we follow Villa Rojas to Ekal, an important site for its relative distance, placement near a large *cenote* and *rejollada*, and monumental architecture (Figure 7). As can be appreciated in Figure 7, Sacbé 1 is nearly invisible as it passes through the site, which is not the case for other sites along the causeways visible in the lidar data. This lack of evidence for the causeway indicates to us that Sacbé 1 was robbed for stones for later construction at the site. In fact, ground survey at Ekal in 2017 indicates a substantial Terminal Classic occupation of the site postdating the Late Classic

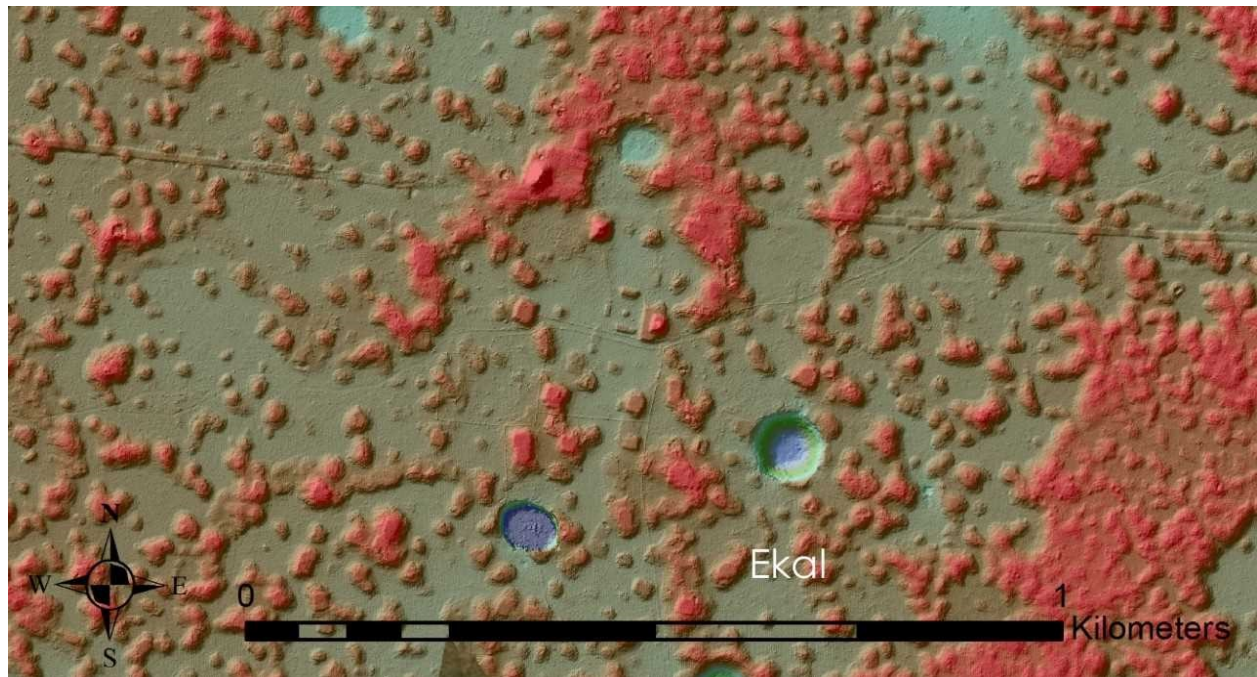


Figure 7: Lidar image of the site of Ekal.

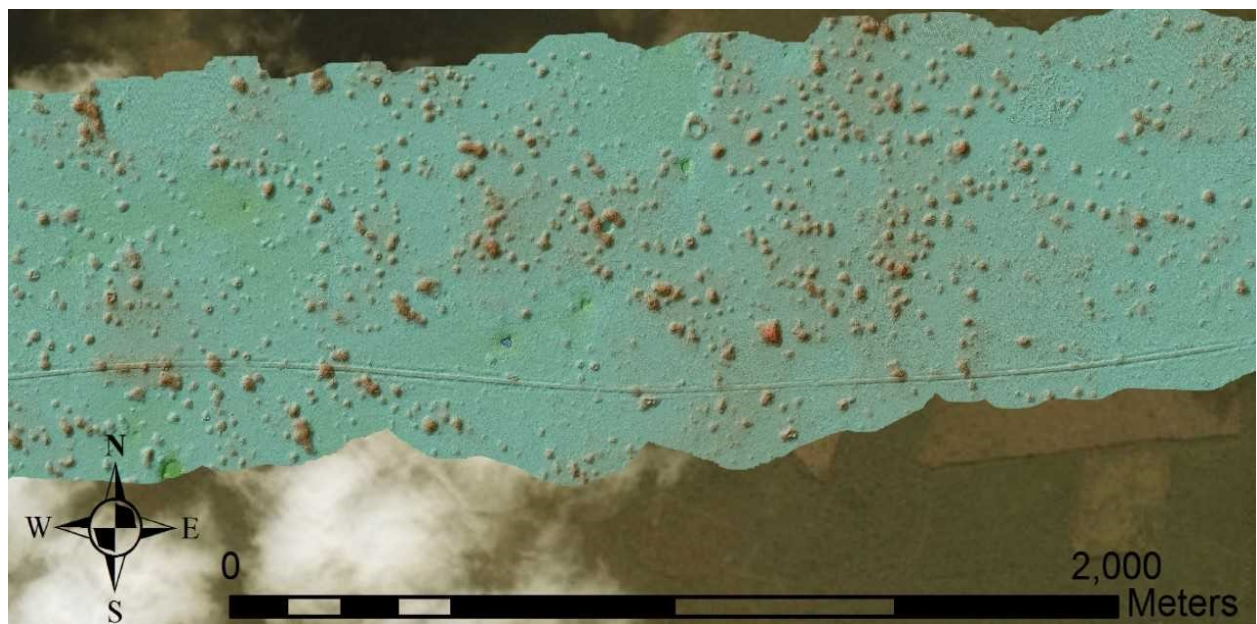


Figure 8: Lidar image of Sacbé 1 about midway between Yaxuná and Cobá.

construction of Sacbé 1 (Figure 8).

Passing Ekal and the smaller sites of Sacauil and Bohé, towards the central portion of Sacbé 1, the vertices increase in frequency, and even at a relatively close scale the frequency in turns resembles long winding turns rather than discernable angles after long straight stretches, resulting instead in the appearance of a curving and snaking *sacbé*. The next major site is Kauan at Kilometer 69, where Villa Rojas noted another major turn in the causeway. It is from this point on that he records a series of frequent turns leading toward Cobá. Mutul is another small site with a big cenote and a noted turn at Kilome-

ter 83. Nearing Cobá at Kilometer 91, the site of Hay-Dzonot sports structures aligned to the *sacbé* and surrounding a cenote. Beyond this point (eastward toward Cobá), the *sacbé* shakes off its snake-like quality and becomes much straighter for much longer stretches, requiring far fewer vertices to plot as it approaches Cobá for this last 10 km stretch. A further 3 kilometers leads us to Oxkindzonot, a site with a sprawling plaza and interesting architecture (Figure 9).

Along with a straighter and more formal course, Sacbé 1 appears to have more architecture alongside and aligned with the road as it approaches and enters Cobá, much



Figure 9: Lidar image of the site of Oxkindzonot.

much more so than the urban zone of Yaxuná. Sacbé 1 also intersects with intrasite causeways of Cobá, where all are connected via ramps to raised structures at the points of intersection. The higher density of settlement along the *sacbé* near Cobá indicates that this road facilitated the expansion of the already sprawling city of Cobá; urban settlement seemingly ‘pulled’ out along the causeway. Finally, Sacbé 1 terminates at (or originates/emerges from) Nohoch-Mul in central Cobá.

Final Comments

Sacbé 1 was a massive undertaking of engineering and construction in terms of time, resources, and labor power. Moreover, its construction and use heavily influenced settlement strategies, especially near Cobá. Our preliminary analysis of the lidar data appears to support the hypothesis that Sacbé 1 was used by the lords of Cobá to assert and maintain (for a time) political dominance over the region and connect with the waning (though likely still-important economic center) power of Yaxuná. In contrast to Cobá, the relative lack of dense settlement along the causeway as it cuts toward Yaxuná as well as the reduced tendency of architecture at Yaxuná to align with the *sacbé* suggest that Yaxuná was a diminished population center during the Late Classic. We again stress, however, that this is a preliminary analysis of new lidar data, and much more work still needs to be conducted in term of quantifying features through digitization of architectural features, ground-truthing ambiguous structures, and collecting chronological data. For example, while we have demonstrated that Sacbé 1 is far from straight, we need to test

questions such as whether the frequency and severity of turns may simply be due to the influence of the natural topography and the desire to pass nearby natural features like cenotes, or if these spatial patterns indicate differing strategies in construction practices, perhaps with larger labor crews and more formal engineering near the urban center of Cobá. It is our hope and expectation that further investigations guided by this lidar data will help to elucidate and describe the relationship and attitude of ancient Maya of different regions, social classes, and time periods toward these grand white roads.

ACKNOWLEDGEMENTS

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REFERENCES CITED

Benavides Castillo, Antonio

1976 El sistema prehispánico de comunicaciones terrestres en la región de Cobá, Quintana Roo, y sus implicaciones sociales. Unpublished MA thesis, Maestro en Ciencias Antropológicas en la Especialidad de Arqueología, Universidad Nacional Autónoma de México, D.F.

1981 *Los caminos de Cobá y sus implicaciones sociales (Proyecto Cobá)*. Instituto Nacional de Antropología e Historia, México, D.F.

Folan, William J.

1977 El sabe Coba-Ixil: un camino Maya del pasado. *Nueva Antropología* 6:31-42.

Folan, William J., Ellen R. Kintz, and Laraine A. Fletcher (editors)

1983 *Coba: A Classic Maya Metropolis*. Academic Press, New York.

Folan, William J., Armando Anaya Hernández, Ellen R. Kintz, Laraine A. Fletcher, Raymundo González Heredia, Jacinto May Hau, and Nicolas Caamal Canché

2009 Coba, Quintana Roo, Mexico: A Recent Analysis of the Social, Economic and Political Organization of a Major Maya Urban Center. *Ancient Mesoamerica* 20(1):59-70.

Folan, William J., and George E. Stuart

1974 Coba Archaeological Mapping Project, Quintana Roo, Mexico. *Boletín de la Escuela de Ciencias Antropológicas de la Univesidad de Yucatan* 22-23:20-29.

1977 El Proyecto Cartográfico Arqueológico Cobá, Q. Roo: informes interinos números 1, 2, y 3. *Boletín de la Escuela de Ciencias Antropológicas de la Universidad de Yucatán* 22:14-81.

Gallareta Negrón, Tomás

1981 Proyecto Cobá: extensión y análisis preliminar de asentamiento prehispánico. *Boletín de la Escuela de Ciencias Antropológicas de la Universidad de Yucatán* 50-51:60-76.

1984 Cobá: forma y función de una comunidad maya prehispanica. Unpublished Licenciatura thesis, Facultad de Ciencias Antropológicas, Universidad Autónoma de Yucatán, Mérida.

Gann, Thomas W. F.

1926 *Ancient Cities and Modern Tribes*. Duckworth, London.

Garduño Argueta, Jaime

1979 Introducción al patrón de asentamiento del sitio de Cobá, Quintana Roo. Unpublished Professional Thesis, Licenciado en Ciencias Antropológicas en la Especialidad de Arqueología, Escuela Nacional de Antropología e Historia, México, D.F.

- Hutson, Scott R.
2016 *The Ancient Urban Maya: Neighborhoods, Inequality and Built Form*. University Press of Florida, Gainesville.
- Landa, Fray Diego de
1966 [1566] *Relación de las cosas de Yucatán*. 9th ed. Editorial Porrúa, México, D.F.
- Megalithic Portal
2008 General Forum: Yaxuna to Cobasabe. Electronic document, <http://www.megalithic.co.uk/modules.php?&=2>, accessed October 13, 2017.
- Magnoni, Aline, Travis W. Stanton, Nicolas Barth, Juan Carlos Fernandez Diaz, José Francisco Osorio León, Francisco Pérez Ruíz, and Jessica A. Wheeler
2016 Assessing Detection Thresholds of Archaeological Features in Airborne Lidar Data from Central Yucatán. *Advances in Archaeological Practice* 4 (3):232-248.
- Maler, Teobert
1932 *Impresiones de viaje a las ruinas de Cobá y Chichén Itzá*. J.E. Rosado E., Mérida, Yucatán.
- Shaw, Justine M.
2008 *White Roads of the Yucatán: Changing Social Landscapes of the Yucateca Maya*. University of Arizona Press, Tucson.
- Stephens, John Lloyd
1843 *Incidents of Travel in Yucatan*. 2 vols. Harper & Brothers, New York.
- Stuart, David
2006 The Inscribed Markers of the Cobas Yaxuna Causeway and the Glyph for Sakbih. *Mesoweb*, electronic document www.mesoweb.com/stuart/notes/sacbe.pdf.
- Thompson, J. Eric S., H. E. D. Pollock, and Jean Charlot
1932 *A Preliminary Study of the Ruins of Cobá, Quintana Roo, Mexico*. Carnegie Institution of Washington, Pub. 424. Carnegie Institution of Washington, Washington, D.C. Villa Rojas, Alfonso
- 1934 *The Yaxuna-Coba Causeway*. Contributions to American Archaeology No. 9, Carnegie Institution of Washington, Pub. 436. Carnegie Institution of Washington, Washington, D.C.
- Witschey, Walter R. T. and Clifford T. Brown
2010 The Electronic Atlas of Ancient Maya Sites. Mayagis.smv.org

Chac-Who? The Origin of the Chacmool

By: Geoffrey McCafferty



The student archaeology club at the University of Calgary is called Chacmool, but why? Who was Chacmool? The name derives from a mythical prince of the ancient Maya of Chichen Itza, at least according to late 19th century explorer Augustus Le Plongeon. Le Plongeon had the romantic notion that Chichen Itza was inhabited by refugees from the lost continent of Mu. Prince Chacmool was the son of Queen Mu. He was commemorated in a series of large stone sculptures of a reclining figure with knees bent and a bowl resting on his stomach. Many scholars have attempted interpretations of these enigmatic statues that have been found at sites across Mesoamerica and as far south as Costa Rica, but no consensus exists.

Why the U of Calgary's archaeology club adopted the name Chacmool is also lost in the mists of time. According to Emeritus Professor Dr. Jane Kelley, who was long the keeper of the sacred history of the Chacmool conference, it likely originated with the department's co-founder, Dr. Richard (Scotty) MacNeish, who was an eminent Mesoamerican archaeologist best known for his investigation of the domestication of corn.

There is nothing inherently Chacmoolish about the archaeology club, though Chacmooligans have historically created caricatures of the icon wearing sombreros and holding drinks; one myth is that the bowl on the statue's belly may have held guacamole dip – residue analysis has yet to confirm this possibility.

Each November the Chacmool organization hosts its annual conference to explore new dimensions of archaeological method and theory. This year we celebrate Chacmool's 50th anniversary, and with it another chapter in the history of the Chacmool will be created.



PUT ON YOUR WAR PAINT: HOW TEOTIHUACAN USED ART AS A WEAPON OF WAR IN MESOAMERICA

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ABSTRACT

Warfare was ubiquitous in Mesoamerica as states vied for power and control across the landscape. The archaeology has been primarily concerned with the identification of the casualties of battle and the ensuing sacrifices, or with the coverage of the campaigns in public monuments as an after fact. However, this article examines art as a tool of warfare in ancient Latin America, specifically focusing on how Classic Period Teotihuacan utilized art as a means of engaging combatively with other sites. I have found three aspects (the abstraction of form, the erasure of individuality, and the inclusion of the feathered serpent) were the most effective expressions of this intent. The results suggest that there is more to learn from the examination of art in the Mesoamerican world, especially concerning polity and identity within major centers.

Classic Period Mesoamerica was fraught with conflict over territorial boundaries and control over resources. The increase in interregional trade was the perfect catalyst for the dynamic network of belief and authority. Combat was an inevitable ubiquity. Warfare in Latin American antiquity has been well studied in terms of weaponry and casualties, as well as with representations of warfare documenting the results of the battle. Bonampak, Cacaxtla, Chichen Itza, and several other centers

decorated their walls with tumultuous battles in splendid blues and ferrous reds. But there are many ways to wage war, including through the use of art. This article will examine the manner in which the brush was much more effective than the spear in the case of Teotihuacan.

The murals found at the site are so radically different from the established canon that to attribute the discrepancy as a simple matter of local style would be a mistake. As I have argued previously, art is not a passive

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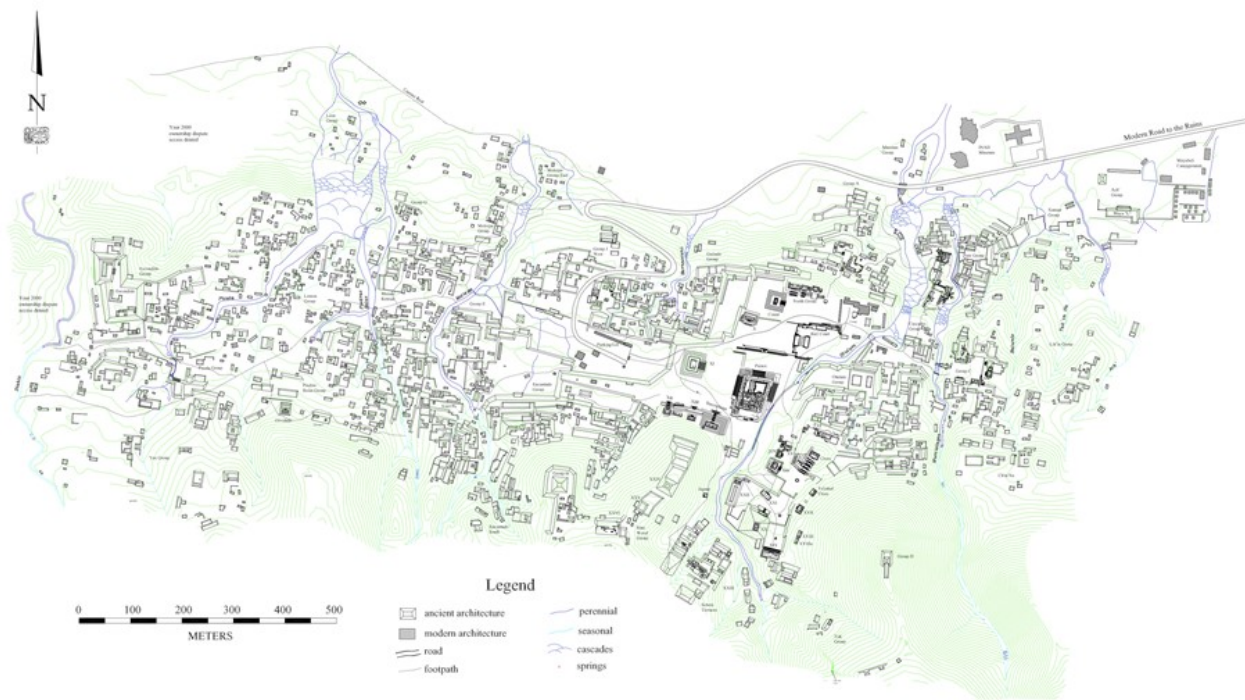


Figure 1. Map of Palenque by Edwin Barnhart, from the Palenque Mapping Project, 2001. Reproduced from <http://www.mesoweb.com/palenque/resources/maps/media/map1.pdf>.

medium of cultural production, as is so frequently assumed in archaeological and art historical analyses. It was much more than a decorative feature. It was how the various institutions of culture were managed, contested, and refined. Under this paradigm, I argue that Teotihuacan used art as a means to declare its direct challenge to the social structure of contemporary polities. Teotihuacan made such a deliberate break with Maya style and iconography that it is possible to interpret these choices as visual assaults on the Maya society, even if they were not entirely visible to the public. The results suggest that there is more to learn from the examination of art in the Mesoamerican world, especially concerning polity and identity within major centers.

CONTRASTING SITES

First, it is necessary to prime the discussion with the context of the two societies under consideration.

Maya

There are too many monographs on the Maya to even try listing here. That itself is enough indication that the culture is well documented elsewhere for those who are curious. Nonetheless, I will provide a brief outline of the typical features of a Maya center to allow for comparison with Teotihuacan throughout the rest of this chapter. Maya polities hosted massive capitals in the central highlands and Yucatan lowlands that boasted densely populated

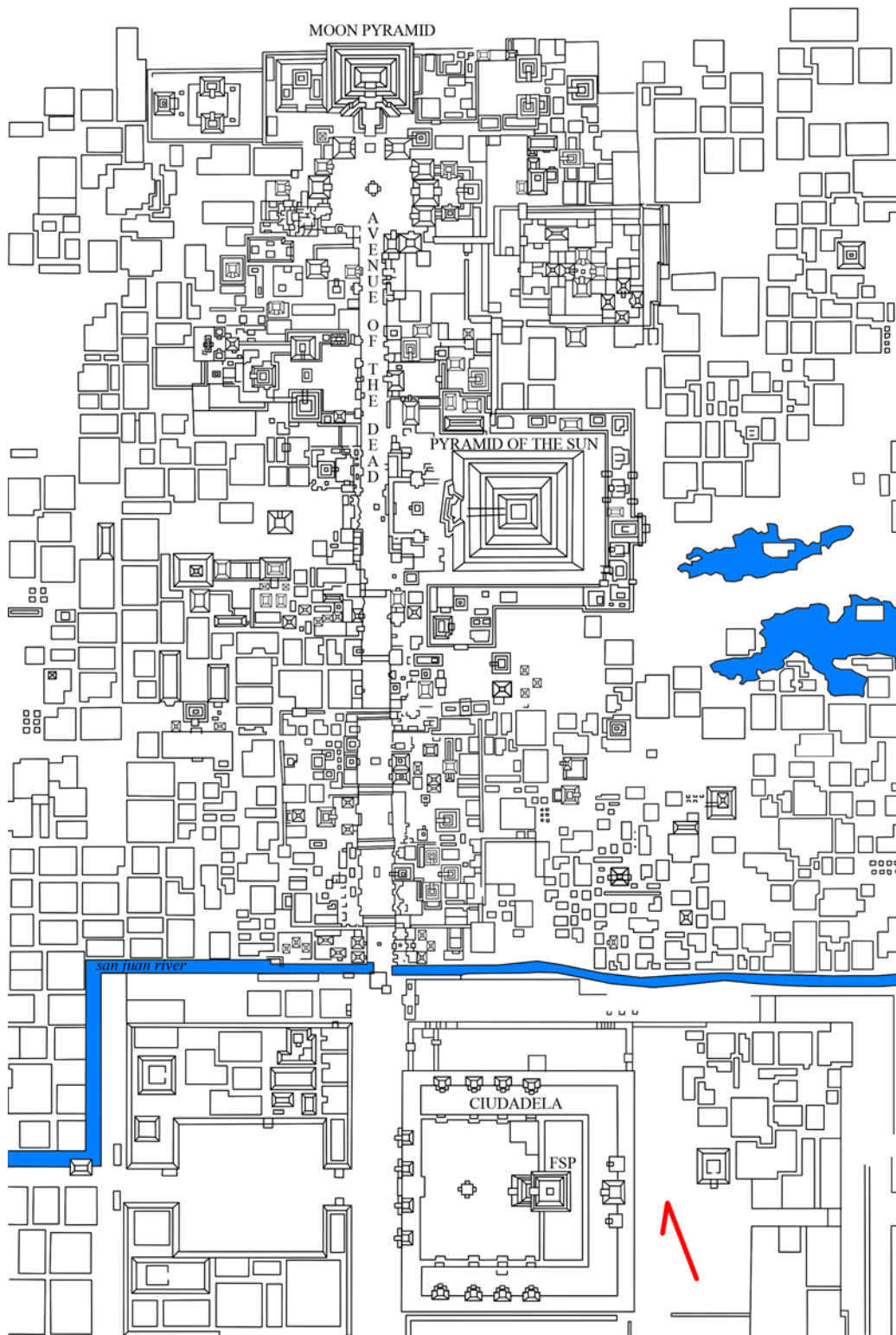


Figure 2. Map of Teotihuacan by Kathryn Florence, after Millon 1973. Reproduced courtesy of the author.

multi-ethnic communities and occupied hinterlands (Manzanilla 1997). A site grew in the same sense that a plant does, starting from the point where the seed is planted—the ceremonial center—and spreading its creeping vines outwards into the surrounding soil—the residential features (Figure 1). The governing authority did not plan where residences were to be built, thus they took root wherever they wanted to. Housing was an indicator of social status with the more elite living within more elaborate and permanent residences closer to the core while commoners erected simpler huts on the outskirts of the center. Ruling over all of this was an *ajaw*, a lord typically of great wealth and/or military status. Monuments to the ruling powers are a staple of declaring authority and act as markers within the archaeological record for modern researchers. Nonetheless, these capitals typically developed over centuries, waxing and waning depending on the dynasty, and results in a mishmash of styles across buildings in close proximity. It was essentially much like the feudal kingdoms of Europe some five centuries later.

Teotihuacan

By comparison, Teotihuacan is located near Lake Texcoco in the Central basin of Mexico, no more than a few hours' drive away from the modern capital. At its climax, Teotihuacan covered 20 km²; the eight km² that now make up the archaeological site only represent the civic ceremonial core (Newell 2009). At first glance, this settlement would appear to be like any other in the Maya territory. But if you take a step back, let's say a

few hundred feet up, you begin to see that other sites cannot compare (Figure 2). Teotihuacan presented a civic plan that was radically different, choosing to forgo tradition in favor of innovation (Smith 2017). Two massive roads dissect the site, the major orthogonal being the North-South Avenue of the Dead. Nearly all of the buildings are oriented 15° 17' off true north following this avenue. On top of that feat, the people redirected the San Jose River to flow through their city, dividing the plan into a quad partite design. A Cartesian grid. But what sets Teotihuacan apart from other civic-ceremonial centers is that the citizens selectively demolished established housings and then built residential districts. Because all of this happened within about two centuries, there is a consistent architectural style throughout the site. When you get millions of people together like Teotihuacan did, you must have some kind of governance. And here's where things really get revolutionary. Teotihuacan does not seem to have had an *ajaw* tradition, or if there were once lords, their presence was erased during the revitalization of the Tlamimilolpa phase. I agree with Blanton and Fargher's (2008) theory that a system of collective action and public goods could have been in place at Teotihuacan. It is statistically possible, that the center operated under collective government (Froese et al. 2014). Among the most incredible upheavals was the art.

A NEW TRADITION

Teotihuacan's art was a key tool in creating these revolutionary paradigms. The proceeding section will illustrate how each



Figure 3. View into one of the temples with murals in Atetelco, one of the many housing complexes near Teotihuacan. Reproduced from <https://www.uweduerr.com/teotihuacan/>.

stroke was an act of war. Esther Pasztory (1992) was the first to propose that Teotihuacan art was a rejection of established Mesoamerican artistic cannon rather than merely regional style. This section will analyze the three visual features of the Teotihuacan canon as they were used to strike against Maya ideology. These motifs were drawn from older traditions but reinvented into something entirely new, and thereby made all the more effective as weapons of war.

New style: Abstract style to be egalitarian

Teotihuacan art is abstract. Patterns are repeated across walls in dizzying designs

of lines and symbols (Figure 3). Animals are rendered using sinuous curves. They strike poses that could never be witnessed in nature. Human figures, when depicted, are stiff and blocky. They seem more like schematics of a person than actual portraits. There is no ground line. No perceptual depth. Figures dance through voids of color. The result of the simplification is a style that is “is ornamental and symbolic and in which the aim of the artist is not to recreate a perceptual equivalent of the natural world” (Pasztory 1992). In essence, the art was not trying to create a simulacrum of a real event or place as was standard with Maya form. They presented a flat space of ideals. This art is not about telling a narrative. It is about the grander ideas that belie the symbols on that two-dimensional stage.

Symbolically, abstract art is about dissociating. It strips back anything that is not essential to the vision. In a city such as Teotihuacan, which is made up of immigrants, refugees, and locals, it makes sense. Associating the site with an outsider style might incidentally alienate some groups. This would cause unrest in such a claustrophobic setting. Therefore, they wiped away all traces of affiliation. The abstraction of forms erases regional cues that migrants to the city would have brought with them. In this way, Teotihuacan stressed their collective identity as a polity in order to forge cohesion amid groups living within its limits.

Taking a step back physically, the implementation of the abstract mural is also worth discussing. The images are easily copied. The art in the temple was the same found

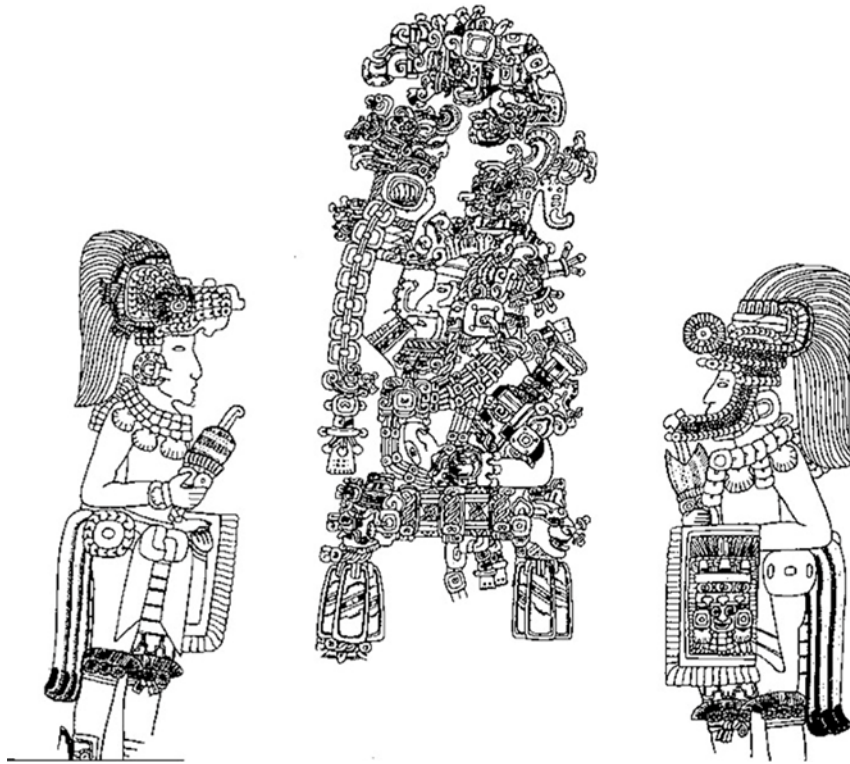


Figure 4. Stela 31, Tikal. Reproduced from <http://www.latinamericanstudies.org/tikal-stela-31.htm>.

in the barrio. This was not the case in Maya polities where painted works and murals were restricted to the most elite households. Therefore, abstraction was used to convey a sense of equality, of uniformity. It was a proclamation that the city of Teotihuacan was flourishing financially because even the commoners could afford vibrant pigments and artisans. It was a small gesture towards the blurring of class lines that were strictly enforced outside of Teotihuacan.

New focus: Class over the individual

This section will return to the human figures that parade along the walls of compounds and public facades. A high percent-

age of Maya art is dedicated to depicting the ruler or other elites, such as Stela 31 from Tikal (Figure 4). The monument shows a meeting between two Teotihuacano warriors and the *ajaw* of Tikal, Sian Kan K'awil (Stormy Sky). We know this information because it is recorded in glyphs on the stela itself. Iconographically, Mayan ajaws are easily identified by the royal regalia they wear (Ouellette 2008). There were strict laws in Maya society on who could wear such garments. Needless to say, the elite were more generously and elaborately dressed. Yet, while the figures are just as covered by trinkets and symbols, one can still perceive the human beneath. The face is framed by the headdress in a way that draws attention to it,



Figure 5. *Tepantitla Priest mural, Teotihuacan. Reproduced from <https://www.uweduerr.com/teotihuacan/>.*

instead of obscuring it. By contrast, the visiting warriors appear almost naked in comparison. Browder's (1991) study of elite costume found that subordinate persons wear simpler headdresses than that worn by the higher ranked figure. Such is the case in this stela. Moreover, while Sian Kan K'awil and the warriors are within human proportions, the *ajaw* is still towering over the visiting militants by virtue of his placement within the visual space. The message is clear: this is the man in charge of this center.

But Teotihuacan produces no equivalent monuments. As just established, Teotihuacano art is abstract, so how did they handle the depictions of individuals? The short answer is that they did not. Figure 5 is typically how humans are presented: stoic, rigid, and repetitious. Each feature is given as much

attention as the next. The figures are identical, suggesting an equality of importance in the scene. The figure is covered in symbols and trappings. You can barely see their faces through the regalia. In fact, you can barely tell that it is a human in the first place. Most of the costumes relate to the priestly syndicate or military orders. Elites are nowhere to be seen. This omission was not by chance.

At the heart of this tactic is the prioritizing of the collective class over the individual identity. Instead of glorifying the individual, the class was emphasized. It did not matter who was in the office, simply that it existed. After all, the individual did not make this unique polity. It was the people. Thus, it was the anonymous masses of people that it idolized in paint.

New god: Jaguar vs. feathered serpent

Finally, the subjects being depicted offer an insight into the message being conveyed through art. Animals are presented as anthropomorphized representations of grander affiliations, especially concerning power and privilege. Maya *ajaws* were symbolically tied to jaguars, as the beasts were the apex predator of the jungles. Even in the arid mountains of Oaxaca, jaguars were the icons of rulership. Thus, for this one city to completely reject standard jaguar iconography—to place the animal as subservient to the Feathered Serpent—is a clear message (Math 2017a). We'll play your game, but we'll do it by our rules.

In Mesoamerica, social, political, and supernatural power was foregrounded in a distinct pantheon of gods. There are too many to list, but the one you need to keep in mind is the Jaguar. From the first indications of collective identity, the jaguar was the iconographic 'king' of the Mesoamerican world. Its pelts were the symbol of rulership, draped over the shoulders and hips of the urban center lords. The Olmec claimed descentance from supernatural jaguars and based their claim to rulership on these lineages. There was nothing more noble, fierce, or powerful than the feline predator. Teotihuacan not only rewrote civic planning and government; what was going to stop them from reinventing the very cosmology that such power would be based upon? This is where the Feathered Serpent comes into the picture. My previous research has shown that Teotihuacan curated the image of the Feathered Serpent as an iconographical oppo-

sition to the Jaguar of the Maya *ajaws* and previous cosmology (Math 2017b).

For reference, before 100 BC, avian-serpents held little to no status within pan-Mesoamerican religion. These are two formative period examples from the Guerrero region in the western territory of Mexico, not exactly contemporary with Olmec, but close. The Guerrero serpents were understood to be somewhat associated with clouds and caves, but these connections are far from certain. They had some role as a messenger between the upper, middle, and underworlds. But in general, their appearances are few and far between.

To compare them with the Teotihuacano Feathered serpent, it becomes evident that these are quite different creatures. The feathered serpent held multiple roles within Teotihuacan. It was the master of time itself as a snake sheds its skin to become young again and along with it, the year. It soared through the sky, bringing the rain to the parched land. Its feathers were the most vibrant green and its teeth were sharper than obsidian, both of which sustained the center's trade networks; like the warriors that protected the population, it was precious and lethal all at once. This figure meant something to the people living here. It was the brand of Teotihuacan. Just look at the site. Its face is literally everywhere.

ART OF WAR

Art allowed for a more nuanced mingling of ideas, notions that cannot be conveyed by screaming bloody murder across the battlefield. Sometimes, foreign symbols

appeared to have esoteric knowledge and power, which would have been very attractive to those looking to demonstrate these qualities. Borowicz (2002) suggests that periphery states would take on the iconography associated with power in the Core state to show their alignment. Artistic eclecticism was, therefore, an encouraged pastime for elites to “bolster their local status” (Cheetham 1998). In other cases, the inclusion of foreign symbols was in a position of subjugation. The murals at Bonampak are the most famous example. Here jaguar pelt-clad warriors don’t just defeat feathered combatants, they outright obliterate them.

Public monuments were a great deal more efficient in terms of effort too. Constant warfare was not an ideal situation for any lord, especially when your enemy was an equally vicious army. In terms of manpower needed, the mural was the better option. Art had a greater impact over the decades. It lasts longer than campaigns. The image is more easily seen than the actual rituals of human sacrifice they depict. In nearly every facet, art production was more efficient than outright battle.

CONCLUSION

All of this came about from just looking at murals and stelae, from seeing how these symbols interact over time and space. Because contact never flows in only one direction. The interaction between the polities meant that there was an exchange of ideas and images. Local monuments drew on foreign styles, mixing them with native cannons, and creating something new. Thus, it can be

concluded that style is no more a passive reflection than art is, but both are created through series of deliberate choices. Such changes do reflect changes in thought and culture, but they are also propagators of that change. Thus, when a radical change does occur, it is fundamental to ask why it happened and what the artists wanted it to do. In this case, it signaled a change in ideology.

Teotihuacan made a visceral decision when it created this canon of art. One role of symbolic expression is to define the community in relation to other communities—past or present. This game of identity is played through tactics of opposition and assimilation. Therefore, the choices of what is opposed and what has assimilated offer insight into the construction and preservation of group identity. Teotihuacan was the place of the Feathered Serpent and they made sure the rest of Mesoamerica knew that through public monuments decreeing their opposition to the jaguar. When Teotihuacan created their art, they did so with a specific purpose in mind, to be different from Maya iconography. To say, “We’re not like you. We’re not ruled by lords. We’re a united whole and we aren’t afraid to bite.”

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REFERENCES CITED

- Blanton, Richard and Lane Fargher
2008 *Collective Action in the Formation of Pre-Modern States*. Springer Science & Business Media, New York.
- Borowicz, James
2002 Images of Power and the Power of Images: Iconography of Stelae as an Indicator of Socio-Political Events in the Early Classic Maya Lowlands. Ph.D. dissertation. University of New York, Buffalo.
- Browder, Erin Cathleen
1991 A Study of Elite Costume and Emblem in Classic Maya Art. Ph.D. dissertation. University of California, Berkeley.
- Cheetham, David
1998 Interregional Interaction, Symbol Emulation, and the Emergence of Socio-Political Inequality in the Central Maya Lowlands. M.A. thesis. University of British Columbia, Vancouver.
- Froese, Tom, Carlos Gershenson, and Linda R. Manzanilla
2014 Can Government be Self-Organized? A Mathematical Model of the Collective Social Organization of Ancient Teotihuacan, Central Mexico. In *PLOS One* 10:1-14.
- Manzanilla, Linda R.
1997 Early Urban Societies: Challenges and Perspectives. In *Emergence and Change in Early Urban Societies*, edited by Linda R. Manzanilla, pp. 3-42. Plenum Press, New York.
- Math, Kathryn
2017a Fang and Feather: The Origin of Avian-Serpent Imagery at Teotihuacan and Symbolic Interaction with Jaguar Iconography in Mesoamerica. Unpublished B.A. thesis. Purdue University, West Lafayette.
- Math, Kathryn
2017b Fang and Feather: The Origin of Avian-Serpent Imagery at Teotihuacan and Symbolic Interaction with Jaguar Iconography in Mesoamerica. In *The Journal of Purdue Undergraduate Research* (7)1:18-26.
- Newell, Gillian Elisabeth
2009 A Total Site of Hegemony: Monumental Materiality at Teotihuacan, Mexico. Ph.D. dissertation. The University of Arizona, Tucson.
- Ouellette, David A.
2008 Sacred Spaces, Myth, Ritual, and the Material Ideology of Kingship in the Preclassic Maya Lowlands. M.A. Thesis. Northern Illinois University, Dekalb.
- Pasztor, Esther
1992 Abstraction and the Rise of a Utopian State at Teotihuacan. In *Art, Ideology, and the City of Teotihuacan: a Symposium at Dumbarton Oaks, 8th, and 9th October 1988*, edited by Janet Catherine Berlo, pp. 281-320. Dumbarton Oaks Research Library and Collection, Washington, D.C.
- Smith, Michael E.
2017 "The Teotihuacan Anomaly: The Historical Trajectory of Urban Design in Ancient Central Mexico. In *Open Archaeology* (3)1:175-193.

“LESSER NICOYA?”: ADDRESSING NICARAGUA’S MARGINAL PLACE IN CENTRAL AMERICAN ARCHAEOLOGY

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ABSTRACT

Although Nicaragua’s archaeological potential has been recognized by scholars since at least the middle of the 19th century, the archaeological record of the largest country in Central America remains the least explored and most ignored. As a consequence, Nicaragua’s prehistory has never been properly contextualized. For various reasons, and partially because scant attention has been paid to archaeological evidence for interregional interaction (both within and beyond Nicaragua’s modern borders), archaeological research in Nicaragua has had little impact on the interpretation of prehistory in surrounding countries, and vice-versa. This paper offers some thoughts on how future Nicaraguan archaeology might benefit from an increased focus on connections with neighbouring territories suggested by archaeological evidence (as opposed to the more familiar yet vague connections suggested by ethnohistoric sources) as well as other lines of evidence that have been often neglected in previous research.

Although Nicaragua is the largest country in Central America, its archaeological record remains the least explored and most ignored. Statements to this effect have become such a common introductory refrain in research discussing the archaeology of Nicaragua that they have begun to seem almost ritualistic, a sort of invocation that researchers make to the spirit of Central American archaeology to ensure success before we offer up our own latest

insights and interpretations on the various temporary altars to prehistory—de facto “chacmools”, as it was. Yet it would be a mistake to treat the self-evident fact that Nicaragua’s archaeological record remains poorly understood (even in the 21st century) as a cliché or truism since this would imply that this is *not* worth mentioning, when the truth is otherwise. We need to remind ourselves, constantly, that we still have a long way to go before we can claim to have

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made much significant progress in reconstructing the prehistory of Nicaragua and how this prehistory articulated with that of Nicaragua's neighbours. In this paper, I will first review—in very broad strokes—the history of archaeological research in Nicaragua and discuss some of the factors that have contributed to the marginalization of this work. I will then conclude by outlining some new directions that might be pursued in future research—particularly in Pacific Nicaragua, the northern half of the archaeological subregion of Greater Nicoya that represents my own specific area of expertise—that could help to move Nicaragua away from its present marginal position in the archaeology of Central America.

A BRIEF HISTORY OF NICARAGUAN ARCHAEOLOGY

The father of Nicaraguan archaeology was Ephraim George Squier, an American who first visited Nicaragua in 1849 as a diplomat (Seitz 1911:13-14). His popular accounts of his visit (1852/1860; 1853) spurred an interest in Nicaraguan archaeology not unlike the interest in Maya archaeology generated by John Lloyd Stephens's travelogues (1841, 1843), which Squier's books resemble in many respects. Squier's work provided useful ethnographic information: the first accounts of the stone monuments of Zapatera and other islands in Lake Nicaragua, and descriptions of other archaeological remains that have now vanished. Squier was followed by several

other researchers in the late 19th century, none of whom were professional archaeologists and most of whom were motivated by an almost competitive desire to collect antiquities (especially statues) for museums in the United States and Europe (Whisnant 1995). The earliest of these visitors in the 1860s and 70s included Frederick Boyle (1868), who visited eastern Nicaragua for the British Museum, the linguist Carl Berendt (1868), and Thomas Belt (1874), a naturalist who visited the central highlands. Later visitors included John Bransford (1881, 1884), Earl Flint (1882, 1884), Charles Nutting (1885), Carl Bovallius (1886, 1887), and J. Crawford (1890, 1892, 1895). The archaeological work of these explorers was typically descriptive and often highly speculative.

Bransford, Flint, and Bovallius were the most influential of the late 19th century visitors. Bransford, an American navy doctor, excavated on Ometepe Island, in the Rivas-Santa Isabel area, and on the Nicoya Peninsula, and was responsible for naming Luna and Palmar Wares, ceramic classifications that are still used by modern archaeologists. Flint, another medical doctor, collected for both the Smithsonian and the Harvard Peabody Museum (Whisnant 1995:289-294) and is primarily remembered for identifying the pottery type now known as Tola Trichrome (Stone 1984:26) and for his brief report on human footprints found preserved in volcanic tuff in deep stratigraphic deposits at the Acahualinca quarry in Managua (Flint 1884). Unlike Bransford, who published a slim volume on

his research, Flint published almost nothing substantial on his excavations and the material that he collected, and most of the information that we have about his work derives from Peabody accession records and his correspondence with the Peabody and Smithsonian (Whisnant 1995:483ff). Bovallius (1886), a more meticulous Swedish zoologist, revisited sites described by Squier and Bransford and explored Ometepe and Zapatera, collecting and photographing rock art. His small collections were eventually sent to Sweden, where for decades much of the material remained not only uncatalogued but even unpacked (Whisnant 1995:299).

Whether the enthusiastic yet haphazard investigations of the 19th century ultimately did more harm than good to the archaeology of Nicaragua remains an open question. While some of these pioneers attempted to maintain a degree of scientific rigour in their work, others (Flint in particular) were little better than looters themselves. Although their work spurred an interest in Nicaragua's prehistory and perhaps even preserved many artifacts that might otherwise have been lost to posterity, this work also stimulated even more looting and destruction of major archaeological sites (cf. Stone 1984:30; Whisnant 1995:305), and this has necessarily compromised our modern understanding of past lifeways in Greater Nicoya. These researchers, heavily influenced by ethnohistory, also seem to have set the direction of subsequent archaeology in Nicaragua by concentrating on the most "Mexican" groups and by emphasizing migration narratives and the most

Mesoamerican aspects of pre-Colombian lifeways. This practice began with Squier, who focused almost exclusively on Pacific Coast groups with Mexican ancestry and mostly ignored the "rude tribes" of Nicaragua's Caribbean coast (Squier 1853:5). This areal focus on Pacific Nicaragua continues to dominate Nicaraguan archaeology to the present day, and the tendency to treat pre-contact groups like the Chorotega and Nicarao as being "the same" as Mesoamericans elsewhere likewise remains persistent, and has seemingly contributed to a general lack of interest in questions pertaining to either the possible local origins of these groups or the connections between these groups and other groups in the region ... questions that could help Nicaraguan archaeology become more integrated into the archaeology of Central America as a whole.

In the early 20th century, the most significant figure in Greater Nicoya archaeology was the American archaeologist Samuel Lothrop, the preeminent Central Americanist of his day. The cornerstone of Lothrop's reputation was his two-volume *Pottery of Costa Rica and Nicaragua* (1926), an extensively illustrated study of ceramics from Greater Nicoya and Costa Rica's Central Highlands and Diquís Delta regions based primarily on firsthand examination of more than 35,000 complete vessels (Lothrop 1926:xix), mostly from museum and private collections. Lothrop's book, which also included a useful compilation of Conquest-era ethnohistory, raised the bar for Nicaraguan and Costa Rican archaeology by

providing the first detailed descriptions and classifications of an enormous range of pottery types while making limited efforts to link some of these to chronologically diagnostic types elsewhere in Mesoamerica.

Lothrop's enduring influence is difficult to overstate. Variations of many of his original classifications are still used by modern scholars; his typologies remain in common use in rural Nicaraguan museums, and modern artisans producing for the tourist pottery market often copy decorative motifs from Spanish translations of his book. However, a more problematic consequence of this legacy is that Lothrop also helped to ensure that Nicaraguan archaeology would continue to be viewed through a Mesoamerican lens by pointing out numerous detailed (and convincing) similarities between Greater Nicoyan design motifs and Mexican iconography and by identifying—often incorrectly (cf. Steinbrenner 2010)—specific ceramic types as being diagnostic of specific Mesoamerican cultural groups. Lothrop's conclusions, like those reached by his predecessors, generally discouraged subsequent scholars from treating Nicaragua's archaeological record as something that might be best understood within a regional, Central American context.

Post-dating Lothrop, modern scientific archaeology in Nicaragua began in the late 1950s with work by Wolfgang Haberland and Peter Schmidt on Ometepe Island and by Gordon Willey and Albert Norweb between Rivas and Managua. This work, along with roughly contemporaneous projects in Guanacaste by Claude Baudez and

Michael Coe, took a specific interest in establishing regional chronologies using the then-new technique of radiocarbon dating, and represented the first belated applications of the stratigraphic method in Greater Nicoya—decades after stratigraphic excavation had become standard practice in research elsewhere in the Americas (Willey and Sabloff 1993:96ff).

The Costa Rican projects had the most immediate impact even from the Nicaraguan perspective, inasmuch as they produced the first four-period archaeological sequence for Greater Nicoya, based on ¹⁴C dates (including dates from the Nicaraguan projects) as well as ceramic seriations (Snarskis 1981:22). A modified version of this sequence (which was originally inspired by the then-current Maya sequence) remains in use to this day. Baudez's and Coe's work also laid the foundations for considerable additional research in northwestern Costa Rica in the 1970s and 1980s, including Fred Lange's extensive and influential work (beginning with his 1971 dissertation focusing on the Sapoa River Valley; see also Lange 1988, 1992, 1993, 1995, 1996a, 1996b; Lange and Stone 1984; Lange and Norr 1986; Lange et al. 1992); Jeanne Sweeney's (1975) dissertation studying the ceramics of three sites in Guanacaste previously excavated in 1959-60 by Coe (i.e., Chahuite Escondido, Huerta del Aguacate, and Matapolo); and numerous projects focusing on the Gulf of Nicoya (e.g., Creamer 1983, 1986), the Vidor and Nacascolo sites in the Bay of Culebra (e.g., Abel-Vidor 1980; Accola 1978; Accola

and Ryder 1980; Benson 1981; Hardy 1983, 1992; Lange, Ryder, and Accola 1986; Moreau 1983, 1984; Norr 1991; Salgado et al. 1981; Salgado and Calvo 1983), the Tempisque Valley (e.g., Day 1984a, 1984b, 1984c; Guerrero and Blanco 1987), and the Arenal region (Hoopes 1987, 1994a, 1994b) bordering Greater Nicoya. Much of this work (and perhaps especially work by Lange and John Hoopes) contributed towards the development of a new paradigm based more on archaeology (including evidence for subsistence and settlement patterns) than on ethnohistory, in which indigenous development was accorded a more significant role than diffusion and migration from Mesoamerica in explaining Greater Nicoya prehistory, although some scholars working with Costa Rican databases (e.g., Day 1984a, 1984b, 1984c; Graham 1985) continued to emphasize Mesoamerican connections.

In sharp contrast, the Nicaraguan projects led by Haberland and Willey had a far more limited impact on the archaeology of Greater Nicoya as a whole, in part because for many years details of these projects—which as a group tended to focus on individual sites rather than identifying regional settlement patterns—were available only in brief preliminary articles (e.g., Haberland 1963a, 1963b, 1966; Norweb 1961, 1964; Schmidt 1963, 1966). While it was Norweb (1961, 1964) who first defined Greater Nicoya as an archaeological subarea and tentatively identified many modern ceramic types, the material that he and Willey collected from the Rivas area was not adequately reported until it was studied a

decade later by Paul Healy in his dissertation (1974, 1980), while other material collected by this project never received proper study (cf. Niemel et al. 1998:678; Salgado 1996:194). Similarly, the first detailed overview of Haberland and Schmidt's Ometepe work did not appear until the 1980s (Haberland 1986, 1992), more than two decades after the field research was completed. The early Nicaraguan projects were also not followed up by the kind of intensive research in Pacific Nicaragua in the 1970s and 80s that was taking place across the border in Guanacaste. This situation can be linked in part to the crippling effects of the Managua earthquake of 1972 and the subsequent Sandinista revolution that discouraged most American researchers from working in Nicaragua for more than a decade (Hughes 1980:38-39, cited in Lange et al. 1992:26; Plunkett 1999:16-19), although some research (by Americans and others, and not just focusing on the Pacific Coast) did continue on a small scale (e.g., Baker and Smith 1987, 2001; Bruhns 1974; Gruhn 1978; Hughes 1980; Magnus 1974; Page 1978; Wyckoff 1971, 1974, 1976; Wyss 1983; see also Arellano 1993). While Nicaragua's newly-formed and underfunded Department of Archaeology under Cultural Patrimony carried out some rescue projects and cataloguing work (cf. Navarro Genie 1993), archaeological work in Pacific Nicaragua in the 1980s was so limited that an opportunistic surface collection survey of 26 sites by Lange and Payson Sheets in 1983 can be counted as a highlight of this decade (Lange, Sheets, and Martinez 1986; Lange et

al. 1992). The most ambitious research in Nicaragua in the 1980s, dissertation projects initiated by French archaeologists Franck Gorin and Dominique Rigat, working with Cultural Patrimony archaeologists between 1985 and 1987, focused on the previously neglected Chontales highlands rather than Pacific Nicaragua *per se* and was not published until the 1990s (Espinoza Pérez and Rigat 1994; Gorin 1990, 1992; Rigat 1992; Rigat and González Rivas 1996; Rigat and Gorin 1993).

Taken together, this lack of publication and follow-up projects contributed to the ongoing marginalization of Nicaraguan archaeology since it meant that by the end of the first half of the modern period, interpretations of the entire subarea of Greater Nicoya were mostly based on data derived from the southern sector in Guanacaste—a phenomenon that was recognized by contemporary researchers (e.g., Lange 1984). Inasmuch as Nicaraguan-oriented work *did* contribute to the conversation about Greater Nicoya, primarily through the eventual publication of Healy’s dissertation as *Archaeology of the Rivas Region, Nicaragua* (1980) and William Fowler’s (1981, 1989) discussion of the Nicaraos in his study of Nahua-Pipil groups in Lower Central America (a discussion that derived very little from archaeological research in Nicaragua), it generally continued to draw more upon the ethnohistoric tradition rather than new archaeological evidence to argue in favour of Mesoamerican migration and against the emerging paradigm emphasizing indigenous development.

For better or worse, this was the state of archaeology in Pacific Nicaragua at the beginning of the 1990s. For brevity’s sake, this paper will forego providing a detailed summary of the more familiar second half of Nicaraguan archaeology’s modern period, which began in the mid-1990s with Fred Lange’s Managua project (Lange 1995, 1996b) and archaeological surveys of Estelí and Madriz, Granada, Rivas, and Masaya by, respectively, Laraine Fletcher (Fletcher et al. 1993, 1994), Silvia Salgado (1996), Karen Niemel (2003), and Manuel Román-Lacayo (2013), continued in the first decade of the new millennium with University of Calgary projects in Rivas and Granada directed by Geoffrey McCafferty (e.g., Debert 2005; Debert and Sheriff 2007; Dennett 2016; Hoar 2006; Leullier-Snedeker 2013; López-Forment 2007; McCafferty 2008, 2011; McCafferty and Dennett 2013; McCafferty and McCafferty 2008, 2009, 2011; McCafferty et al. 2009, 2013; McCafferty and Steinbrenner 2005a, 2005b; Steinbrenner 2002, 2010; Wilke 2011; Zambrana 2008), and work by Spanish scholars mostly focusing on the Atlantic Coast (e.g., Briz Godino 1999; Gassiot Ballbe et al. 2003a, 2003b; Tous Mata 2002), and now continues with projects in the last decade (largely though not exclusively focused on regions beyond the boundaries of Greater Nicoya) directed by Alex Geurds, Clifford Brown, Suzanne Baker (2010), and faculty at UNAN in Managua, among other scholars. Collectively—and somewhat in spite of the fact that the results of most of the research completed in the 1990s have not been

broadly published—this work has made (or is beginning to make) a significant contribution to our knowledge of Nicaraguan prehistory in general and the prehistory of Greater Nicoya’s northern sector in particular, identifying numerous new archaeological sites, broadening our understanding of settlement patterns and mortuary practices, massively improving our understanding of Pacific Nicaraguan ceramics (especially with respect to their classification, interrelationships, and centres of manufacture), and revising the chronological sequence via a more robust ^{14}C dataset (McCafferty and Steinbrenner 2005; Steinbrenner 2016a; Steinbrenner and McCafferty 2018).

And yet, the unfortunately slow progress that was made in Nicaraguan archaeology between approximately 1960 and the 1990s means that modern archaeology in Nicaragua still seems to be playing catch-up and that we are still asking questions that (one might think) ought to have been answered by now. For example, with respect to Pacific Nicaragua specifically, we still can’t say, with any degree of certainty, whether the various contact-era populations of Greater Nicoya’s northern sector were largely comprised of migrant Mesoamericans, as tradition would have it, or if they alternatively developed autochthonously, as some lines of archaeological evidence appear to indicate, or if these populations were the products of ethnogenesis involving both indigenous and migrant groups. We know hardly anything about how these groups interacted with their

neighbours (local, Chibchan, and Mesoamerican) nor how they might be related to modern Central American indigenous groups. In fact, despite our intense interest in issues of cultural identity, it still remains difficult for us to confidently associate *most* sites in Pacific Nicaragua with specific groups. While I’m “pretty sure” that sites like Santa Isabel and El Rayo were most likely “Chorotega” sites—even if I’m not exactly sure about the origins of that group, and even though I myself previously argued *against* that specific identification (e.g., in Steinbrenner 2010)—what does a Nicaraio or Maribio site *look* like? These are by no means trivial questions, and we are still a long way from being able to answer them. What is to be done?

THE WAY FORWARD

Fortunately, the way forward to being able to tell the “story” of pre-contact Pacific Nicaragua is in fact not that complex, and there are multiple paths for us to explore. (In fact, some of the papers presented in the 2017 Chacmool session for which this paper was originally written are beginning to lead the way.) We might start by doing more comparative work, at both the intra-regional and extra-regional levels. That is to say, not only should we do more comparisons of sites located in different regions of Nicaragua itself (for example, coastal and highland sites), but we should also be doing more comparisons of Nicaragua’s archaeological record with the records of neighbouring countries, like Costa Rica, Honduras, and El

Salvador, as well as the archaeological records of the presumed “source” countries of supposed Mesoamerican migrants, like Chiapas and the Soconusco. While the need for this comparative work might seem self-evident, in truth such work has been lacking—a factor that has likely contributed to the marginalization of Nicaraguan archaeology. Comparative work has been hampered in part by the general paucity of the database: for example, the dearth of research focusing on supposedly Maribios territory in northern Pacific Nicaragua in the area around modern Leon makes it difficult to compare this region with better-known territories on the southern Pacific coast, in Rivas and Granada. However, comparisons have also been impeded by a belief that the archaeology of neighbouring countries with no pervasive ethnohistoric tradition emphasizing Mesoamerican colonization is “irrelevant” to Nicaraguan archaeology as well as a lack of interest in exploring connections that have been often tacitly acknowledged but never really scrutinized, such as the obvious relationships between Nicaraguan-made Nicoya polychromes and locally-produced Las Vegas polychromes. As I have argued elsewhere (e.g., Steinbrenner 2010, 2016b), these relationships are clear markers of interesting and important connections between Nicaragua, El Salvador, and Honduras that demand exploration (constellations of practice, anyone?), and yet for most of the history of Central American archaeology, the presence of Las Vegas polychromes in countries north of Nicaragua has been simply attributed to nebulous

“trade” rather than to the potential presence of affiliated groups in all three countries—a phenomenon that should interest Honduran and Salvadoran archaeologists at *least* as much as it should interest researchers studying Nicaragua.

At the annual meeting of the SAA in Vancouver in 2017, Alex Geurds (2017) called for more work studying settlement patterns in Nicaragua, and I believe that this kind of research will be foundational towards helping us form a better understanding of relationships between diverse regions. However, we also need more studies oriented towards identifying specific connections between disparate regions—for example, studies like Carrie Dennett and Ron Bishop’s ongoing work (e.g., Dennett 2016, 2017) sourcing Nicaraguan ceramics—something also discussed by Paling et al. (2017) in the aforementioned Chacmool session—or attempts to identify trade routes, like Adam Benfer’s (2017) work discussed in the same session. Colonial records tell us of a “Camino Real” connecting Nicaragua and lands to the north that was probably based on pre-contact routes: why have we not mapped this by now?

The strong focus of previous Nicaraguan archaeology on ceramic artifacts and, to a lesser extent, stone statuary, points to another way forward to telling the story of Nicaraguan prehistory: while these are obviously important material culture categories, future work also needs to give greater consideration to other lines of archaeological evidence. While non-ceramic and non-lapidary classes of material culture

have received some attention in previous research, the *definitive* studies of most other Nicaraguan artifact classes (e.g., lithics, botanicals, faunal remains—the list goes on) have yet to be written. In the absence of these studies, what can we really say about foodways, about ritual practice, or about daily life in general? We are only going to be able to tackle these questions with a much more complete archaeological database than we now possess.

Finally, I would like to call attention to at least two “blind spots” that are most likely skewing our view of Nicaragua’s past. Firstly, it is almost comical that interpretations of the prehistory of Nicaragua, one of the most seismically active countries on Earth, pay almost zero attention to the potential impact of geological events on the development of pre-contact cultures. Environmental factors play almost no role at all in most culture histories of Nicaragua, when they almost certainly should be front and centre. What were the effects of known devastating volcanic eruptions, like the Ilopango eruption in El Salvador ca. AD 536 (e.g., Dull et al. 2010) that probably affected the climate of the entire planet, on Bagaces-Period populations in neighbouring Nicaragua? What were the effects of more-localized-yet-still-catastrophic eruptions of the numerous active volcanoes strung along the Pacific Coast? Did these events ever make entire regions uninhabitable, as Ilopango did for most of El Salvador for centuries after its eruption? Did they obliterate critical sites (like Arenera outside Managua, for example) that might have had

the potential to significantly rewrite Nicaraguan prehistory? We cannot afford to ignore such questions going forward.

Neither can we afford to ignore alternative historical accounts of Nicaraguan prehistory, beyond the usual “canon” of ethnohistoric sources usually favoured by archaeologists (especially Oviedo 1851-55, Motolinía 1950, and Torquemada 1969). While I remain convinced that there is still much to be learned from such “traditional sources” and that it would be wrong-headed to dismiss these sources as being entirely unreliable, there are also quite likely numerous colonial histories and oral traditions that remain to be mined for their insights. Examples include the numerous historical resources discussed in Laura Van Broekhoven’s (2002) dissertation focusing on the Central Highlands and Flavio Gamboa’s oral tradition of Mankesa (i.e., Chorotega) history from Masaya published in Les Field’s (1999) ethnography *The Grimace of Macho Raton*. However, archaeologists (especially those who are not themselves Nicaraguan) have been strangely reluctant to seek out and/or give credence to alternative views on the past, particularly oral accounts. What might explain this bias? Perhaps we don’t want to admit that the prospect of working in a country where there are no “true” self-identifying indigenous groups remaining (which is more or less the stance of the Nicaraguan government, at least for the Pacific Coast; cf. Field 1998) can seem very attractive to the archaeologist, since it removes the necessity of consulting with potential stakeholders regarding potential

research projects that often complicates modern fieldwork elsewhere. But of course, oral traditions, in particular, can be very powerful tools for interpreting (or reinterpreting) the past. For example, a recent article in *The Atlantic* (Langlois 2017) discussed how archaeologists in the American Southwest are gaining new insights from Tewa oral traditions that were once dismissed as being incompatible with archaeological evidence, and I think a similar approach combining fieldwork with ethnographic research might prove very fruitful for Nicaraguan archaeology in the future.

To conclude, as I’ve only begun to outline here, there are many ways forward to being able to tell the story of pre-contact Pacific Nicaragua, and doubtlessly the stories of the rest of the country as well. Telling these tales is *critical* if we don’t want Nicaraguan archaeology to continue to be marginalized or ignored outright—if we want the archaeology of Nicaragua to really *matter* to archaeologists working elsewhere in Central America, in Mesoamerica, and beyond. I have no doubt that the stories are there in the archaeological record, waiting to be told: our great challenge for the next half-century will be to find and read them.

REFERENCES CITED

- Abel-Vidor, Suzanne
1980 The Historical Sources for the Greater Nicoya Archaeological Subarea. *Vínculos: Revista de Antropología del Museo Nacional de Costa Rica* 6(1–2):155–176.
- Accola, Richard A.
1978 A Decorative Sequence of Prehistoric Ceramics from the Vidor Site, Guanacaste, Costa Rica. M. A. thesis, University of Texas-Austin, Austin, TX.
- Accola, Richard A., and Peter R. Ryder
1980 Excavaciones en el sitio Monte del Barco, Bahía Culebra. *Vínculos: Revista de Antropología del Museo Nacional de Costa Rica* 6(1-2):67-79.
- Arellano, Jorge Eduardo (editor)
1993 *30 Años de Arqueología en Nicaragua*. Museo Nacional de Nicaragua. Instituto Nicaragüense de Cultura, Managua, Nicaragua.
- Baker, Suzanne M.
2010 *The Rock Art of Ometepe Island, Nicaragua: Motif Classification, Quantification, and Regional Comparisons*. BAR International Series 2084.
- Baker, Suzanne, and Michael Smith
1987 *Archaeological Reconnaissance on Isla Zapatera, 1986 Field Season*. Report submitted to Ministerio de Cultura, Managua. Banco de América, Managua, Nicaragua.
- 2001 Prospección arqueológica en la Isla Zapatera, investigación de campo de 1986. *Huellas: Revista de Antropología e Historia* 2:21-59.
- Belt, Thomas
1874 *The Naturalist in Nicaragua*. John Murray, London
- Benfer, Adam
2017 *Simulated Travel Routes for Late Pre-Hispanic Nicaragua*. Paper presented at the 50th Annual Chacmool Conference, November 8-12, University of Calgary, Calgary, AB.

- Benson, Elizabeth P. (editor)
1981 *Between Continents/Between Seas: Precolumbian Art of Costa Rica*. Harry N. Abrams, Inc. Publishers, New York, NY.
- Berendt, Carl Hermann
1868 Report of Explorations in Central America. In *Annual Report of the Board of Regents of the Smithsonian Institution Showing the Operations, Expenditures, and Condition of the Institution for the year 1867*. Smithsonian Institution, Washington, D.C.
- Bovallius, Carl
1886 *Nicaraguan Antiquities*. Swedish Society of Anthropology and Geography, Stockholm.
- 1887 *Resa i Central-Amerika 1881-1883*, 1:227-75. Almquist & Wiksell's boktryckeri, Uppsala.
- Boyle, Frederick
1868 *A Ride across a Continent: A Personal Narrative of Wanderings through Nicaragua and Costa Rica*. 2 vols. R. Bentley, London.
- Bransford, John Francis
1881 *Archaeological Researches in Nicaragua*. Smithsonian Contributions to Knowledge, no. 25. Smithsonian Institution, Washington, D.C.
- 1884 Report on Explorations in Central America in 1881. In *Annual Report of the Board of Regents of the Smithsonian Institution: 1882*, pp. 803-825. Government Printing Office, Washington, D.C.
- Briz Godino, Ivan, Albert Florés Gómez, Ermengol Gassiot Ballbe, and Beatriz Palomar Puebla
1999 Excavación de un montículo precolombino en el Pacífico de Nicaragua: Sitio El Apante, León (N-LE-19). *Vínculos: Revista de Antropología del Museo Nacional de Costa Rica* 24(1-2):95-119.
- Bruhns, Karen
1974 *Punta Zapote and Punta de las Figuras, Zapatera Island, Nicaragua*. Unpublished manuscript cited in Lange, Sheets, Martinez and Abel-Vidor 1992.
- Cornavaca, Deborah Ellen Erdman
2003 *Leon Viejo, Nicaragua: A Community of Contact*. Ph.D. dissertation. University of California, Los Angeles, CA.
- Crawford, J.
1890 Finds in Nicaragua. *American Antiquarian and Oriental Journal* 12:108-12.
- 1892 Notes on Central-American Archaeology and Ethnology. *Proceedings of the Boston Society of Natural History* 25: 247-253.
- 1895 The Story of the Amerrique Indians of Nicaragua. *American Antiquarian and Oriental Journal* 17:269-73.
- Creamer, Winifred
1983 *Production and Exchange on Two Islands in the Gulf of Nicoya, Costa Rica, A.D. 1200-1550*. Ph.D. dissertation, Department of Anthropology, Tulane University.
- 1986 Archaeological Reconnaissance in the Gulf of Nicoya. *Prehistoric Settlement Patterns in Costa Rica*, edited by Frederick W. Lange and Lynette Norr. *Journal of the Steward Anthropological Society* 14(1982-83):171-188. Urbana, IL.
- Day, Jane Stevenson
1984a *New Approaches in Stylistic Analysis: The Late Polychrome Period Ceramics*

- from *Hacienda Tempisque*. Ph.D. dissertation. University of Colorado at Boulder, Boulder, CO.
- 1984b New Approaches in Stylistic Analysis: The Late Polychrome Ceramics at Hacienda Tempisque. In *Recent Developments in Isthmian Archaeology: Advances in the Prehistory of Lower Central America*, edited by Frederick W. Lange, pp. 214-21. Proceedings, 44th International Congress of Americanists, 1982, Manchester. Bar International Series Vol. 212. Oxford.
- 1984c Greater Nicoya Polychrome Ceramics: Regional and Inter-Regional Ties. In *Inter-Regional Ties in Costa Rican Prehistory: Papers Presented at a Symposium at Carnegie Museum of Natural History, Pittsburgh, April 27, 1983*, edited by Esther Skirboll and Winifred Creamer, pp.187-202. Bar International Series Vol. 226, Oxford.
- Debert, Jolene
2005 *Raspadita, A New Lithic Tool Type from Santa Isabel, Nicaragua*. M.A. thesis. University of Manitoba, Winnipeg, MB.
- Debert, Jolene and Barbara Sheriff
2007 Raspadita: A New Lithic Tool from the Isthmus of Rivas, Nicaragua. *Journal of Archaeological Science* 34:1889-901.
- Dennett, Carrie
2016 *The Ceramic Economy of Pre-Columbian Pacific Nicaragua (AD 1–1250)*. Ph.D. dissertation. Department of Anthropology and Archaeology, University of Calgary, Calgary, AB.
- 2017 *Ceramic Manufacture and Exchange in Pre-Columbian Pacific Nicaragua: A Compositional Perspective*. Paper presented at the 50th Annual Chacmool Conference, November 8-12, University of Calgary, Calgary, AB.
- Dull, Robert, John Southon, Steffen Kutterolf, Armin Freundt, David Wahl, and Payson Sheets
2010 *Did the Ilopango TBJ Eruption Cause the AD 536 Event*. AGU Fall Meeting, Abstracts.
- Espinoza Pérez, Edgard, and Dominique Rigat
1994 Gran Nicoya y la región de Chontales, Nicaragua. *Vínculos: Revista de Antropología del Museo Nacional de Costa Rica* 18-19(1992-93):139-56.
- Field, Les
1998 Post-Sandinista Ethnic Identities in Western Nicaragua. *American Anthropologist* 100(2): 431-43.
- 1999 *The Grimace of Macho Ratón: Artisans, Identity and Nation in Late Twentieth Century Western Nicaragua*. Duke University Press, Durham, NC.
- Fletcher, Laraine A., Ronaldo Salgado Galeano, and Edgard Espinoza Pérez
1993 Gran Nicoya y el norte de Nicaragua. In *30 Años de Arqueología en Nicaragua*, edited by Jorge Eduardo Arellano, pp. 103-14. Museo Nacional de Nicaragua, Instituto Nicaragüense de Cultura, Managua, Nicaragua.
- 1994 Gran Nicoya y el norte de Nicaragua. *Vínculos: Revista de Antropología del Museo Nacional de Costa Rica* 18-19 (1992-93):173-89.
- Flint, Earl
1882 Antiquities in Nicaragua. *American Antiquarian* 4:289-302.
- 1884 Human Footprints in Nicaragua. *American Antiquarian and Oriental*

- Journal* 6:112-14.
- 2 vols. Universite de Paris I (Panthéon-Sorbonne), Paris.
- Fowler, William R., Jr.
1981 *The Pipil-Nicarao of Central America*. Ph.D. dissertation, Department of Archaeology, University of Calgary. Calgary, AB.
- 1987 Cacao, Indigo, and Coffee: Cash Crops in the History of El Salvador. *Research in Economic Anthropology* 8:139-67.
- 1989 *The Cultural Evolution of Ancient Nahua Civilizations: The Pipil-Nicarao of Central America*. The Civilization of the American Indian Series Vol. 194. University of Oklahoma Press, Norman, OK, and London.
- Gassiot Ballbe, Ermengol, Ivan Briz Rodino, Ignacio Clemente Conte, and José Antonio López Saez
2003a El Cascal de Flor de Pino. Una civilización desconocida en la costa Atlántica de Nicaragua. *Revista de Arqueología* 268: 32-37.
- Gassiot Ballbe, Ermengol, Ignacio Clemente Conte, and L. Lechado
2003b El Cascal de Flor de Pino: Descubrimiento, planimetría y datación de un conjunto arqueológico en la Costa Atlántica de Nicaragua. *Revista de Historia y Ciencias Sociales* 2: 3-15.
- Geurds, Alex
2017 Discussant for Symposium "Nicaragua News: Recent Archaeological Research in Nicaragua", Society for American Archaeology's 82nd Annual Meeting, March 29 – April 2, Vancouver, BC.
- Gorin, Franck
1990 *Archeologie de Chontales, Nicaragua, These de Nouveau Doctorat*,
1992 *Arqueología de Nicaragua. Trace* 21:22-35.
- Graham, Mark M.
1985 *The Stone Sculpture of Costa Rica: The Production of Ideologies of Dominance in Prehistoric Rank Societies*. Ph.D. dissertation, University of California, Los Angeles, CA.
- Gruhn, Ruth
1978 A Note on Excavations at El Bosque, Nicaragua, in 1975. In *Early Man in America: From a Circum-Pacific Perspective*, edited by Alan Lyle Bryan, pp. 261-62. University of Alberta Press, Edmonton, AB.
- Guerrero Miranda, Juan Vicente, and Aida María Blanco Vargas
1987 *La Ceiba: Un asentamiento policromo medio en el Valle del Tempisque con actividades funerarias (G-60-LC)*. Licentiate's thesis, Escuela de Antropología y Sociología, Universidad de Costa Rica, San José, Costa Rica.
- Haberland, Wolfgang
1963a Cerámica de Ometepe. *Nicaragua Indígena* 5(36):25-38.
- 1963b Ometepe 1962-1963. *Archaeology* 16 (4):287-89.
- 1966 Early Phases on Ometepe Island, Nicaragua. *Proceedings, 36th International Congress of Americanists* 1:399-403. Seville-Madrid.
- 1986 Settlement Patterns and Cultural History of Ometepe Island, Nicaragua: A Preliminary Sketch. *Prehistoric Settlement Patterns in Costa Rica*, edited by Frederick W. Lange and Lynette Norr.

- Journal of the Steward Anthropological Society* 14(1982-83):369-86. Urbana, IL.
- 1992 The Cultural History of Ometepe Island: Preliminary Sketch (Survey and Excavation, 1962-1963). In *The Archaeology of Pacific Nicaragua*, pp. 63-117. University of New Mexico Press, Albuquerque, NM.
- Hardy, Ellen Teresa
1983 *Burials and Possible Status Distinctions at Nacascolo, Costa Rica*. M.A. thesis, Dept. of Anthropology, University of California, Los Angeles, CA.
- 1992 *The Mortuary Behavior of Guanacaste/Nicoya: An Analysis of Precolumbian Social Structure*. Ph.D. dissertation, Department of Anthropology, University of California, Los Angeles, CA.
- Healy, Paul Francis
1974 *Archaeological Survey of the Rivas Region, Nicaragua*. Ph.D. dissertation, Department of Anthropology, Harvard University, Cambridge, MA.
- 1980 *Archaeology of the Rivas Region, Nicaragua*. Wilfred Laurier University Press, Waterloo, ON.
- Hoar, Bryanne
2006 The Isthmus of Plenty: Faunal Analysis for the Site of Santa Isabel "A", Rivas, Nicaragua. Honour's thesis, Department of Archaeology, University of Calgary, Calgary, AB.
- Hoopes, John
1987 *Early Ceramics and the Origins of Village Life in Lower Central America*. Ph.D. thesis, Department of Anthropology, Harvard University, Cambridge, MA.
- 1994a The Tronadora Complex: Early Formative Ceramics in Northwestern Costa Rica. *Latin American Antiquity* 5 (1):3-30.
- 1994b Ceramic Analysis and Cultural History in the Arenal Region. In *Archaeology, Volcanism, and Remote Sensing in the Arenal Region, Costa Rica*, edited by Payson D. Sheets and Brian R. McKee, pp. 158-210. University of Texas Press, Austin, TX.
- Hughes, Neil
1980 *Urn Burial in Prehistoric Nicaragua*. M.A. thesis, Department of Anthropology, George Washington University, Washington, D.C.
- Lange, Frederick W.
1971 *Culture History of the Sapoá River Valley, Costa Rica*. Ph.D. dissertation, Department of Anthropology, University of Wisconsin, WI.
- 1984 The Greater Nicoya Archaeological Subarea. In *The Archaeology of Lower Central America*, edited by Frederick W. Lange and Doris Z. Stone, pp. 165-94. University of New Mexico Press, Albuquerque, NM.
- Lange, Frederick W. (editor)
1988 *Costa Rican Art and Archaeology: Guanacaste*. Manuscript on file with the National Museum of Costa Rica, San Jose, Costa Rica.
- Squier, Ephraim G.
1852 *Nicaragua: Its People, Scenery, Monuments and the Proposed Interoceanic Canal*. 2 vols. Appleton Co., New York, NY.
- 1853 *Observations on the Archaeology and Ethnology of Nicaragua*. Transactions, American Ethnological Society 3(1).

- 1992 *Wealth and Hierarchy in the Intermediate Area*. Dumbarton Oaks Research Library and Collection, Washington, D.C.
- 1993 *Precolumbian Jade: New Geological and Cultural Interpretations*. University of Utah Press, Salt Lake City, UT.
- 1995 *Descubriendo las huellas de nuestros antepasados: El proyecto arqueología de las zona metropolitana de Managua*. Alcaldía de Managua, Managua, Nicaragua.
- 1996a *Abundante cooperación vecinal: La segunda temporada del proyecto arqueología de la Zona metropolitana de Managua*. Alcaldía de Managua, Managua, Nicaragua.
- 1996b *Paths to Central American Prehistory*. University Press of Colorado, Niwot, CO.
- Lange, Frederick W., Peter Ryder, and Richard M. Accola
1986 Bay of Culebra Survey. *Prehistoric Settlement Patterns in Costa Rica*, edited by Frederick W. Lange and Lynette Norr. *Journal of the Steward Anthropological Society* 14(1982-83):25-36. Urbana, IL.
- Lange, Frederick W., Payson Sheets, and Aníbal Martínez
1986 Prospección preliminar en la Costa Pacífica de Nicaragua - 1983. *Prehistoric Settlement Patterns in Costa Rica*, edited by Frederick W. Lange and Lynette Norr. *Journal of the Steward Anthropological Society* 14(1982-83):361-68. Urbana, IL.
- Lange, Frederick W., Payson D. Sheets, Aníbal Martínez, and Suzanne Abel-Vidor
1992 *The Archaeology of Pacific Nicaragua*. University of New Mexico Press, Albuquerque, NM.
- Lange, Frederick W., and Doris Z. Stone (editors)
1984 *The Archaeology of Lower Central America*. University of New Mexico Press, Albuquerque, NM.
- Lange, Frederick W., and Lynette Norr (editors)
1986 *Prehistoric Settlement Patterns in Costa Rica*. *Journal of the Steward Anthropological Society* 14(1982-83):25-36. Urbana, IL.
- Langlois, Krista
2017 Tracing Oral Histories to Solve a Longstanding Human-Migration Puzzle. *The Atlantic*, October 4, 2017. <https://www.theatlantic.com/science/archive/2017/10/when-indigenous-knowledge-could-solve-what-archaeology-missed/541764/>, accessed January 13, 2018.
- Leullier-Snedeker, Natasha
2013 *Changing Identities in Changing Times: Gendered Roles and Representations through the Ceramic Figurines of Greater Nicoya*. M.A. thesis, Department of Archaeology, University of Calgary, Calgary, AB.
- López-Forment, Angélica
2008 *Aprovechamiento cultural de los recursos faunísticos en el Sitio Santa Isabel, Nicaragua*. Licenciatura thesis, Escuela Nacional de Antropología e Histórica, México, D.F.
- Lothrop, Samuel Kirkland
1926 *Pottery of Costa Rica and Nicaragua*. 2 vols. Memoir No. 8. Museum of the American Indian. Heye Foundation, New York, NY.

- Magnus, Richard
1974 *The Prehistory of the Miskito Coast of Nicaragua: Study in Cultural Relationships*. Ph.D. dissertation, Yale University, New Haven, CT.
- McCafferty, Geoffrey G.
2008 Domestic Practice in Postclassic Santa Isabel, Nicaragua. *Latin American Antiquity* 19(1): 64-82.
- 2011 Etnicidad chorotega en la frontera sur de Mesoamérica. *La Universidad: Órgano científico-sociocultural de la Universidad de El Salvador* 14(abril-junio):91-112.
- McCafferty, Geoffrey G., and Carrie L. Dennett
2013 Ethnogenesis and Hybridity in Proto-Historic Nicaragua. *Archaeological Review from Cambridge* 28(1):191-215.
- McCafferty, Geoffrey G., and Sharisse McCafferty
2008 Spinning and Weaving Tools from Santa Isabel, Nicaragua. *Ancient Mesoamerica* 19(1): 143-56.
- 2009 Crafting the Body Beautiful: Performing Social Identity at Santa Isabel, Nicaragua. In *Mesoamerican Figurines: Small-Scale Indices of Large-Scale Social Phenomena*, edited by Christina T. Halperin, Katherine A. Faust, Rhonda Taube, and Aurore Giguët, pp. 183-204. University Press of Florida Press, Gainesville, FL.
- 2011 Bling and Things: Ornamentation and Identity in Pacific Nicaragua. In *Identity Crisis: Archaeological Perspectives on Social Identity. Proceedings of the 42nd Annual Chacmool Archaeology Conference*, edited by Lindsey Amundsen-Meyer, Nicole Engel and Sean Pickering, pp. 243-252. The Archaeological Association of the University of Calgary, Calgary, AB.
- McCafferty, Geoffrey G., Oscar Pavón Sánchez, and Ligia M. Galeano Rueda
2013 Investigaciones preliminares en Sonzapote, Isla Zapatera/Preliminary Investigations at Sonzapote, Zapatera Island. *Mi Museo y Vos* 26:5-13.
- McCafferty, Geoffrey G., Silvia Salgado González, and Carrie L. Dennett
2009 ¿Cuándo llegaron los mexicanos? La transición entre los periodos Bagaces y Sapoa en Granada, Nicaragua. Proceedings of the III Congreso Centroamericano de Arqueología en El Salvador, October 2009. Museo Nacional de Antropología Dr. David J. Guzman, San Salvador, El Salvador.
- McCafferty, Geoffrey G., and Larry Steinbrenner
2005a Chronological Implications for the Santa Isabel Project, Nicaragua. *Ancient Mesoamerica* 16(1):131-146.
- 2005b The Meaning of the Mixteca-Puebla Stylistic Tradition on the Southern Periphery of Mesoamerica: The View from Nicaragua. In *Art for Archaeology's Sake: Material Culture and Style across the Disciplines: Proceedings of the 33rd Annual Chacmool Conference*, edited by Andrea Waters-Rist, Christine Cluney, Calla McNamee, and Larry Steinbrenner, pp. 282-92, The Archaeological Association of the University of Calgary, Calgary, AB.
- Moreau, Jean-François
1983 *L'adaptation maritime préhistorique au site Vidor, Costa Rica*. Ph.D. dissertation, University of Montreal, PQ.

- 1984 Subsistence (sic) Changes on the Coast of the Greater Nicoya Region. In *Inter-Regional Ties in Costa Rican Prehistory: Papers Presented at a Symposium at Carnegie Museum of Natural History, Pittsburg, April 27, 1983*, edited by Esther Skirboll and Winifred Creamer, pp.129-41. Bar International Series Vol. 226, Oxford.
- Motolinía, Fray Toribio
1950 *Motolinía's History of the Indians of New Spain*. Translated and edited by Elizabeth Andros Foster. Documents and Narratives Concerning the Discovery and Conquest of Latin America No. 4. The Cortes Society, Berkeley, CA.
- Navarro, Rigoberto
1993 Labor del Departamento de Arqueología (1980-85). In *30 Años de Arqueología en Nicaragua*, edited by Jorge Eduardo Arellano, pp. 19-22. Museo Nacional de Nicaragua. Instituto Nicaragüense de Cultura, Managua, Nicaragua.
- Navarro Genie, Rigoberto
2007 *Les sculptures préhispaniques en pierre du versant Pacifique du Nicaragua et du nord-ouest du Costa Rica et leur contexte archéologique (650 – 1830 apr. J.-C.)*. Ph.D. dissertation, Anthropologie, Ethnologie, Archéologie, Université de Paris I, Panthéon-Sorbonne, Paris, France.
- Niemel, Karen
2003 *Social Change and Migration in the Rivas Region, Pacific Nicaragua (1000 BC - AD 1522)*. Ph.D. dissertation, State University of New York at Buffalo, NY.
- Niemel, Karen, Manuel Román Lacayo, and Silvia Salgado González
1998 La secuencias ceramicas de los periodos Sapoá (800-1350 DC) y Ometepe (1350-1522 DC) en el Pacifico sur de Nicaragua. In *XI Simposio de Investigaciones Arqueológicas en Guatemala, 1997*, edited by Juan Pedro Laporte and Hector Escobedo, pp. 677-83. Museo Nacional de Arqueología y Etnología, Guatemala.
- Norr, Lynette Caryl
1991 *Nutritional consequences of prehistoric subsistence strategies in lower Central America*. Ph.D. dissertation. University of Illinois at Urbana-Champaign, IL.
- Norweb, Albert Holden
1961 *The Archaeology of the Greater Nicoya Subarea*. Manuscript on file. Peabody Museum of Archaeology and Ethnology. Harvard University, MA.
- 1964 Ceramic Stratigraphy in Southwestern Nicaragua. In *Actas y memorias 35th International Congress of Americanists, Mexico, D.F., 1962*. 1:551-61.
- Oviedo y Valdés, Gonzalo Fernández de
1851-55 *Historia general y natural de las Indias, islas y tierra-firme del mar oceáno*. 4 vols. J. Amador de los Ríos, editor. Madrid.
- Page, William D.
1978 The Geology of the El Bosque Archaeological Site, Nicaragua. In *Early Man in America from a Circum-Pacific Perspective*, edited by Alan Lyle Bryan, pp. 231-60. University of Alberta Press, Edmonton, AB.
- Paling, Jason, Justin Lowry, and Hannah Dutton
2017 *Ceramics from Chiquilistagua, A Chemical Analysis*. Paper presented at the 50th Annual Chacmool Conference, November 8-12, University of Calgary, Calgary, AB.

- Paling, Jason, Justin Lowry, and Hannah Dutton
2017 *Ceramics from Chiquilistagua, A Chemical Analysis*. Paper presented at the 50th Annual Chacmool Conference, November 8-12, University of Calgary, Calgary, AB.
- Plunkett, Hazel
1999 *Nicaragua In Focus: A Guide to the People, Politics and Culture*. Interlink Books, New York, NY.
- Rigat, Dominique
1992 *Prehistoire au Nicaragua: Region Juigalpa, Departement de Chontales*. Tesis de Doctorado, Universite de Paris I (Pantheon-Sorbonne).
- Rigat, Dominique, and Rafael González Rivas
1996 Preliminary Research in Chontales and the Lake Managua Basin, Nicaragua. In *Paths to Central American Prehistory*, edited by Frederick W. Lange, pp. 177-90. University Press of Colorado, Niwot, CO.
- Rigat, Dominique, and Franck Gorin
1993 "Proyecto Chontales": Informe Final. In *30 Años de Arqueología en Nicaragua*, edited by Jorge Eduardo Arellano, pp. 93-96. Museo Nacional de Nicaragua. Instituto Nicaragüense de Cultura, Managua, Nicaragua.
- Román Lacayo, Manuel A.
2013 *Social and Environmental Risk and the Development of Social Complexity in Precolumbian Masaya, Nicaragua*. Ph.D. dissertation, Department of Anthropology, University of Pittsburgh, Pittsburgh, PA.
- Salgado González, Silvia
1996 *Social Change in a Region of Granada, Pacific Nicaragua (1000 B.C. - 1522 A.D.)*. Ph.D. dissertation, State University of New York at Albany, NY.
- Salgado González, Silvia, and Marlin Calvo
1983 *Análisis del material cerámico de la Op. 1-A del sitio G-89-NA-Nacasclo Bahía Culebra, Guanacaste*. Aporte presentado a la II Reunión sobre Cerámica del la Gran Nicoya, Denver, CO.
- Salgado González, Silvia, Marlin Calvo, and Leidy Bonilla
1981 *Reporte de las Excavaciones en el Sitio G-227-Salinas, Bahía Culebra, Guanacaste*. Manuscript on file with the National Museum of Costa Rica, San Jose, Costa Rica.
- Schmidt, Peter J.
1963 Dos monumentos de piedra de la isla de Ometepe. *Ethnos* 28(2-4):137-46.
- 1966 El Respiradero, antiguo lugar de ofrenda en el Cerro Concepción, Isla de Ometepe, Nicaragua. *Proceedings, 36th International Congress of Americanists* 1:429-33. Seville-Madrid.
- Seitz, Don C. (editor)
1911 *Letters from Francis Parkman to E.G. Squier*. The Torch Press, Cedar Rapids, IA.
- Snarskis, Michael J.
1981 The Archaeology of Costa Rica. In *Between Continents/Between Seas: Precolumbian Art of Costa Rica*, edited by Elizabeth P. Benson, pp. 15-84. Harry N. Abrams, Inc. Publishers, New York, NY.
- Squier, Ephraim G.
1852 *Nicaragua: Its People, Scenery, Monuments and the Proposed Interoceanic Canal*. 2 vols. Appleton Co., New York, NY.

- 1860 *Nicaragua: Its People, Scenery, Monuments, Resources, Condition, and Proposed Canal. Revised edition.* Harper & Brothers, New York, NY.
- Steinbrenner, Larry
2002 *Ethnicity and Ceramics in Rivas, Nicaragua, AD 800-1550.* M.A. thesis, Department of Archaeology, University of Calgary, Calgary, AB.
- 2010 *Potting Traditions & Cultural Continuity in Pacific Nicaragua, AD 800-1350.* Ph.D. dissertation, Department of Archaeology, University of Calgary, Calgary, AB.
- 2016a Putting the Sacred Cow Out to Pasture: The Problematic Late Period Chronology of Greater Nicoya. Paper presented at the 49th Annual Chacmool Conference, November 9-11, University of Calgary, Calgary, AB.
- 2016b "Nicoya Polychromes" beyond Greater Nicoya: Las Vegas Polychromes in El Salvador and Honduras. Paper presented at the Society for American Archaeology's 81st Annual Meeting, April 6-10, Orlando, FL.
- Steinbrenner, Larry, and Geoffrey G. McCafferty
2018 A Critical Re-evaluation of Pacific Nicaragua's Late Period Chronology. In *The Archaeology of Greater Nicoya: Two Decades of Research in Nicaragua & Costa Rica*, edited by Larry Steinbrenner, Alexander Geurds, Geoffrey G. McCafferty, and Silvia Salgado González. Edited volume under preparation for University of Colorado Press.
- Stephens, John Lloyd
1841 *Incidents of Travel in Central America, Chiapas and Yucatan. 2 vols.* Harper & Brothers, New York, NY.
- 1843 *Incidents of Travel in Yucatan. 2 vols.* Harper & Brothers, New York, NY.
- Stone, Doris Z.
1984 A History of Lower Central American Archaeology. In *The Archaeology of Lower Central America*, edited by Frederick W. Lange and Doris Z. Stone, pp. 13-32. University of New Mexico Press, Albuquerque, NM.
- Sweeney, Jeanne W.
1975 *Guanacaste, Costa Rica: An Analysis of Precolumbian Ceramics from the Northwest Coast.* Ph.D. dissertation, Department of Anthropology, University of Pennsylvania, PA.
- Torquemada, Fray Juan de
1969 *Monarquia Indiana. 3 vols.* [1615]. Editorial Porrúa, S.A., Mexico.
- Tous Mata, Meritxell
2002 *De la Gran Nicoya precolombina a la provincia de Nicaragua, s. XV y XVI.* Doctoral dissertation. Universitat de Barcelona.
- Van Broekhoven, Laura N. K.
2002 *Conquistando lo invencible: fuentes históricas sobre las culturas indígenas de la región central de Nicaragua.* Mededelingen van her Rijksmuseum voor Volkenkunde. Leiden, the Netherlands.
- Whisnant, David E.
1995 *Rascally Signs in Sacred Places: The Politics of Culture in Nicaragua.* University of North Carolina Press, Chapel Hill, NC.

Wilke, Sacha

2012 *From Remains to Rituals: Exploring the Changing Mortuary Program at El Rayo, Nicaragua*. M.A. thesis, Department of Anthropology, The University of British Columbia, Vancouver, BC.

Wiley, Gordon Randolph, and Jeremy A. Sabloff

1993 *History of American Archaeology*. 3rd edition. Freeman Press, San Francisco, CA.

Wyckoff, Lydia L.

1971 *A Suggested Nicaraguan Pottery Sequence Based on the Museum Collection*. Indian Notes 58. Museum of the American Indian, Heye Foundation, New York, NY.

1974 The Nicaragua Archaeological Survey. *Indian Notes* 10(4):98-107.

1976 *The Role of Northwestern Nicaragua in the Relations between Mesoamerica and the Greater Nicoya Sub-Area*. M.A. thesis, Department of Anthropology, Wesleyan University, Middletown, CT.

Wyss, Susan

1983 *San Cristóbal Archaeological Site, Managua, Nicaragua: Site Report and Preliminary Ceramic Analysis*. M.A. thesis, Department of Anthropology, Texas A & M University, College Station, TX.

Zambrana Fernández, Jorge E.

2008 Excavaciones arqueológicas en Tepetate, Granada. *Mi Museo y Vos* 6:4–7.

ARCHAEOLOGICAL STUDIES AND DEVELOPMENT IN EL SALVADORE

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ABSTRACT

Archaeological and anthropological studies in El Salvador has been developed significantly by explorers and amateurs since the 19th century. For many years, the work focused on academic projects and little was known about the role that the State played in safeguarding and studying archaeological sites, beyond their registration. Rescue archaeology from development projects, such as dams, allowed for the generation of knowledge based on excavations at places that were previously ignored. By 1980, urbanism and migration started to increase; as a result, construction caused many sites to be destroyed. In the twenty-first century, more laws were created to protect, rescue, and disseminate the archaeological heritage. However, how does contract archaeology work? What are the problems concerning: qualified personnel, state and private pressures, and clear procedures for a better functioning of archaeology in El Salvador?

RESUMEN

Los estudios arqueológicos y antropológicos en El Salvador se han desarrollado de manera significativa desde los exploradores y aficionados del siglo XIX. Durante muchos años, los trabajos se enfocaron en proyectos académicos y poco se conocía del rol que el Estado tenía con respecto al estudio y salvaguarda de los sitios arqueológicos, más allá de su registro. La arqueología de rescate proveniente de proyectos de desarrollo como las hidroeléctricas, permitió la generación de conocimiento basado en excavaciones de sitios que eran previamente ignorados. En la década de 1980, la migración interna y el urbanismo comenzaron a incrementarse y como resultado de la construcción indiscriminada, voraz y descontrolada muchos sitios fueron destruidos. En el siglo XXI, se crearon leyes para la protección, rescate y difusión del patrimonio arqueológico. En la actualidad contamos con

la arqueología de contrato para ayudar al Estado con la protección y estudio de los sitios arqueológicos, sin embargo, cómo funciona la arqueología de contrato, cuáles son los problemas relacionados en cuanto al personal calificado, la presión privada y estatal y la creación de procedimientos más claros para los proyectos arqueológicos. En este último año (2017) se han aprendido lecciones de cómo la corrupción aún está presente en altos estratos y dentro del mismo gremio obligando a cambiar las leyes existentes por leyes más duras que cierren vacíos existentes en las leyes actuales.

INTRODUCTION

This document's main focus is to show how these two careers (anthropology and archaeology) have developed in El Salvador, what are the problems that are being faced in these fields and how are we trying to respond to them. The first section discusses about the history of archaeological and anthropological projects and their contributions to the study of the country, the culture of their people and the creation of laws to try to stop the misuse of archaeological heritage. The second section is a brief summary of how the profession of archaeology and anthropology developed in El Salvador. The third and final section is about the contribution of new professionals to the field.

ARCHAEOLOGICAL AND ANTHROPOLOGICAL BACKGROUND IN EL SALVADOR

Carlos Lara Martínez (2011) mentions that anthropological studies should have been undertaken since colonial times, based upon writings of friars and conquerors. These documents can be used as an important tool in archaeological studies that will help understand the use of some materials found in this kind of contexts. This is relevant for El Salvador because there are only three possible glyphs from preclassic or classic times that have been found to this day: the first is Monument 1 from El Trapiche Group, located in Chalchuapa, Santa Ana, in the west of El Salvador. It is a carved stela that is fragmented and battered making it difficult to read (Sharer 1978). The second is a carved bottle (perfumera) located in the Museo Nacional de Antropología "Dr. David J. Guzmán" (Card 2014) and the third is another fragment of a stela found on El Trapiche Group in 2018 by Ph-D. Nobuyuki Ito and is currently being analysed (personal communication with Nobuyuki Ito as supervisor of his project). Other glyphs (that are currently in study) have been found from colonial times and are in association with documents that use nahuat glyphs and old castilian (base on workshop with Margarita Cossich) and these finds have opened new methods of interpretation. Use of historic-period documents to supplement archaeological work has not been utilized to the fullest by many archaeologists, but can help to understand the vision of the conquerors and the dynamics of the

indigenous people of that particular time.

In the mid 1800s and early 1900s travelers and explorers carried out political-commercial voyages, which were also used to gain new territory and conquer populations. Ephraim G. Squire (1849-1853) described the geography, weather and population of the region. He provided relevant anthropological data with his studies presented in *Notes on Central America: Honduras and El Salvador*. Simeon Habel (1878) published *The Sculptures of Santa Lucia Cosumalwhuapa in Guatemala with an account of travels in central america and on the westerns coast of south america*. He provided information about archaeological sites, indigenous communities, language, traditional costumes, and physical appearance. Additionally, Karl Sapper (1895) documented the geography, population, and archaeological sites. Others came with a more anthropological perspective like Fernand Montessus de Ballore (1891), who provided valuable information on volcanology and archaeology in *"Le Salvador précolombien, études archéologiques"*. Carl Hartman (1897-1899) wrote *"Reconocimiento etnográfico de los Aztecas de El Salvador"*. He focused on the Pipiles of Nahuizalco; registering anthropometric measurements, photographs, linguistic variation and traditions. Walter Lehmann (1920), an ethnologist, documented several indigenous communities and their languages in Central America. Leonhard Schultze Jena (1935) centered on the culture and linguistic variation on Izalco community, in his document *"Mitos en la lengua materna de los pipiles de Izalco en El Salvador"*.-

(Habel 1878; Montessus de Ballore 1891; Termer, s.f; Castellón Huerta 1992; Cobos 1995; Hartman 2001; Squire 2004 and Rafael Lara Martínez 2014)

Their national contemporaries were also interested in knowing about the indigenous people and their cultural aspects. David J. Guzmán (1845-1927), spent part of his life studying and exhibiting the indigenous culture in the Museo Nacional de Antropología "Dr. David J. Guzmán". Darío González (1892), Leopoldo A. Rodríguez, Juan J. Laínez and others were dedicated to describing archaeological sites. The time in which they lived was economically variable and not so long after the independence from Spain in 1821. Attempts were made to amalgamate the different identities to conform a single state (Spanish, black, mestizos and indigenous people) instead of having different groups living in the same space. By the 1900s this vision had changed; a reflection of this is Atilio Peccorini's explanation about why the scholars did not focus on El Salvador in the publication *"Algunos datos sobre arqueología de la República del Salvador"* (1913) His answer was that El Salvador did not have monumental architecture and the indigenous culture was getting lost. He also tried to expose the rich cultural baggage he and his colleagues had observed, and described archaeological sites. Santiago I. Barberena (1914) in the first section of his book, tried to explain how the American continent was populated. In the second section he discussed about the groups that came to El Salvador's territory. Finally he mentioned the Spanish

conquest in *"Historia Antigua y de la Conquista de El Salvador"*. A peculiarity that all of them have in common, is their occupations: a geologist, an encyclopedist, doctors and geographers. As part of the interest in conserving the indigenous materials from the groups of aforementioned people, the first legislative decree created was aproved in 1903 with the name "Prohibición en la Extracción de Antigüedades y Objetos Arqueológicos" Prohibition for the Extraction of Antiquities and Archaeological Objects (Peccorini 1913; Barberena, 1914 y *Revista de Etnología, Arqueología y Lingüística*, 1926; *Anales del Museo Nacional de Antropología* "David J. Guzmán", 1950 y Cobos, 1995, *Ley Especial de Protección al Patrimonio Cultural de El Salvador*, 2006). This was long after independence and the state was economically stable. The change of economy based on indigo pigment to coffee cultivation made the state a lot stronger and more stable.

Around 1915, a new group of scholars started to work on the archaeology of the country. Herbert J. Spinden and Friedrich Weber focused creating a cultural sequence and tentative chronologies; the problem with this was that they did not use registered archaeological contexts. Others focused on regional research for archaeological settlements and published multiple lists of sites. Some of the scholars that worked on these were Jorge Lardé y Arthés (1891-1928), Samuel Lothrop (1892-1965), John M. Longyear (1944), Stanley H. Boggs (1943-1990), Franz Termer (1966) and Wolfgang Haberland. These group of professionals

were anthropologists, archaeologists and geologists. They excavated using geological stratigraphic methodology (Cobos, 1995). A few of them were working with the State, others with the "Universidad de El Salvador" and the "Instituto Tropical de Investigaciones Científicas" that was located at the same university. For this period of time, the economic stability from coffee cultivation made it possible for the state to focus on cultural aspects.

Through the years, the correlation between volcanic eruptions and archaeological cultural material got stronger. The work of Lardé y Arthés (1917) emphasized that the white ash that was in sites near the central part of the country came from Ilopango volcano (now Lake Ilopango). He verified the existance of materials at both ends of the stratums that were considerably different from each other. Nowadays this eruption is know as TBJ (Tierra Blanca Joven) and is still used as temporal marker between the Preclassic Period (1500 BCE - 200 AD) and the Classic Period (200 - 900 AD). Numerous studies show different dates for this event, which vary from 260 AD \pm 114 (Sheets, 1983), 429 AD [2 sigma = 408-536 AD](Dull et al., 2001), mid-fourth century to mid-sixth century (Kitamura, 2010) and 535 AD (Dull et al., 2010). Lothrop also established chronologies by correlating associations of ceramics and ethnic groups. He postulated an early occupation (Preclassic), Maya Culture (Classic) and Pipil (Postclassic). Lardé y Arthés and Lothrop worked together in 1926 at the archaeological site of Cerro El Zapote

located in Barrio San Jacinto, San Salvador and gave it a partial chronology. In 1929, Antonio Sol excavated Cihuatan (State Archaeological Park), for the first time using archaeological methodology. This site is from the Early Postclassic Period. Parallel to this work, Benigna Larín de Lardé was compiling dictionaries from Lenca languages; Don Prospero Arauz wrote about Nahuatl language; and Lardé y Arthés was publishing about migration of Chorotegas to El Salvador. In 1931, there was a change in the state: it switched from a civil government to a military government. General Maximiliano Hernández Martínez carried out a coup d'état and murdered hundreds of indigenous people and peasants. His goal was to whitewash the Salvadorean population physically and culturally. The context that was mentioned before was very cruel and drastically interrupted the life of many people: the politics and civil rights were torn apart and laws were changed. For example, the legislative decree created and approved in 1903 was derogated in 1935, a few years after the coup d'état. A new one was approved in 1935 and derogated a year later in 1936; the same year another one was approved and was not changed until the 1980s (Revista de Etnología, Arqueología y Lingüística, 1926; Ley Especial de Protección al Patrimonio Cultural de El Salvador 2006).

Part of the problems discussed were later reflected on by the professionals that came after. The massive murder led to a deterioration in language speakers in a brutal way, forcing the people to lose the way they had lived and dressed for years, making it

impossible to talk or mention what had happened for decades. On academic front the situation was not well documented, and therefore not a topic of study.

In the 1940s a group of United States archaeologists worked on state archaeological parks. San Andrés was studied by John and Chris Dimick, Maurice and Muriel Ries, and Stanley Boggs. Tazumal was studied by Boggs, who also worked on several other sites in El Salvador for almost 50 years. He tried to create careers for "Universidad de El Salvador" along with other professional in anthropology at a university level. Jonh M. Longyear (1944) worked on the center and east side of the country, while Boggs worked on the center and west side. Escamilla and Fowler (2011) mention that the theoretical current used at the time was the Cultural-Historical approach. This theory focused on migration and diffusion, and not only cultural stages. Other scholars like Haberland (1957), Coe and Navarrete explored sites like Atiquizaya, Atalaya and El Trapiche (Cobos 1995).

Richard Adams carried out a regional anthropological survey but his work was not known by the Salvadorean scholars (Lara Martínez 2011). His study, named *Cultural surveys of Panama-Nicaragua-Guatemala-El Salvador-Honduras*, provides information about the people, culture, use of land, transport, trade, social structure, politics, religion, spirituality, of the regions he visited. On the other hand Alejandro Dagoberto Marroquín focused his work on the everyday life, economy, family, political, and religious organization of Panchimalco and San Pedro

Nonualco between 1950-1970. The theoretical approach applied by Marroquín was framed in the paradigm of Marxist social anthropology. He explained that the ethnic differences are determined by the economic differences in the structure of social power (Lara Martínez 2011). He also worked for the "Universidad de El Salvador" trying to create the departments of anthropology, archaeology, history and social science, unfortunately with no success (Escamilla and Melgar 2013).

By the 1960s two major archaeological projects were executed, that became the basis of the ceramic sequences that are still in use today: Chalchuapa Archaeological Project by Robert J. Sharer (1978) and Quelepa Archaeological Project by Wyllys Andrews V. (1976). The perspectives applied were diachronic and synchronous for the different cultures that populated certain territories. The first procesual interpretation made in the country was based on local and regional interaction, architecture, and using of C¹⁴ for absolute dating (Cobos 1995; Escamilla and Fowler 2011). In the decades of the 1970s and 1980s the state received multiple reports of new sites, reconnaissances, fortuitous finds and excavations as part of every day and academic work. The State was in charge of development projects (such as dams), and performing rescue archaeology where national and international groups worked together to cover extensive regions. Many professionals that studied outside the country came to conduct work, but many of them did not stay due to civil war in the country.

Other types of work included small excavations, such as work at Jayaque by Casasola (1973), Hacienda Colima by Crane (1974), Cihuatán by Hernández (1974-1975) and Bruhns (1975-1978), Hacienda Las Flores and El Tanque by Fowler (1975), Hacienda La Presita by López (1977), Gruta del Espíritu Santo by Haberland (1977) and many others. The academic projects and mitigation work for the dams were multidisciplinary projects. They aided in understanding human beings and their ecosystems within the adaptation process and the transformation of societies using the framework of ecological archaeology. The Cerron Grande dam (1985) studied by Boggs, Crane, Fowler and Earnest and the Academic Protoclassic Project studied by Payson Sheets followed this model. By this time Boggs was in charge of the archaeological department directed by the state and was also working on the San Lorenzo Dam (1979). Other sites like Cara Sucia were investigated by the state with technicians like Jorge Mejía and Manuel Murcia, helped by archaeologists like Paul Amaroli (Cobos 1995; Escamilla y Fowler 2011; Herrera, in press)

In the 1960s the State anthropological work was focused on the idea of creating a national identity. This idea was based on the rescue of indigenous traditions (Ramírez y Rodríguez 1993). Between 1970 and 1980 the work of Segundo Montes (Spanish) was to examine the institution of Compadrazgo. Carlos Rafael Cabarrús (Guatemalan) centered his work on peasant movements, and the transcendence of religion in the construction of revolutionary consciousness.

The interpretation from outside the state according to Lara Martínez (2011) was that they were focused on what he expresses as "folkloristic anthropology", this vision was to promote traditional popular culture. As mentioned the anthropologists working on this rescue were Concepción Clará de Guevara, José Antonio Aparicio and Gloria Aracely Mejía de Gutiérrez. What they were trying to do was an exploratory ethnographic work of each department: describing, registering, classifying and acquiring materials for the exhibition at the Museo Nacional de Antropología "Dr. David J. Guzmán". By the 1970s and 1980s the work in archaeology and anthropology was getting difficult to continue due to the civil war, and in both cases most of the work stopped. The State order was to discontinue their work and to focus only on the national strategic plan, which did not allow for a deepening of knowledge in diverse subjects. The economy was bad, places were destroyed, archaeological sites were looted, and people killed, making cultural aspects "left out". After that the 1936 approved legislative decree was derogated in 1987 and changed to a law called "Ley Transitoria para Salvaguardar los Bienes que Forman parte del Patrimonio Cultural Salvadoreño" Transitory law to safeguard property that forms part of the Salvadorean cultural heritage (Ley Especial de Protección al Patrimonio Cultural de El Salvador 2006).

At the end of the 20th century and the beginning of the twenty first century, the ethnographic work focused on the social life and culture of indigenous people and

peasants. The difference of this work is that it does not stay as a local interpretation anymore. The regional interpretations start to become the main focus through the theoretical current of hybrid cultures, which are heavily used because of the interaction of prehispanic, colonial and republican groups (Lara Martínez 2011). Nowadays, the subjects of study cover a wide range, from Urban anthropology, to social conflicts between Maras and Pandillas, and minority groups: LGTB, indigenous groups, human migration, etc.

For the archaeology sector in the 1990s the construction projects started to develop faster: some developments were in the middle of big archaeological settlements like Madre Selva, Vía del Mar and Cuscatlán. Studies were carried out in different times as part of construction requirements. Academic projects were developed in sites such as Cara Sucia by Amaroli (1987), Valle del Río Ceniza by Sampeck and Earnest (1994-1995), El Carmen by Demarest, Amaroli and Arroyo (1989, the oldest recorded site in the country, dating to 1500 BCE using C¹⁴), etc. In 1993 the law of 1987 was derogated and change for "Ley Especial de Protección al Patrimonio Cultural de El Salvador" Special Law for the Protection of Cultural Heritage of El Salvador (Ley Especial de Protección al Patrimonio Cultural de El Salvador, 2006). In this same year Joya de Cerén became the first and only UNESCO World Heritage archaeological site for El Salvador, a major event, that was a joint effort from the state and Payson Sheets. His archaeological theoretical current is based on procesual

archaeology, which focuses on cultural processes using scientific methods and multidisciplinary approximations. This is one of the state park sites that has had continuous study since its initial discovery until the present day. Other relevant aspects for this decade is the Japanese team that came to work at Chalchuapa. Their work was used to transform Casa Blanca archaeological site into a state park. They also were in charge of forming the first generation of Salvadorean archaeologists to graduate in El Salvador. Until this moment all the professionals were formed in Guatemala, Mexico, and the United State.

William Fowler had focused on historical archaeology in Ciudad Vieja since 1988. When the first generation of archaeologists were studying, they were also working for the "Departamento de Arqueología de CONCULTURA" supervised by José Vicente Genoves. With the work of Fowler they start using the theoretical view of landscape archaeology. The first generation, from 1995 to 2000, was composed of Fabricio Valdivieso, Claudia Ramírez, Roberto Gallardo, Marlon Escamilla, and Heriberto Erquicia. They started to focus on new fields like subaquatic archaeology, industrial archaeology, conservation, pictographic representations on rock surfaces, and others. Since that first generation, the number of archaeologists in El Salvador has grown to about 43, conducting research in areas of archaeology such as: archaeology of war, speleology, urban, gender, domestic, biological, iconography, landscape, and others. There are

around 55 people working in different fields of anthropology; even though this career is the newer of the two, it has more people nationwide who have graduated from the program.

THE ORIGIN OF ARCHAEOLOGY AND ANTHROPOLOGY AS A PROFESSION IN EL SALVADOR

"Universidad de El Salvador" tried four times to create faculty positions in archaeology and anthropology from 1962 to 1975. Certain people were involved in this: Alejandro Dagoberto Marroquín, Pedro Geoffroy Rivas and Stanley Boggs, who were prominent scholars in anthropology and archaeology. Despite these attempts, the professionals were sent to form themselves in universities of México, Guatemala, United States, Canada, Germany and The Netherlands. Most of them did not return to the country when the civil war was ongoing. Others returned when the war was over; for example: Gracia Imberton Deneke, Gregorio Bello-Suazo, Ana Lilian Ramírez de Bello-Suazo, Ana María Jarquín, Ramon Rivas, Carlos and Rafael Lara Martínez, José Antonio Aparicio, Concepción Clará de Guevara, etc. (Ramírez and Rodríguez, 1993; Personal communication with Ana Lilian Ramírez de Bello-Suazo). In 1995 "Universidad de San Jorge" inaugurated the positions for hires and created programs in archaeology, anthropology and history but the university was closed in 1997. "Universidad Tecnológica de El Salvador" kept the students from "Universidad San Jorge" and has overseen career development

from 1997 to the present. "Universidad de El Salvador" finally created faculty positions and programs for students in history in 2001, and anthropology in 2005.

CONTRIBUTIONS FROM THE NEW PROFESSIONALS TO REGULATE THE FIELD

For nearly a century, the laws in the country did not penalize the sale or destruction of cultural property and no legislation was created to standardized archaeological investigations, some attempts to save the cultural heritage as archaeological sites were carried out as land expropriation or expropriation attempts and ended up buying some of these lands. In 1993, after the civil war, the "Ley Especial de Protección al Patrimonio Cultural de El Salvador" Special Law for the Protection of Cultural Heritage of El Salvador was created. In 1996, the "Reglamento de la Ley Especial de Protección al Patrimonio Cultural de El Salvador" Regulation of the Special Law for the Protection of Cultural Heritage of El Salvador was created to help regulate the law. In 2007 the "Normativa de Regulación de Investigaciones Arqueológicas en El Salvador" Normative for the Regulation of Archaeological Research in El Salvador came into force, due to the work by Fabricio Valdivieso. He saw the necessity of establishing rules that every archaeologist must follow. He also saw possible faults on the part of the professionals and the problems that construction projects would generate in the field. Since 2012, new laws have been

added to regulate the construction requirements: "Reglamento a la Ley de Urbanismo y Construcción en lo Relativo a Parcelaciones y Urbanizaciones Habitacionales"; and in 2014 "Ley Especial de Agilización de Trámites para el Fomento de Proyectos de Construcción". This new regulations are being revised by the construction sector to take away the procedures of archaeology and paleontology that halt development. On the other hand, archaeology is revising the laws to stop the indiscriminate destruction of sites. It is stipulated that there are around 2000 sites in the country, with more than a 1000 sites registered in an area of 20,041 km².

"Ley Especial de Protección al Patrimonio Cultural de El Salvador" is a general law, it is in the constitution and it has legal gaps. The main function was to give some kind of protection to the cultural heritage. The Archaeology Direction established some procedures to prevent alteration of grounds before inspections. The first is named "Tripartito", and is for all kinds of situations; "Ventanilla Unica" is for social needs due to a natural disaster; and the last two, which tend to be less common: fortuitous finds and citizen complaints.

"Normativa de Regulación de Investigaciones Arqueológicas en El Salvador" was designed to regulate which professionals could work on archaeological projects, how much experience the professionals would need to earn state permission to work as archaeologists on investigations or construction projects, and

which are the procedures to follow for an archaeological project and possible sanctions due to malpractice.

"Reglamento a la Ley de Urbanismo y Construcción en lo Relativo a Parcelaciones y Urbanizaciones Habitacionales" works for settlements that were constructed years before. This is used to regulate modern settlements that were constructed at least ten years before 2012. "Ley Especial de Agilización de Trámites para el Fomento de Proyectos de Construcción" is used for future constructions. Almost all archaeologists, private or state-employed, have had the chance to express their different views on the different problems being faced as proposals to change laws are discussed.

Other issues to consider: there are only 43 archaeologists in the country, and not all of them are able to work in construction projects or investigations because they do not meet the requirements established by the Dirección de Arqueología and the Dirección General de Patrimonio Cultural y Natural de El Salvador, and the few that can are overwhelmed. The state is also working at capacity and the construction sector knows this. They are trying to use the lack of available resources and qualified archaeologists to eliminate the procedures saying that the state cannot protect everything, or that nothing is ever found. Their arguments are that the procedures are too long: the procedures take 20 working days unless excavation is needed. They say that if something is found, the construction will be stopped, and certainly if it is important this will be the procedure; if it is not, the case is

a rescue procedure and the construction will be partially stopped during the excavations, and after that it will continue. The solution to this would be to change the order of the procedures and place it at the beginning of the projects, not at the end as they are currently, thus avoiding monetary losses to the construction industry and cultural losses for the archeology of the country. Nonetheless, the biggest problem that the Direction of Archaeology faces is that the State that has become its own enemy, as it requires both a steady relationship with the construction sector and the tourism sector that generates the economy of the country, and is not taking a vested interest in caring for cultural heritage.

An example of this situation occurred around 2010-2013, when the Department of Archaeology tried to stop the destruction of El Cambio site, but the Director of Patrimony gave legal permissions to Sol Bang to construct a new settlement. After years of litigation, jail sentences were established for Sol Bang and the Director of Patrimony. Another example occurred in 2016, with the destruction of the historical center of San Salvador by mayor Nayib Bukele, who used the media to manipulate the resolution that he received from SECULTURA (Secretaría de Cultura de la Presidencia de El Salvador). A third example is the Santa Rosa settlement that destroyed a site in Santa Tecla; in this particular case SECULTURA has not been able to find out who was responsible for it or even stop all the destruction. Yet another example for 2017-2018 is the site of Tacuscalco in Nahulingo-Sonsonate, where

Phoenix S.A. de C.V. has destroyed part of the site for the construction of houses and a purifying water plant without any state permits. The construction owners did not ask for permissions to the Ministry of Environment or the Ministry of Culture and they are also manipulating the Legislative Assembly of El Salvador to continue working on the project claiming that there was not any destruction of the site, that they are losing a lot of money for the investment and the workers are losing payments because of the stopped construction. They don't even care what the community thinks about the destruction they have made.

CONCLUSIONS

The dichotomy of the rescue and destruction of culture and archaeological sites is not new; it has been viewed as important or dismissed depending on the vision of the state and what is promoted at that time. What could help to minimize this adverse attitude? Many things: education, publication of the destruction of sites in the media to create social awareness, promotion of local and national economic benefits, and continuing to negotiate or impose penalties.

The faculties are graduating personnel to work on construction projects, but not for academic work which is just as important and necessary. Qualified personnel is largely being limited by this type of work. The important part of this is to create conscience between the guilds of archaeologists, to prevent the construction sector from abusing regulations and breaching ethical boundaries.

Also of importance is to educate the general public and the construction sector to not see archaeology as a menace, and to embrace their cultural heritage as something equally important to economic development.

REFERENCES CITED

Adams, Richard N.

1957 *Cultural Surveys of Panama-Nicaragua-Guatemala-El Salvador-Honduras*. Scientific Publications n° 33 Pan American Sanitary Bureau, EEUU.

Andrews V., E. Willys

1986 *La Arqueología de Quelepa, El Salvador*. (Segunda edición) El Salvador: Dirección de Publicaciones e Impresos.

Asamblea Legislativa

2006 *Ley Especial de protección al Patrimonio Cultural de El Salvador*. Impreso en la Dirección de Publicaciones e Impresos, CONCULTURA, San Salvador

Barberena, Santiago I.

1914 *Historia de El Salvador, época antigua y de la conquista. Tomo I*. Imprenta Nacional, San Salvador.

Castellón Huerta, Blas R.

1992 *Bibliografía de arquitectura prehispánica 2*. Cuadernos de Arquitectura Mesoamericana N° 22, Universidad Nacional Autónoma de México.

Card, Jeb J.

2014 *Notas preliminares sobre una botella jeroglífica en el Museo Nacional de Antropología*. Informe interno del Museo Nacional de Antropología "Dr. David J. Guzmán"

- Cobos, Rafael
1995 *Síntesis de la Arqueología de El Salvador*. Colección Antropología e Historia n° 21, Dirección de Publicaciones e Impresos, Patronato Pro-Patrimonio Cultural, San Salvador. Primera Reimpresión.
- Demarest, Arthur
1989 *Informe Final Proyecto El Carmen, El Salvador*. Universidad de Vanderbilt. Informe en la Dirección de Arqueología.
- Departamento de Arqueología
2015 *Fichas de Registro Arqueológico*. Departamento de Arqueología de la Secretaría de Cultura de la Presidencia de El Salvador.
- Dull, Robert; John Southon & Payson Sheets
2001 *Volcanism, Ecology and Culture: A Reassessment of the Volcan Ilopango TBJ Eruption in the Southern Maya Realm*. Latin American Antiquity 12: 25-44
- Dull, Robert.; John Southon, Steffen Kutterolf, Armin Freundt, David Wahl & Payson Sheets
2010 *Did the Ilopango TBJ Eruption Cause the AD 536 event?* Poster version.
- Erquicia, J. Heriberto
2008 *Prácticas funerarias y análisis biológico de los individuos localizados en la zona de enterramiento del sitio arqueológico Tacuscalco-Los Cerritos, Sonsonate, El Salvador*. En XXI Simposio de Investigaciones Arqueológicas en Guatemala, 2007 (editado por J. P. Laporte, B. Arroyo y H. (Mejía), pp.1282-1304. Museo Nacional de Arqueología y Etnología, Guatemala (digital version)
- Erquicia, J. Heriberto; Walter Hernández & Shintaro Suzuki
2013 *Investigación arqueológica en el estudio del vulcanismo monogenético de la caldera de Ilopango: aportes al análisis de la amenaza volcánica en el noreste del área metropolitana de san salvador y alrededores del lago de Ilopango*. Published by UTEC-IPGH-MARN-UNAM
- Escamilla, José L. & Carlos Melgar
2013 *Alejandro Dagoberto Marroquín, en la ruta del proyecto Facultad de Ciencias y Humanidades: Remembranzas a su legado a tres voces*. Revista Humanidades, V Época- N°1, mayo-agosto.
- Escamilla, Marlon & William Fowler
2011 *Práctica y Conducta de la Arqueología Salvadoreña durante los últimos 25 Años: El inicio de una arqueología nacional*. Documento presentado en Simposio de Investigaciones Arqueológicas en Guatemala.
- Facultad de Ciencias y Humanidades, Universidad de El Salvador.
2011 *Revista Búho Dilecto*. III Época, año 4, número 26, julio-agosto.
- 2013 *Revista La Universidad*. Nueva Época, número 20, enero-marzo. Editorial Universitaria.
- Habel, Simeon
1878 *The Sculptures of Santa Lucia Cosumalwhuapa in Guatemala: with an account of travels in Central America and on the Western coast of South America*. Smithsonian Contributions to Knowledge. Washington City, D.C. Washington City, D.C.

Hartman, Carl V.

2001 *Reconocimiento Etnográfico de los Aztecas de El Salvador*. MESOAMÉRICA 41, pp.146-191.

Herrera, Rocío; Wataru Morita & Akira Ichikawa

2015 *Patrón de Enterramiento en el Sitio Arqueológico Nueva Esperanza, Bajo Lempa, El Salvador: Panorama Anterior a La Catastrófica Erupción del Volcán Ilopango*. Memoria del XXIV Encuentro Internacional "Los Investigadores de la cultura Maya" 2015.

Herrera, Rocío

2017 *Estudio sobre Paleopatologías en restos óseos prehispánicos encontrados en El Salvador, C.A. Temporada 2015*. Informe en Departamento de Arqueología. (En proceso de publicación) *Osteobiografías: Paleopatologías Prehispánicas En El Salvador*. Revistas Anales de El Salvador.

Ichikawa, Akira

2011 *Estudio Arqueológico de Nueva Esperanza, Bajo Lempa, Usulután*. Dirección de Publicaciones e Imprenta, Secretaría de Cultura de la Presidencia, El Salvador.

Kitamura, Shigeru

2010 *Two AMS Radiocarbon dates for the TBJ tephra from Ilopango Caldera, El Salvador, Central America*. Bulletin of Faculty of Social Work, Hirosaki Gakuin University, Vol. 10.

Lara Martínez, Carlos B.

2011 *El Desarrollo de la Antropología Sociocultural en El Salvador*. ALTERIDADES vol. 21, núm. 41, Págs. 69-78, Universidad Autónoma Metropolitana Unidad Iztapalapa, Distrito Federal, México.

Lara Martínez, Rafael

2014 *Mitos en la lengua materna de los pipiles de Izalco en El Salvador*. Traductor e Intérprete de Leonhard Schultze Jena. Editorial Universidad Don Bosco.

Marroquín, A. Dagoberto

1975 *El Problema Indígena en El Salvador*. AMERICA INDIGENA. Órgano trimestral del instituto indigenista interamericano, México, Vol. XXXV N.º 4

Montessus De Ballore, Ferdinand

1884 *Temblores y Erupciones Volcánicas en Centro-América*. Imprenta del Doctor Francisco Sageini, calle la Aurora. Tomado en julio de 2017 de www.redicces.org.sv

1891 *Le Salvador Précolombien. Études Archéologiques*. Tomado en julio de 2017 de www.scribd.com

Museo Nacional de Antropología de El Salvador

1926 *Revista de Etnología, Arqueología y Lingüística*. Tomo 1, Nros. 3 y 4
1950 *Anales Del Museo Nacional "David J. Guzmán"*. Tomo 1, N° 1, 2, 3 y 4.

Ohi, Kuniaki

2000 Capítulo 4: Los restos óseos procedentes del área de Casa Blanca del Sitio Arqueológico Chalchuapa, de Zaid Lagunas Rodríguez. En el libro de *Chalchuapa: Memoria final de las investigaciones interdisciplinarias de El Salvador*. Pp. 85-111, Instituto de Estudios Latinoamericanos de Kyoto y Museo Universitario de las Culturas y Universidad de Estudios Extranjeros de Kyoto.

Peccorini, Atilio

1913 *Algunos datos sobre arqueología de la República del Salvador*. Journal de la Société des Américanistes. Tome 10 n°1. pp. 173-180; documento generado el 14 de junio de 2016.

Ramírez C., Ana Lillian & America Rodríguez H.

1993 *Algunas reflexiones sobre el desarrollo de la antropología en El Salvador*. Cuadernos de Antropología N° 9: 37-47. enero / junio.

Sharer, Robert J.

1978 *The Prehistory of Chalchuapa, El Salvador. Vol. I, II and III*. University of Pennsylvania Press.

Sheets, Payson D. & Karen A. Kievit

1992 *Investigations at the Ceren Site, El Salvador: A preliminary report*. Informe en Departamento de Arqueología, SECULTURA.

Squier, Ephrain G.

2004 *Apuntamientos sobre Centroamérica: Honduras y El Salvador. (Traducción Leon Alvarado) Su geografía, topografía, clima, población, riqueza, producciones, etc. y el propuesto ferrocarril de Honduras*. Fundación Vida, Colombia.

Termer, Franz

S.F. *Carlos Sapper, Explorador de Centro América (1866-1945)*. Digitalized by Fundación Enrique Bolaños.



PART III

LOOKING TO THE PAST: REFLECTIONS ON CHANGING PERSPECTIVES IN ARCHAEOLOGY

ANCESTRAL HUMAN REMAINS IN LEGACY COLLECTIONS: RESEARCH OPPORTUNITIES AND ETHICAL RESPONSIBILITY

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ABSTRACT

Excavated ancestral human remains have not always been managed properly. This has led to collections of human remains being “discovered” in storage areas of universities and consulting companies, often accompanied by poor or non-existent documentation. Such “legacy” collections can be problematic for institutions, who fear tensions with descendant communities and potential public backlash. We seek to acknowledge the existence of legacy collections, and the opportunities for collaborative research which might come from their proper management. We explore the ethical responsibilities of researchers both to the advancement of scientific knowledge,

to the remains themselves, and to descendant communities. We highlight the importance of both building strong relationships and planning for the continued respectful care and potential study of ancestral remains in the early stages of the research process.

INTRODUCTION

In the late 19th and early 20th centuries, physical anthropologists were particularly focused on trying to document and explain human variation through an evolutionary lens. Indigenous skeletal remains and associated funerary objects were thus collected for reference and museum collections without concern for how living descendant communities might be impacted. International networks of collectors

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developed, trading in Indigenous human remains and cultural materials (Fforde 2004). Collections practices were highly unethical, deeply rooted in colonial practices and racial discourses, and, by today's standards, outright criminal. Early physical anthropologists felt entitled to collect remains whenever and wherever they could—regardless of the wishes of descendant and living communities. Anthropological analyses supported scientific racism (Redman 2016), which identified Indigenous peoples as racially inferior to white Europeans and was used to justify the colonial project in settler countries (Trigger 2006).

While the focus of anthropological investigations shifted over time from justifying colonial superiority to documenting evolution and humanity's past, Indigenous remains continued to be central to these goals and thus continued to be collected (Thornton 2004). At the time, remains were held “in-trust” on behalf of communities, implying that anthropologists were better positioned to care for them—and to make decisions regarding their study—than Indigenous communities (Thornton 2004). In addition, most research that has involved the study of ancestors has benefitted archaeologists and researchers, not living descendant communities. This history of scientific colonialism (Hollowell and Nicholas 2009; Zimmerman 2001) has left an enduring legacy of distrust and suspicion towards museums and anthropologists (Carlson 2005; Simpson 2008), one which we still grapple with as a discipline today.

Repatriation Movements

In the 1980s, Indigenous human rights activism, alongside developing postcolonial critiques, ensured that demands for the return of ancestral remains and cultural materials were highlighted among ongoing struggles around treaty violations, land claims, community rights, and increased Indigenous involvement in research (Fforde 2004; Fine-Dare 2002; Ramos 2008). Intense, global discussions over the past several decades have surrounded the reburial of ancestors, the future of scientific research, the rights of descendant communities, and in general, the idea of “who owns the past?” (Hubert 1992; Fforde 2004; Ubelaker and Grant 1989; Zimmerman 2005). From these efforts, repatriation is now regulated through international ethical frameworks like the United Nations’ Declaration on the Rights of Indigenous Peoples (Article 12); and by national policy and legislation, like the Native American Graves Protection and Repatriation Act (NAGPRA) in the United States. In Canada, a case-specific, *responsive* approach to repatriation has been adopted by most museums and cultural institutions. Requests here are largely handled in response to claims made by Indigenous communities, institutions develop their own policies, and funding is incredibly limited (Young 2010, 2014).

In the early days of the repatriation movement, biological anthropologists had mixed responses to the idea of returning ancestral remains, and a sense of scientific duty towards preserving the past continues to

leave many uneasy. Some have even argued that repatriation, and particularly NAGPRA, has harmed and will continue to harm bioarchaeological research in North America (Jenkins 2016; Weiss 2008). Others, however, have noted that the requirements of NAGPRA have, in fact, stimulated osteological research, with repatriation processes mandating the inventory of neglected human remains and standardizing the collection of data for use in the future (Kakaliouras 2014; Ousley et al. 2005; Rose et al. 1996).

The reality of repatriation is that it is forever: once remains are returned, they will no longer be available for analysis. As archaeologists, we are trained to be stewards, to care for excavated materials so that they can be studied by future generations. However, continuing to store ancestral remains in institutions away from their communities, merely for the possibility that new methods or technologies will yield important information from them, is in many ways a continuation of scientific colonialism. Given the history of these tense debates around repatriation and research, and because repatriation can involve high profile and complicated negotiations, biological anthropologists tend to see an opposition between the interests of Indigenous peoples and those of science. Because of this, or fearing tension, many researchers may avoid presenting the option of anthropological analyses and their potential contributions during repatriation negotiations with descendant communities.

Shifting Interests and Relationships

However, relationships between anthropologists and descendant communities have begun to change (Watkins 2017). Postcolonial critiques have criticized anthropological and archaeological research for its often colonially skewed and problematic representation and appropriation of Indigenous knowledge (Liebmann and Rizvi 2008). Efforts to decolonize theory and practice have included the incorporation of collaborative, community-based and Indigenous research methodologies that conduct research for, with, and by Indigenous communities into project designs (Nicholas and Andrews 1997). These have encouraged the participation and active inclusion of Indigenous peoples in the design of research initiatives (Atalay 2012), allowing for the development of new relationships and multicultural exchanges. For some communities, their meaningful involvement in archaeological research has facilitated a renewed connection with their own history—a connection broken by centuries of colonialism.

In Canada, physical anthropologists have developed working relationships with communities for many years now (Buikstra 2006; Cybulski 1976; Schaepe et al. 2016). An early example can be found in Jerome Cybulski's work in British Columbia during the 1970s. He noted during a talk in 1976 that "...physical anthropology proved a significant stimulus to cultural recovery programs initiated by the people themselves." (Cybulski 1976:181). His work

demonstrates the potential early on for mutually beneficial cooperation between physical anthropologists and descendant communities in the reconstruction of native cultural and biological histories.

Many collaborative research projects involving ancestral remains have developed in Canada and elsewhere since. For example, the Journey Home Project in British Columbia (Schaepe et al. 2016) offers an example of a community-directed research relationship. To ensure the proper and respectful treatment and repatriation of their ancestors, members of the Stó:lō Nation worked with the Laboratory of Archaeology at the University of British Columbia's Museum of Anthropology to develop "practical guidelines and protocols serving to identify and navigate points of common interest and points of contention between scientific and cultural communities in bioarchaeological analysis and the production of intangible knowledge derived from the analysis of ancestral remains." (Schaepe et al. 2016:3). The stories of Owl Inini, Carver Inini, and Dancer Ikwe in Manitoba (Syms 2014) offer another example, where the Sagkeeng First Nation, the Manitoba Museum, and provincial heritage regulatory authorities worked collaboratively using both anthropological analyses and traditional knowledge to learn from ancestors whose skeletal remains were recovered in southeast Manitoba. These projects and many others show the interest of descendant communities in bioanthropological analyses and their desire to use results to learn from ancestral

remains uncovered during development initiatives or archaeological investigations. Projects like these also offer examples for other researchers to follow when seeking to develop a collaborative working relationship with Indigenous descendant communities.

Legacy Collections and Ancestral Human Remains

The Archaeological Collections Consortium describes *orphaned* collections as "a group of objects and/or associated records of unclear ownership that have been abandoned in a repository, museum, or another facility – such as a laboratory in a CRM firm." (2016:43). Legacy collections are similarly established; however, ownership or title to these may be more clearly demonstrated (MacFarland and Vokes 2016). Generally excavated several decades ago, their jurisdiction may be known but still unclear, as many have been inherited by institutions or firms when the people who originally excavated them leave archaeology, retire or die; when archaeology departments are dissolved; or when firms combine. Collections may also be donated by private citizens who collect archaeological materials on their own properties or find them in estates of relatives who have passed away. In many cases, these collections are scattered and incomplete. They often contain materials that may be uncatalogued, with minimal (if any) suitable documentation and do not meet contemporary curatorial standards (MacFarland and Vokes 2016).

With the rise of the heritage resource management industry and the inevitable academic retirement cycle, these collections are increasingly posing problems for departments and institutions uncovering them. Archaeological repositories are faced with the daunting task of bringing collections up to contemporary curatorial standards, often working with minimal adequate documentation and requiring a significant investment of time, labour and funds to “rehabilitate” them to today’s standards of practice (Childs and Benden 2017; Lyons and Vokes 2010). Inadequate funding and resources available to support collection rehabilitation and pending repatriation initiatives are also complicating factors when dealing with legacy collections. Thus, their sustainability, and that of archaeological repositories in general has become one of the most pressing issues facing the discipline today (Childs and Benden 2017; Childs et al. 2010).

In this paper, we use the term “legacy” to problematize the existence of these collections as examples of the colonial past of our discipline and to promote the potential they offer to build a better future for it. We specifically include excavated human skeletal remains in our definition, where “legacy collections” encompasses those archaeological materials and ancestors, along with their associated documentation, that was excavated and collected during past fieldwork or collecting activities and has varying degrees of known provenience. We realize that not all legacy collections may

contain ancestors, and, though it is beyond this paper to adequately address, generally advocate for those collections to be similarly addressed by researchers and cultural institutions. Because of their ubiquitous presence across our discipline, we feel that so-called “legacy collections” simultaneously represent both the disciplinary problems of the past and an opportunity to build new, mutually beneficial relationships with communities.

Legacy Collections: Problem or Opportunity?

The disorganized, under-documented nature of legacy collections can lead to several issues for both archaeological and bioarchaeological research and the repatriation process. For example, collections may be scattered between different buildings and even institutions, or contents may be mixed with materials from other archaeological sites, resulting in a logistical nightmare when seeking to research or return materials. Missing provenience information creates difficulties when establishing cultural affiliation – a feature required by many repatriation policies as proof to validate descendant community requests. Not having provenience information also limits the feasibility of studies of mortuary practices. Poor storage conditions can lead to a deterioration of both storage containers and their contents. These issues can hinder and further delay the already time-consuming process of repatriation and create a unique set of challenges when seeking to rehouse or

rehabilitate a legacy collection (Knoll et al. 2016; Macfarland and Vokes 2016; Voss and Kane 2012). Thus, researchers or institutions, who may already be expecting a negative reaction from communities or who simply do not know how to proceed in addressing them, may thus be reluctant to even acknowledge that they have uncovered these legacy collections of human remains. However, the potential opportunities for research and collaboration with descendant communities should offset the perceived difficulty of our duty to deal with these collections ethically.

Even with these problems, ancestral remains in legacy collections offer an opportunity, for both descendant communities and researchers, to learn about past lives. Various completely non-destructive skeletal and dental analyses can provide information on the health of ancestors, dynamics of their communities, or activity patterns. Osteobiographies can provide specific information about each ancestor, such as their age, their sex, and some details about how they moved around their landscapes. These can be especially interesting in the case of particularly valued individuals, such as those with rich burials. Molecular analyses have also become more popular in recent years and some communities have begun to use the results from these analyses to support land claims cases at the federal level. Isotopic information can provide communities with an idea of ancient diets and DNA analyses of ancestral remains can help to trace the movement of people in the past and

potentially link living communities with ancient individuals. Bioanthropological research involving ancestors can thus offer direct benefits to descendant communities and, in doing so, can perhaps return a sense of dignity to ancestors who have been so long removed from their homes.

Building Relationships from Legacy Collections

While legacy collections containing ancestral remains represent a problematic past in many ways, we feel they also offer an opportunity for researchers to build productive, respectful, and mutually beneficial relationships with descendant communities. Building these collaborative research relationships is of direct and explicit interest to biological anthropologists, particularly those wary of losing data in the repatriation process. So, how can legacy collections help us develop a productive relationship with descendant communities?

Acknowledging their existence is the first step. The (re)discovery of these collections offers a critical opportunity to start a conversation with descendant communities. Ethical concerns around the holding of ancestral human remains mandate consultation with descendant communities upon the discovery of legacy collections. Because of delicate collection contexts, we must be the ones to proactively contact communities to let them know that we have these ancestors and to acknowledge how they came to be in our possession. We cannot put the onus on descendant communities to

initiate inquiries to institutions regarding the possible presence of ancestral remains. The institution's choice at the moment of (re)discovery can set the tone for the repatriation negotiation to come. For those unsure of how to start conversations with descendant communities, we suggest that this moment can facilitate the acknowledgement of past wrongdoing and communication of future goodwill.

Researchers must also be willing to put communities in the driver's seat (e.g., Schaepe et al. 2016), and enable them to direct any research to be undertaken on their ancestors. Then, sensitively and respectfully offering to discuss the research possibilities—and realities—with communities that you are working with can be the next step. This may also involve the development of culturally sensitive protocols for care, research, or long-term curation of the ancestors while they are with you. It is also important to realize and accept that communities may want their ancestors returned. The pain of having them removed, often without consent, for so long is very real for many descendants. Respecting the rights of communities to determine whether their ancestors are reburied immediately, or if research is undertaken, is essential and can have a lasting impact on the possibility of future research discussions.

Finally, these initial conversations with communities set the tone for relationship-building moving forward; thus it is also important to consider the language you use. Referring to *people* and *ancestors*, not

specimens or *collections* and talking of *care*, not *management*, can convey respect for descendant communities. Shifting towards a learning perspective, rather than a defensive position, can convey your willingness to incorporate the communities' wishes into planning. These changes can strengthen meaningful conversations with descendant communities around research involving their ancestors.

Communication is key to moving from a one-way relationship with descendant communities, to a continuing one that involves collaborative research, and is a cornerstone of productive research relationships. Many communities identify true, meaningful consultation as in-person conversations on Indigenous territories between decision makers and community leaders, not a "one-size-fits-all" exercise that can be solved by simply sending a letter (Advisory Council on Historic Preservation 2017:4). Consultation involves learning on both sides of the table and likely adjustments to initial plans before a final decision is made. Being prepared for the reality of consultation is essential to building respectful, mutually beneficial relationships.

A successful relationship is also self-reinforcing. Positive interactions between researchers and communities build trust. As trust is developed, descendant communities may feel more comfortable discussing research drawing on ancestral human remains or even alternatives to reburial. We feel that by acknowledging the problematic history of archaeology and proactively approaching

descendent communities about legacy collections that contain ancestral remains, researchers and institutions can start conversations and begin to build positive relationships.

CONCLUSIONS

Repatriation has become an integral part of decolonizing archaeological and museum practice as part of the process of reconciliation. Collaborative research relationships that have developed to learn from ancestors before they are reburied can be understood as another direct example of reconciliation – working to build a bridge between two seemingly opposing perspectives and worldviews and meeting in the middle to learn from one another. Community engagement and collaboration are the future of our discipline. By meaningfully working with communities to address legacy collections — and confronting our discipline’s colonial and racist past — we can open those conversations and start to build a more collaborative future.

Thus, we call on biological anthropologists and archaeologists to learn from collaborative projects and researchers who have worked to develop meaningful and respectful relationships that benefit all parties. Clean out your closets and begin these difficult conversations, for it is the only way to move forward.

REFERENCES CITED

Advisory Council on Historic Preservation
2017 “Improving Tribal Consultation in Infrastructure Projects,” A report by the Advisory Council on Historic Preservation (ACHP), # 20001–2637, May 24, 2017. Washington, DC.

Atalay, Sonya

2012 *Community-based Archaeology: Research With, By, and For Indigenous and Local Communities*. University of California Press, Berkeley.

Archaeological Collections Consortium

2016 Building Common Ground on Collections: An Initial Glossary of Collections-related Terminology. *SAA Archaeological Record* 16(1):41–43.

Carlson, Catherine C.

2005 Letters from the Field: Reflections on the Nineteenth-Century Archaeology of Harlan L. Smith in the Southern Interior of British Columbia, Canada. In *Indigenous Archaeologies: Decolonising Theory and Practice*, edited by Claire Smith and H. Martin Wobst, pp. 125–158. Routledge, New York.

Childs, S. Terry

1995 Curation Crisis—What’s Being Done? *Federal Archeology* 7(4):11–15.

Childs, S. Terry, Karolyn Kinsey, and Seth Kagan

- hr/>
- 2010 Repository Fees for Archaeological Collections: Trends and Issues over a Decade of Study. *Heritage Management* 3:189–212.
- Cole, Douglas
1995 *Captured Heritage: The Scramble for Northwest Coast Artifacts*. UBC Press, Vancouver.
- Cybulski, Jerome
1976 Scientific Aspects of Archaeology in Canada: A Physical Anthropologist's View. *New Perspectives in Canadian Archaeology Proceedings*. Royal Society of Canada, Ottawa.
- Fforde, Cressida
2004 *Collecting the Dead: Archaeology and the Reburial Issue*. London: Duckworth.
- Fine-Dare, Kathleen
2002 *Grave Injustice: The American Indian Repatriation Movement and NAGPRA*. University of Nebraska Press, Lincoln.
- Hubert, Jane
1992 Dry Bones or Living Ancestors? Conflicting Perceptions of Life, Death and the Universe. *International Journal of Cultural Property* 1 105-127.
- Jenkins, Tiffany
2016 *'Keeping Their Marbles: How the Treasures of the Past Ended Up in Museums -- And Why They Should Stay There*. Oxford University Press, Oxford.
- Kakaliouras, Ann M.
2014 When Remains are "Lost": Thoughts on Collections, Repatriation, and Research in American Physical Anthropology. *Curator: The Museum Journal* 57(2): 213–223.
- Knoll, Michele, Jenna Domeischel, Heather Thakar, Janaki Krishna, and Bruce Huckell
2016 Archaeologists Anonymous: The Twelve-Step Program to Getting Those Old Collections Curated. *SAA Archaeological Record* 16(3):25–32.
- Lyons, Patrick and Arthur W. Vokes
2010 The Role of Fee Structures in Repository Sustainability. *Heritage Management* 3:213-232.
- Kathryn MacFarland and Arthur W. Vokes
2016 Dusting Off the Data: Curating and Rehabilitating Archaeological Legacy and Orphaned Collections. *Advances in Archaeological Practice* 4(2):161–175.
- Liebmann and Rizvi
2008 *Archaeology and the Postcolonial Critique*. Altamira Press, Lanham, MD.
- McNiven, Ian J. and Lynette Russell
2005 *Appropriated Pasts: Indigenous Peoples and the Colonial Culture of Archaeology*. AltaMira Press, Lanham, Maryland.

-
- Nicholas, George P. (editor)
 2010 *Being and Becoming Indigenous Archaeologists*. Left Coast Press, Walnut Creek, California.
- Nicholas, George P., and Thomas D. Andrews
 1997 Indigenous Archaeology in the Postmodern World. In *At a Crossroads: Archaeology and First Peoples in Canada*, edited by George P. Nicholas and Thomas D. Andrews, pp. 1–18. Archaeology Press, Simon Fraser University, Burnaby, BC.
- Nicholas, George P., and Julie Hollowell
 2007 Ethical Challenges to a Postcolonial Archaeology: The Legacy of Scientific Colonialism. In *Archaeology and Capitalism: From Ethics to Politics*, edited by Yannis Hamilakis and Philip Duke, pp. 59–82. Left Coast Press, Walnut Creek, CA.
- Ousley, Stephen D., William T. Billeck, and Eric Hollinger
 2005 Federal Repatriation Legislation and the Role of Physical Anthropology in Repatriation. *Yearbook of Physical Anthropology* 48: 2–32.
- Peers, Laura
 2010 Repatriation - A Gain for Science? *Anthropology News* 20(6):3–4.
- Ramos, Howard
 2008 Aboriginal Protest. In *Social Movements*, edited by Suzanne Staggenborg, pp. 55–70. Oxford University Press.
- Redman, Samuel J.
 2016 Bone Rooms: From Scientific Racism to Human Prehistory in Museums. Harvard University Press, Cambridge, Massachusetts.
- Rose Jeremy C., Thomas J. Green, and Victoria D. Green
 1996 NAGPRA is Forever: Osteology and the Repatriation of Human Remains. *Annual Review of Anthropology* 25:81–103.
- Schaepe, David M., Susan Rowley, Stó:lō House of Respect Committee Members, Darlene Weston, and Mike Richards
 2016 *The Journey Home – Guiding Intangible Knowledge Production in the Analysis of Ancestral Human Remains*. IPinCH Case Study Report. Copies available online from the IPinCH project, Simon Fraser University.
- Simpson, Moira G.
 2008 Indigenous Heritage and Repatriation – a Stimulus for Cultural Renewal. In *Utimut: Past Heritage – Future Partnerships, Discussions on Repatriation in the 21st Century*, edited by Mille Gabriel and Jens Dahl, pp. 64–77. Eks-Skolens Trykkeri, Copenhagen.

- Syms, E. Leigh
2014 *Stories of the Old Ones from Lee River, Southeastern Manitoba: The Owl Inini, Carver Inini and Dancer Ikwe*. The Manitoba Museum, Winnipeg.
- Thornton, Russell
2004 Repatriation as Healing the Wounds of the Trauma of History: Cases of Native Americans in the United States of America. In *The Dead and Their Possessions: Repatriation in Principle, Policy and Practice*, edited by Cressida FForde, Jane Hubert, and Paul Turnbull, pp. 17-24, One World Archaeology, New York City, New York.
- Trigger, Bruce
2006 *A History of Archaeological Thought*. 2nd ed. Cambridge University Press, Cambridge.
- Ubelaker, Douglas H., and Lauryn Guttenplan Grant
1989 Human Skeletal Remains: Preservation or Reburial? *Yearbook of Physical Anthropology* 32:249–287.
- Voss, Barbara and Megan S. Kane
2012 Re-establishing Context for Orphaned Collections. *Collections. A Journal for Museum and Archives Professionals* 8(2):87-112.
- Watkins, Joe
2017 Research, Representation, Redemption, and Repatriation: Archaeology and Community Relationships in 21st century America. In *The Routledge Companion to Contemporary Anthropology*, edited by Simon Coleman, Susan B. Hyatt, Ann Kingsolver, pp. 264–282. Routledge, London.
- Weiss, Elizabeth
2008 *Reburying the Past: The Effects of Repatriation and Reburial on Scientific Inquiry*. Nova Publishers, New York City, New York.
- Young, Janet
2010 Responsive Repatriation: Human Remains Management at a Canadian National Museum. *Anthropology News*, March 2010.
- 2016 Collection, Curation, Repatriation: Exploring the Concept of Museum Skeletal Populations as Missing Persons. In *Missing Persons: Multidisciplinary Perspectives on the Disappeared*, edited by Derek Congram, pp. 119–133. Canadian Scholar’s Press, Toronto.
- Zimmerman, Larry J.
2005 Public Heritage, A Desire for A “White” History for America, and Some Impacts of The Kennewick Man/ Ancient One Decision. *International Journal of Cultural Property* 12(2): 265-274.

-
- 2001 Usurping Native American Voice.
In *The Future of the Past: Native Americans, Archaeologists, and Repatriation*, edited by Tamara L. Bray, pp. 169-184. Garland Press, New York.

RECONCILING HERITAGE: DOING ARCHAEOLOGY AT THE INTERSECTION OF INDIGENOUS HERITAGE, INTELLECTUAL PROPERTY, AND HUMAN RIGHTS

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We live in a time of transition in Archaeology. In recent decades there have been huge technological advancements that provide startling new detailed insights into the lives of ancient peoples. The theory wars are (mostly) behind us. And there is now greater participation of descendant communities in discovering and caring for their own past.

But this coming of age has also brought new responsibilities and big adult concerns about the political, ethical, economic, and social dimensions of archaeological research and heritage management, including: a diverse array of attitudes, some dismissive, about the value of heritage; questions about the legitimacy of traditional knowledge and Indigenous-led research; the longstanding tension between universal vs. culture-based heritage values; the ability of provincial, territorial, state, and federal heritage policies and agencies to fulfill their mandate; and a growing

recognition that we are failing to train the type of archaeologists needed today.

Reflected in this list are disconnects between science as a way of knowing and humanities as a way of valuing; between the interests of the state and those of the people, especially in multi-cultural societies; and between the heritage haves and have-nots regarding benefits from the work that we do as archaeologists.

In the midst of such discourse, Indigenous peoples worldwide continue to press for meaningful engagement with those controlling their heritage. Recognizing, respecting and protecting indigenous heritage is thus bound up with challenging questions about sovereignty and jurisdiction, about epistemology, and about social justice and human rights, including protection of ancestral objects, places, and knowledge (e.g., Anderson and Geismar 2017; Hillerdal et al. 2017; Samuels and Rico 2015; also Kapchan 2014; Silverman and Ruggles

Nicholas, George. 2019. "Reconciling Heritage: Doing Archaeology at the Intersection of Indigenous Heritage, Intellectual Property, and Human Rights". In *Chacmool at 50: The Past, Present, and Future of Archaeology.. Proceedings of the 50th Annual Chacmool Archaeology Conference*, edited by Kelsey Pennanen and Susanne Goosney pp. 95-111. Chacmool Archaeology Association, University of Calgary, Calgary, Alberta, CA.

2007).

While heritage is important to all peoples, and everyone's cultural legacy is worthy of respect and protection, Indigenous peoples have historically had the least control over their own. Their history, identity, worldview, and health are intrinsically tied to heritage, both tangible and intangible, in ways significantly different from Western society's (Bell and Napoleon 2008). In the post-colonial world, the challenges associated with state-controlled heritage legislation are acute and often a source of conflict, with substantial social, political, and economic consequences. The limited ability of Indigenous peoples to make decisions on their own heritage constitutes an affront to human rights, while the continued destruction of ancient sites, burial grounds, and sacred places can be construed as a form of violence (Nicholas 2017a).

Recent developments in Canadian constitutional and international human rights law provide an opportunity to reassess and reformulate ineffective heritage laws and policies. The shift in thinking about heritage from property to human rights in international law is supported by Canada's Truth and Reconciliation Commission's findings and the UN's Declaration on the Rights of Indigenous Peoples (UNDRIP), which includes the right to self-determination. Scholars in many sectors are now starting to explore this at the same time

as governments are being challenged for their ineffective and inequitable heritage protection policies.

But it is another matter to get these voluntary recommendations put into practice. Making the transition from theory to practice to policy requires significant effort and understanding, and systemic level changes. This will require transformative change in its relationship with Indigenous peoples.¹ There is also considerable uncertainty about what acceptance of UNDRIP really means and what are the steps for implementation, especially for Canada, the United States, and New Zealand, the three countries that initially voted against it. Indeed, only months after Canada officially removed its objector status to the Declaration, Justice Minister Jody Wilson-Raybould called its adaptation into Canadian law "unworkable" in a statement to the Assembly of First Nations.² In the United States, there is much pessimism about what will happen under the Trump administration.³

Today I take a pragmatic approach to discussing indigenous heritage, which constitutes the focus of most of the archaeology we do in North America. If descendant groups are denied direct and meaningful ways of engaging in decision making concerning their heritage, then heritage management policies are ineffective at best and harmful at worst. My position is based on three points: 1) that access to and control over one's own heritage is a basic

¹ <http://www.justice.gc.ca/eng/csj-sjc/principles-principes.html>

² <http://ipolitics.ca/2016/07/12/ottawa-wont-adopt-undrip-directly-into-canadian-law-wilson-raybould/>

³ <http://indianlaw.org/implementing-undrip/how-un-declaration-rights-indigenous-peoples-can-be-used-protect-against-trump-agenda>

human right essential to their survival; 2) that Indigenous peoples in “settler countries” have historically been separated from their heritage, experienced little benefit from heritage-related research and suffered cultural and spiritual harms and economic loss as a result; and 3) that community-based heritage initiatives are capable of challenging colonial structures in the research process without compromising the integrity of archaeology. My goal here is to discuss the need for a theoretically, ethically and politically viable approach to heritage research with, for and by descendant communities.

What follows is a discussion of heritage values and human rights relating to those three premises. I begin by discussing the nature of heritage, and particularly indigenous heritage. I then shift to community-based initiatives that challenge existing power structures in archaeology and heritage research: first through Indigenous archaeology and then through the IPinCH Project. I conclude with an example of an intervention made to encourage changing heritage policy to illustrate the relevance of and urgency in addressing issues and concerns relating to colliding cultural values, inequities in heritage preservation, and the responsibilities that we have, individually and collectively.

A Loss of Innocence

For some of us here, the state of archaeology is very different from when we first began. Classification, description, and culture history remain the foundation of what we do, but since David Clarke’s and Lewis

Binford’s seminal work in the 1960s, our discipline has embarked on a far more ambitious quest to understand the processes of change and meaning of objects, and of people’s lives in the past.

Much of the archaeology I’ve done on early postglacial land use and hunter-gatherer use of wetland environments has been basic culture history coupled with a strong processual orientation (Nicholas 1988). As a newly minted Ph.D., I soon found my worldview changing after moving to British Columbia, where I would teach and do archaeology on the Kamloops Indian Reserve for 15 years (Nicholas 2012). That formative experience led me to a second avenue by which to engage with archaeological questions and heritage values. But I never expected that I would become so involved in Indigenous issues and activism.

This turn-around resonates strongly with Michael O’Brien et al.’s comment in *Archaeology as Process* (2005: 221) on David Clarke’s (1973) “Archaeology: The Loss of Innocence” article. They write:

“We didn’t get into archaeology to invent new paradigms or to write histories of the discipline, or to do “scientific” stuff... We got into it because at the time it looked like fun. And it is fun. As we mature, however, our sense of responsibility matures in step. The arrogance of youth fades, and we become self-conscious about what we’re doing and begin to see all the holes in what we think we know about the archaeological record and the past. We try to plug the holes, but realize

that our models and theories are inadequate for the job. This makes us uneasy.”

I have been uneasy for a long time. I didn’t become an archaeologist to become an activist. Nevertheless, my career and motivations have been shaped by (a) the changed (and still changing) landscape of Indigenous heritage research; (b) by an increasing array of tangible/intangible property concerns; and (c) by a desire for social justice and recognition of human rights. My experiences have instilled both an awareness of the often-skewed nature of archaeology and its privileging of Western modes of interpretation and evaluation, but also a sense of optimism that it can be made more relevant and representative while still maintaining scientific rigor.

The Nature of Indigenous Heritage

I define “Archaeology” as how we learn what happened in the past, and “Heritage” as that set of values given to or possessed by objects, places, and information derived from archaeology and other means.

From a Western perspective, heritage is largely about things (Nicholas 2014). In heritage management, the emphasis on the tangible— that is, objects, structures, and places – is understandable. These are used to identify and evaluate what is considered “significant,” based upon scientific values, albeit with some attention to historical, religious, and local values.

Although intangible heritage is acknowledged in The Hague Convention for

the Protection of Cultural Property (1954), the US National Historic Preservation Act (1966), and other laws and conventions, “artifacts” and “sites” are still the primary referent in archaeology and heritage management due to the necessity of “evidence” in scientific reasoning, and for upholding the legal obligations of heritage policies. Even with UNESCO’s Convention for the Safeguarding of Intangible Cultural Heritage (2003), there is a disconnect in Canada and elsewhere between heritage legislation and what is called for (Nicholas 2017b). The convention is also strongly oriented to contemporary heritage expressions, with no explicit reference to intangible heritage in non-modern contexts despite its mention of generational continuity. Why does privileging tangible over intangible heritage matter, especially in the realm of human rights? It matters because when Indigenous heritage is viewed and evaluated only through a Western lens, it ignores that fact that Indigenous values, beliefs, and knowledge systems are fundamentally different.

Western knowledge tends towards a reductionist, hierarchical model of description and classification, a Cartesian sense of order, and a search for universalist explanation. In sharp contrast, Indigenous epistemology is more particularistic and situational, composed of different bodies of knowledge (Bruchac 2014; Harris 2005). As Mi’kmaw scholar Stephen Augustine (1997: 1) notes: “The fact that Native science is not fragmented into specialized compartments does not mean that it is not based on rational

thinking, but on the belief that all things are connected and must be considered within the context of the interrelationship.”

From that perspective, it is the apparent indivisibility of self/family/group/relations with other-than-human beings/objects/places/and so on, coupled with responsibilities to a living world, that requires rethinking “heritage.” This can be challenging, for Indigenous worldviews may lack familiar dichotomies between the “natural” and “supernatural” realms, the sacred and the secular, or “past” and “present.” The result is a conception of—and engagement with—a world in which ancestral spirits and other-than-human beings may be part of *this* existence. In fact, a distinct concept of what we call “heritage” may even be absent in some non-Western societies because it permeates the fabric of those societies, and the very being of community members in unseen ways.

This translates into a more inclusive definition of “heritage,” which I define as “the objects, places, knowledge, customs, practices, stories, songs, and designs, passed between generations, that define or contribute to a person’s or group’s identity, history, worldview, and well-being.” Such a holistic orientation is evident in the statement of one Yukon elder. When asked to define

“heritage,” he said, “It is everything that makes us who we are” (Carcross-Tagish First Nation et al. 2016: 30).

The Consequences of Misunderstanding Indigenous Heritage

While Indigenous peoples take some assurance in the goals of Canada’s Truth and Reconciliation Commission, and in UNDRIP, there are two significant hurdles in extending these to heritage preservation: 1) a significant power imbalance in decision making, and 2) inadequate or poorly administered heritage policies.

In settler countries, decisions as to who controls or benefits from indigenous heritage are made primarily, if not exclusively by non-Indigenous people. This has improved to a degree in recent decades, with greater participation in archaeological and heritage research of descendant communities, and with consultation now a requirement of many heritage policies. Stewardship is promoted but is problematic because it stresses universal values, as with SAA Principle 1⁴, or is otherwise skewed. What has yet to occur is a needed shift from shallow and inconsistent “consultation” to “partnership” or—better yet—“consent.” Professional organizations and government agencies must also lessen their control over

⁴ Principle 1 reads in full: “The archaeological record, that is, in situ archaeological material and sites, archaeological collections, records and reports, is irreplaceable. It is the responsibility of all archaeologists to work for the long-term conservation and protection of the archaeological record by practicing and promoting stewardship of the archaeological record. Stewards are both caretakers of and advocates for the archaeological record *for the benefit of all people*; as they investigate and interpret the record, they should use the specialized knowledge they gain to promote public understanding and support for its long-term preservation.” (emphasis added) <http://www.saa.org/AbouttheSociety/PrinciplesofArchaeologicalEthics/tabid/203/Default.aspx>

other peoples' heritage. This is a substantial bottleneck to affecting change, one that I've addressed elsewhere (e.g., Nicholas 2017a; Nicholas and Hollowell 2007).

More generally, heritage policies continue to inadequately protect Indigenous interests. Among the greatest concerns that Indigenous peoples have are threats to sacred sites, cemeteries, and other places of religious or historical significance. Part of the problem is that some culturally significant places may be unfamiliar to outsiders, such as where ancestors were transformed into rock and reside there still. Likewise, for some heritage holders, physical expressions of heritage may be less important than their intangible aspects. And in some cases, "the heritage value of an object is not necessarily related to its age, rarity, or uniqueness, but determined largely on the basis of connection to community" (Carcross-Tagish First Nation et al. 2016: 68).

Legal protection of intangible heritage has had only limited success (Bell and Paterson 2009; Riley 2004). In Canada, for example, despite court rulings such as *Delgamuukw* that give weight to oral histories in land claims, the burden of proof remains on material culture. Indeed, there seems to be implicit mistrust of the value and legitimacy of non-tangible material as a reliable source of data or "truth." This double standard is evident in the use of traditional knowledge in some archaeological investigations and other studies: when it

supports or supplements scientific evidence, traditional knowledge is valued. Yet when the situation is reversed, when traditional knowledge is seen to challenge archaeological "truths," its validity is often questioned (Nicholas and Markey 2014).⁵

Such wariness of things Aboriginal carries over into the public realm in a variety of ways, including such widely read books as *Disrobing the Aboriginal Industry: The Deception Behind Indigenous Cultural Preservation* (Widdowson and Howard 2008), with its charges of public correctness and worse. And there are well-documented concerns in British Columbia and elsewhere by members of the public who hold First Nations accountable for the cost of archaeological assessments or their property, not aware that this is required by provincial heritage legislation. For example, in response to the Musqueam Nation protests to save *časna?əm*, an important heritage site, landowners Gary and Fran Hackett asked, "Why do we need permission from Musqueam for a development on our own private property with duly granted permits, unless, of course, private property in B.C. is indeed now subject to a veto by First Nations?" (*Times Colonist* 2012).

Indigenous peoples also have major concerns relating to how their cultural property is treated by others, especially when used in inappropriate, unwelcome, or harmful ways. Indeed, virtually all elements of Native American heritage, traditional knowledge,

⁵ See Nicholas (2018) for examples of public concerns about traditional knowledge comments posted in response to an on-line essay about traditional knowledge.

and cultural objects have long been viewed as part of the public domain, free for the taking and enjoyment of others (Brown 2003).

Finally, concerns loom large when academic research results reveal or threaten information that is not meant to be shared or causes cultural or spiritual harm (Anderson 1995; Cox 2018). While there is potentially much at stake for scholars regarding such topics as these—academic/scientific vs. community access and ownership of knowledge, restrictive vs. inclusive modes of resolution, the rights of knowledge holders vs. knowledge users, and legal vs. customary definitions of intellectual property, as well as the legal and ethical challenges of new technologies—what is far more pressing is alleviating the harms caused by heritage loss to people now.

For many archaeologists, one of the darkest moments in memory was the destruction of the Bamiyan Buddhas in 2001 – until that event was eclipsed by the far wider destruction of artifacts and heritage sites by ISIS in 2014.⁶ Highlighted in such instances of wanton destruction is the loss of history and scientific potential, which can be interpreted as violence against history.⁷ But what about the loss of less spectacular ancestral sites in settler counties, which occurs largely unnoticed every day? I argue that the cultural harms that occur when

indigenous heritage is lost through intentional denigration, destruction or appropriation are an even greater assault (Nicholas 2017c).

Without wanting to detract attention from more explicit forms of harm, the destruction of heritage sites continues to have significant adverse effects upon those for whom these are considered necessary not just to their historical continuity, identity, and well-being, but their survival as distinct societies. This is articulated by Hul'qumi'num elders in British Columbia, as McLay et al. (2008: 115) note:

Ruby Peters believed that the disturbance of the ancient burial ground at Somenos Creek not only offended and disrupted relations with the deceased but also resulted in physical danger for the living. Only by conversing with the deceased and using her ritual knowledge could she at least partially restore the requisite balance of relations between the world of the living and the world of the dead.

When used to describe harms resulting from disturbing heritage sites, “violence” is seldom in the vocabulary of archaeologists, except when it involves (in an abstract way) acts of violence against “their” heritage, such as the Bamiyan Buddhas. But by looking at this through the lens of indigeneity, we must acknowledge that real harm occurs to people in these situations.

⁶ <http://www.cnn.com/2015/03/09/world/iraq-isis-heritage/>. [accessed March 6, 2016]

⁷ This is well represented in media reports, such as: “ISIS Archaeological Vandalism Destroys Knowledge and Heritage” (<http://www.cbc.ca/news/technology/isis-s-archaeological-vandalism-destroys-knowledge-and-history-bob-mcdonald-1.3036473>) [accessed March 6, 2016] and “ISIS’ Archaeological Destruction Creates New Dark Age” (<https://www.bostonglobe.com/opinion/2015/03/10/isis-archaeological-destruction-creates-new-dark-age/1suc7tP8LEXO7hJoGt6u5N/story.html>) [accessed March 6, 2016]

As Deborah Kapchan (2014: 4) observes, “violence is an abrogation of human rights.”

We may also be unaware that the words we use can cause harm to descendant communities: “belongings” (vs. “artifacts”) or “person” (vs. “skeletal remains”), or labeling important heritage sites by terms (or numbers) of convenience, rather than local names (e.g., *časna?əm* vs. Marpole Midden site) (Wilson 2016; Zimmerman 2010).

Worldwide, the daily loss of heritage sites from development, erosion, and looting is staggering. The effectiveness of heritage legislation varies widely, but even when operating as intended, there are still significant issues in protecting the heritage of what are now minority groups. For example, Indigenous and Euro-American burial grounds are treated significantly differently under the law. In British Columbia, those dating pre-1846 (the date of Confederation) are legally considered an archaeological site; post- 1846, a cemetery, covered by far more effective legislation.

A Shift in Priorities and Process: Indigenous Archaeology

What’s become known as Indigenous archaeology emerged in the 1980s to challenge Western dominance of Indigenous heritage and to confront the legacy of scientific colonialism. While some individuals in Indigenous communities contend that they do not need archaeology to tell them what they already know and value about the past through other means, others are enthusiastically involved in, or are informed by, archaeology and community-

based participatory research practices.

My participation in this began almost 30 years ago. As a plenary speaker at the 1999 Chacmool conference on “Indigenous Peoples and Archaeology,” I explored the premise and promise of that still-nascent enterprise (Nicholas 2003). It has since come to comprise a broad set of ideas, methods, and strategies applied to the discovery and interpretation of the past that are informed by the values, concerns, and goals of Indigenous peoples. I have described it elsewhere as “... an expression of archaeological theory and practice in which the discipline intersects with Indigenous values, knowledge, practices, ethics, and sensibilities, and through collaborative and community-originated or -directed projects, and related critical perspectives” (Nicholas 2008). Indigenous archaeology is now a familiar presence, offering a wide array of methods, applications, and interpretations that often blend traditional archaeological methods with community-developed practices (see Bruchac et al. 2010).

I mention Indigenous archaeology today only for one specific reason— its practitioners, both native and white, have been at the forefront of working to protect Indigenous heritage and often doing a better job at it than most provincial or state authorities. Indigenous North Americans and those working with them are protecting archaeological cultural heritage through a variety of alternative methods that are attuned to local values and needs, with benefits flowing directly to the community. Additional initiatives include urging

provincial government to analyze and challenge heritage law and policy; challenging their authority over archaeological heritage in court (*Kitkatla v. British Columbia* [Canada 2002]); or even to turning to injunctions to halt development.

In British Columbia, a number of First Nations have established their own archaeological departments, such as Inlailatawah Partnership (of the Tsleil-Waututh Nation) and the Stó:lō Research and Resource Management Centre. There are also consulting companies (e.g., Klahanee Heritage Research; Kleanza Consulting Ltd; Pacific Heritage Research and Consulting) that have established long-term and effective relationships with First Nations. And, of course, there is the increase in the number of First Nation archaeologists themselves, such as Nola Markey, Karen Thomas, and Elroy White, who are working in heritage protection and management.

These individuals and organizations (and their counterparts elsewhere [e.g., Musqueam, Penobscot, Zuni]) are making a significant difference. They are pointing the way to where heritage management is going, especially in contexts where the government agencies appointed to safeguard heritage are unable or unwilling to fulfill their responsibilities.

Working Together in a Good Way: IPinCH

How can we develop more effective and more satisfying means of protecting and

respecting Indigenous heritage? What are our responsibilities, whether as academics, policy makers, or the public, at helping to ensure that everyone's rights are respected? These questions were at the core of the Intellectual Property Issues in Cultural Heritage (IPinCH) project⁸, which I directed. IPinCH was an 8-year international research collaboration exploring the diverse values that underlie attitudes, decisions and actions relating to heritage, funding research, and providing knowledge and resources to assist academic scholars, descendant communities and others in negotiating equitable terms of heritage research and policies.

IPinCH was oriented to examining intellectual property-related issues emerging within the realm of heritage, especially those affecting Indigenous peoples. These included complex and often difficult questions about who has rights to and responsibilities relating to the use of and benefits from tangible and intangible cultural heritage, including artifacts, archaeological sites, and associated traditional knowledge and values. To address these issues, IPinCH was designed to assist scholars, institutions, descendant communities, policymakers, and other stakeholders to negotiate equitable, appropriate, and successful research policies and practices involving cultural heritage, including archaeology.

The research team consists of 52 team members from 20 universities in 8 countries, including 23 archaeologists from diverse subfields, 9 cultural anthropologists, 11 legal

⁸ The IPinCH website (www.sfu.ca/ipinch) provides an array of resources and reports, including videos, podcasts, and more, designed for profession, lay, and indigenous audiences.

scholars and lawyers specializing in IP or Indigenous Rights, 4 ethicists and/or philosophers, in addition to specialists in cultural tourism, museum studies, ethnobiology, open-access to knowledge, and other fields. This group was joined by Associate members and about 40 students. Our 25 partners included such organizations as the Arctic Studies Center, Smithsonian Institute; the Center for Ainu and Indigenous Studies, Hokkaido University (Japan); the World Intellectual Property Organization; and the Ziiibiwing Cultural Society; and the Saginaw-Chippewa Tribe.

One major component of the IPinCH project was a series of 12 community-based studies focused on heritage needs (see Table 1). In each case, community values and needs were foregrounded by research in which the community was in the driver's seat. Each study was developed with the community, which determined research goals, identified the most appropriate methods to employ, reviewed research products and data to determine what information could be shared, and retained full control of project from start to finish. Most importantly, the community was the primary beneficiary of the research, as the following two examples illustrate.

***Yukon First Nations Heritage Values and Resource Management*⁹**

This project was developed to identify the nature of heritage from the perspectives

of three participating Yukon First Nations: the Champagne and Aishihik First Nations, the Carcross-Tagish First Nation and the Ta'an Kwach'än Council. Goals included: 1) documenting how "heritage value" is defined by Elders, heritage workers, youth and others; 2) learning about who (individuals, families, clans, governments, organizations) has stewardship responsibility for the different aspects of Yukon First Nations heritage; and 3) determining what constitutes stewardship of the different aspects of YFN heritage (Carcross-Tagish First Nation et al. 2016: 2).

Although community participants identified various archaeological or heritage objects and places as culturally important, what was most highly valued were the relationships and the stories attached to them that established their significance. As the team noted, "understandings of what constitutes YFN's ownership and management may vary with the nature of an item, spiritual powers or practice, or stewardship responsibilities derived from their laws. These may or may not place emphasis on the age of an item, geographical location, or ancestral connection through acts of creation or prior physical possession".

***Stó:lō Nation: The Journey Home*¹⁰**

For the Stó:lō Nation of British Columbia, the process of repatriating their ancestors from the Laboratory of

⁹ <http://www.sfu.ca/ipinch/project-components/community-based-initiatives/yukon-first-nations-heritage-values-and-heritage-reso/>

¹⁰ <http://www.sfu.ca/ipinch/project-components/community-based-initiatives/journey-home-guiding-intangible-knowledge-production-/>

Table 1. IPinCH-funded Community Initiatives

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- “A Case of Access: Inuvialuit Engagement with the Smithsonian’s MacFarlane Collection” (NWT) — Repatriation and restoration to community of knowledge from museum collections.
 - “Education, Protection and Management of *ezhibii- gaadek asin* (Sanilac Petroglyph Site)” (Michigan) — Co-management of petroglyphs and their intangible values.
 - “Cultural Tourism in Nunavik” (Quebec) —Protection of Inuit language and heritage in the context of cultural tourism.
 - “Developing Policies and Protocols for the Culturally Sensitive Intellectual Properties of the Penobscot Nation” (Maine)— Long-range stewardship plan and research protocols for tribal intellectual property.
 - “Grassroots Heritage Resource Preservation and Management in Kyrgyzstan:” (Krygystan) — Developing sustainable community projects that preserve and teach about intellectual property and cultural heritage.
 - “Hokotehi Moriori Trust: Heritage Landscape Data Base” (Rehoku, New Zealand) — Database of traditional knowledge of cultural landscape that brings together elders and youth.
 - “Secwepemc Territorial Authority – Honoring Owner- ship of Tangible/Intangible Culture” (British Columbia) — Exploring “cultural heritage” when Secwepemc peoples have economic, political, and legal authority.
 - “The Journey Home - Guiding Intangible Knowledge Production in the Analysis of Ancestral Remains” (British Columbia) — Developing protocols for acceptable methods of study of Stó:lō ancestral remains before reburial.
 - “The Ngaut Ngaut Interpretive Project” (Australia) — Development of culturally sustainable interpretive content online for important heritage site through a community-based approach to interpretive materials
 - “Treaty Relations as a Method of Resolving IP Issues” (Canada) —Using 19th-century treaties as a frame- work for resolution of outstanding intellectual property and heritage issues today.
 - “Yukon First Nations Heritage Values and Heritage Resource Management” (Yukon) — Identifying local conceptions of heritage values in aid of self-governing Yukon First Nations’ management of their heritage resources.
 - “The History and Contemporary Practices of the Hopi Cultural Preservation Office” (Arizona) — An examination of the Hopi Tribe’s navigation between radically different conceptualizations of Hopi cultural knowledge and those informing Euro-American interests.

Archaeology, University of British Columbia, is informed by knowing as much as possible about the lives of those individuals. This collaboration provided the opportunity for determining the types of anthropological research and scientific analyses that may be used to answer community-based questions, including: who decides which questions to ask and which means of research to implement?; who interprets the results?; who owns those data?; how do “scientific” and “cultural” ways of knowing interrelate?; and who is allowed to share in and benefit from this knowledge?

The Stó:lō team developed guidelines for culturally appropriate research on ancestral human remains, with careful control of the knowledge produced, based on discussions with community-based researchers, cultural leaders, spiritual practitioners, and LOA archaeologists and bioanthropologists.

Speaking of what was learned through the authorized studies of his ancestors, Herb Joe, a member of the Stó:lō House of Respect Committee, stated, “What comes to mind for me is the gift of knowledge [and] awareness that is happening for use [in working] with the ancestors. The amount of knowledge that we’re acquiring and will continue to acquire with the DNA samples and all that, that’s going to be a gift to the Stó:lō people.... our children, grandchildren, and great grandchildren, they’re going to be healthier people with the gift of this knowledge about who they are and where

they came from” (Schaepe et al. 2015: 32).

Protecting Heritage through Intervention

In 2014, IPinCH Project members made an intervention at Grace Islet, BC, where a house was being built on top of 16 recorded burial cairns (Nicholas et al. 2015). Construction was initially allowed to proceed by literally building around or on top of several of the cairns. For his part, the landowner satisfied all requirements of the heritage legislation. But while the burials remained intact, considerable harm was nonetheless done according to local First Nations. Although construction was eventually stopped, it is shocking that such a plan was ever considered acceptable in the first place.

Seeking to help achieve a resolution, IPinCH Project members sent an open letter to provincial authorities, pointing to the need to view the local controversy more broadly. We noted that the privileging of land and site alteration over the protection of Aboriginal rights and interests was inconsistent with the intent of international Indigenous rights and cultural heritage law, including UNDRIP. We also highlighted how the province’s current legal and policy framework for heritage failed to reflect emerging national and international norms related to Indigenous legal and cultural traditions and human rights.

We then developed the *Declaration on the Safeguarding of Indigenous Ancestral Burial Grounds as Sacred Sites and Cultural Landscapes*.¹¹ In it, we called on all levels of

¹¹ <http://www.sfu.ca/ipinch/resources/declarations/ancestral-burial-grounds/>

government, heritage professionals and others to work together to ensure such sites are not subject to alteration or damage. It also served to remind non-Indigenous governments in Canada of their *existing* legal and ethical obligations with respect to First Nations sacred sites in which human remains of cultural and spiritual significance are interred. The declaration was endorsed by all First Nations leadership in British Columbia, as well as by the Society for American Archaeology, the American Anthropological Association, Canadian Archaeological Association, and other organizations. The Grace Islet case was “resolved” when the province purchased the islet. We believe that this intervention aided in a settlement being reached, in part by bringing international attention to the case.

Was harm done in the Grace Islet case? If so, to whom? And were those harms acknowledged and recompensed? Based on the terms of the province’s purchase, the landowner was paid \$5.45 million, of which \$840,000 was for the property itself, and \$4.6 million for “losses suffered.” What went unremarked was that the First Nation received no recompense for the far more serious harms it endured. Adding insult to injury, the purchase was made to protect “the rare ecology” of the islet — there was no mention by the province of the real reason, which was the burial ground.

This particular form of resolution has done nothing to change existing heritage legislation or its application, despite the province’s pledge for a full review of heritage legislation. British Columbia already

has a dismal record of similar cases—Craig Bay, Nanoose; Poets Cove, South Pender Island; Walker’s Hook, Salt Spring Island; Lightning Rock, Chilliwack— so it remains only a matter of time before new controversies arise.

Conclusions

Archaeologists, academics, and others who are the gatekeepers or managers of heritage objects, places, and information need a better understanding of the cultural systems they engage with – and of the nature of cultural property therein. Managing other peoples’ heritage imposes great responsibility onto those charged with that formidable task, and even more so when those individuals are from another culture. As a North American archaeologist, most of my career has focused on discovering and learning from someone else’s culture. My own heritage is elsewhere, in Greece and the Ukraine. I want to be as respectful of your heritage as I hope others will be of mine.

With that in mind, I share my archaeological mantra—three questions that guide my actions: “Why do we do archaeology? For whom do we do it? How best can it be done?”

All of us here seek a fuller understanding of the world around us, but that quest should not be limited to the past. We must also ensure that we always keep the present, that is living peoples, in mind. These are six things we need to work towards:

- 1) getting anthropology back into archaeology – we need the conceptual tools and motivation to consider past

- lives very different from our own;
- 2) instilling a greater sense of responsibility and better understanding the consequences of our actions;
 - 3) educating both the public and policy makers;
 - 4) preparing our students for the archaeology that is now, not the archaeology that was;
 - 5) promoting social justice by putting TRC and UNDRIP into action; and
 - 6) working towards *real* reconciliation.

This last point is important. While I support the widespread support of reconciliation, I am frustrated by the shallowness of the efforts. Repatriation has to mean more than just saying “sorry” – it means changing fundamentally how things are done. Too few practitioners and policy makers are willing to make that happen within the heritage realm.

The quest for knowledge of the original (and current) roles and values of historic objects or places of spiritual importance is situated within a suite of political, interpretive, and philosophical positions. This situates all of us,—regardless of race, ethnicity or identity—in the awkward position of determining how we can learn about unfamiliar belief systems and rationales without intruding further into business that is not ours. Such tensions should be welcomed as they tend to force action and may drive respectful and mutually rewarding conversations. But first must come the recognition that the control of one’s own

heritage is a basic human right, and that we, as archaeologists, are at the forefront of protecting and promoting that right through our efforts.

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REFERENCES CITED

- Anderson, Christopher (editor)
1995. *Politics of the Secret. Oceania Monograph 45*, University of Sydney.
- Anderson, Jane, and Haidy Geismar (editors)
2017 *The Routledge Companion to Cultural Property*. Routledge, London and New York.
- Augustine, Stephen J.
1997 Traditional Aboriginal Knowledge and Science versus Occidental Science. Biodiversity Convention Office of Environment Canada, Ottawa.
- Bell, Catherine, and Val Napoleon (editors)
2008 *First Nations Cultural Heritage and Law: Case Studies, Voices, and Perspectives*. UBC Press, Vancouver.
- Bell, Catherine, and Robert Paterson (editors)
2009 *Protection of First Nations Cultural Heritage: Laws, Policy, and Reform*. UBC Press, Vancouver.
- Brown, Michael

2003. *Who Owns Native Culture?*: Harvard University Press, Cambridge.
- Bruchac, Margaret M., Siobhan Hart, and H. Martin Wobst (editors)
2010. *Indigenous Archaeologies: A Reader on Decolonization*. Left Coast Press, Walnut Creek, CA.
- Bruchac, Margaret M.
2014 Indigenous Knowledge and Traditional Knowledge. *Encyclopedia of Global Archaeology*, edited by Claire Smith, pp. 3814-3824. New York: Springer.
- Canada, Supreme Court of
2002 Kitkatla Band v. British Columbia (Minister of Small Business, Tourism and Culture), [2002] 2 S.C.R. 146, 2002 SCC 31. Electronic document, <https://scc-csc.lexum.com/scc-csc/scc-csc/en/item/1970/index.do>
- Carcross-Tagish First Nation, Champagne & Aishihik First Nations, Ta'an Kwach'an Council, Tr'ondek Hwech'in First Nation, Sheila Greer, and Catherine Bell
2016 Yukon First Nations Heritage Values and Resource Management - Perspectives from Four Yukon First Nations: IPinCH Case Study Final Report. Electronic document, http://www.sfu.ca/ipinch/sites/default/files/resources/reports/yfn_ipinch_report_2016.pdf,
- Clarke, David L.
1973 Archaeology: The Loss of Innocence. *Antiquity* 47(185):6–18.
- Cox, James L.
2018. *Restoring the Chain of Memory: T.G.H. Strehlow and the Repatriation of Australian Indigenous Knowledge*. Equinox, Sheffield and Bristol.
- Harris, Heather
2005 Indigenous Worldviews and Ways of Knowing as Theoretical and Methodological Foundations for Archaeological Research. *Indigenous Archaeologies: Decolonizing Theory and Practice*, edited by Claire Smith and H. Martin Wobst, pp. 33–41. Routledge, New York.
- Hillerdal, Charlotte, Anna Karlström, and Carl-Gosta Ojala (editors)
2017 *Archaeologies of 'Us' and 'Them' – Debating the Ethics and Politics of Ethnicity and Indigeneity in Archaeology and Heritage Discourse*. Routledge, London and New York.
- Kapchan, Deborah
2014 *Cultural Heritage in Transit: Intangible Rights as Human Rights*. University of Pennsylvania Press, Philadelphia.
- McLay, Eric, Kelly Bannister, Leah Joe, Brian Thom, and George Nicholas
2008 *A'lhut tu tet Sul'hweentst* “Respecting the Ancestors”: Understanding Hul'qumi'num Heritage Laws and Concerns for Protection of Archaeological Heritage. In *First Nations Cultural Heritage and Law: Cases studies, Voices and Perspectives*, edited

- by Catherine Bell and Val Napoleon, 158–202. Vancouver: UBC Press.
- Nicholas, George
1988. Ecological Leveling: The Archaeology and Environmental Dynamics of Early Postglacial Land-Use. In *Holocene Human Ecology in Northeastern North America*, edited by George P. Nicholas, pp. 257–296. Plenum Press, New York.
- 2003 “Understanding the Present, Honoring the Past.” Plenary Session, 32nd Chacmool Conference: “Indigenous Peoples and Archaeology.” University of Calgary, Alberta.
- 2008 “Native Peoples and Archaeology (Indigenous Archaeology).” *The Encyclopedia of Archaeology*, edited by D. Pearsall, Vol. 3: 1660–1669. Elsevier, Oxford.
- 2012 “Making Us Uneasy”: Clarke, Wobst, and Their Critique of Archaeology Put into Practice. *Archaeologies* 8(3): 209–224.
- 2014 “Why Heritage is Not *Just* About ‘Things’.” TEDx Yellowknife, in conjunction with *Itaa Yati* Traditional Knowledge Symposium. Yellowknife, NWT. Electronic document, <https://www.youtube.com/watch?v=HbPLXTJwVMY&list=PLjMPDTlr8hYk3cIx-Xa00FR3uAde6VnK6>
- 2015 Why Heritage is Not Just About ‘Things’. *TEDx Talk*. Electronic document, <https://www.youtube.com/watch?v=HbPLXTJwVMY>
- 2017a Culture, Rights, Indigeneity, and Intervention: Addressing Inequality in Indigenous Heritage Protection and Control. In *Archaeologies of ‘Us’ and ‘Them’ –Debating the Ethics and Politics of Ethnicity and Indigeneity in Archaeology and Heritage Discourse*, edited by Charlotte Hillerdal, Anna Karlström, Carl-Gosta Ojala, pp. 199–216. Routledge, London and New York.
- 2017b Touching the Intangible: Situating Material Culture in the Realm of Indigenous Heritage Research. In *The Routledge Companion to Cultural Property*, edited by Jane Anderson and Haidy Geismar, pp. 212–231. Routledge, London and New York.
- 2017c “Threats to Bear Ears and other Indigenous Sacred Sites are a Violation of Human Rights.” *The Conversation*. Electronic document, <https://theconversation.com/threats-to-bear-ears-and-other-indigenous-sacred-sites-are-a-violation-of-human-rights-87609>
- 2018 “Converging or Contradictory Ways of Knowing: Assessing the Scientific Nature of Traditional Knowledge.” Guest columnist, Traditional Ecological Knowledge, U.S. National Parks Service. <https://www.nps.gov/subjects/tek/george-nicholas.htm>
- Nicholas, George, Brian Egan, Kelly Bannister, and Emily Benson
2015 Intervention as a Strategy in Protecting Indigenous Cultural Heritage. *The SAA Archaeological Record* 15(4): 41–47.

- Nicholas, George, and Julie Hollowell
2007 Ethical Challenges to a Postcolonial Archaeology. In *Archaeology and Capitalism: From Ethics to Politics*, edited by Y. Hamilakas and P. Duke, pp. 59–82. Left Coast Press, Walnut Creek, CA.
- Nicholas, George, and Nola M. Markey
2014 Traditional Knowledge, Archaeological Evidence, and Other Ways of Knowing. In *Material Culture as Evidence: Best Practices and Exemplary Cases in Archaeology*, edited by Robert Chapman and Alison Wylie, pp. 287–307. Routledge Press.
- O'Brien, Michael J., R. Lee Lyman, and Michael B. Schiffer
2005 *Archaeology as a Process: Processualism and its Progeny*. University of Utah Press, Salt Lake City.
- Riley, Mary (editor)
2004 *Indigenous Intellectual Property Rights: Legal Obstacles and Innovative Solutions*. AltaMira Press, Walnut Grove, CA.
- Samuels, Kathryn Lafrenz, and Trinidad Rico
2015 *Heritage Keywords: Rhetoric and Redescription in Cultural Heritage*. University Press of Colorado, Boulder.
- Schape, David M., Susan Rowley, Stó:lō Xyolhmet S'olhetawtxw Sq'eq'ip (Stó:lō House of Respect Committee) Members, with Diane Weston, and Michael Richards
2015 The Journey Home - Guiding Intangible Knowledge Production in the Analysis of Ancestral Remains: IPinCH Final Project Report. Electronic document, <http://www.sfu.ca/ipinch/resources/reports/journeyhome/>
- Silverman, Helaine, and D. Fairchild Ruggles
2007 "Cultural Heritage and Human Rights." In *Cultural Heritage and Human Rights*, edited by Helaine Silverman, and D. Fairchild Ruggles, pp. 3–29. New York: Springer.
- Times Colonist
2012 "Private property rights at stake in development." *Times Colonist*. Electronic document, <https://www.mail-archive.com/natnews-north@yahoogroups.com/msg12676.html>
- Widdowson, Frances, and Albert Howard
2008 *Disrobing the Aboriginal Industry: The Deception behind Indigenous Cultural Preservation*. McGill-Queen's University Press, Montreal and Kingston.
- Wilson, Jordan
2016 "Belongings" in "čəsnaʔəm: The City Before the City." Electronic document, <http://www.sfu.ca/ipinch/outputs/blog/citybeforecitybelongings/>.
- Zimmerman, Larry J.
2010 Archaeology Through the Lens of the Local. In *Archaeology in Situ: Local Perspectives on Archaeology, Archaeologists, and Sites in Greece*, edited by Ann Stroulia and Susan Buck Sutton, pp. 473–480. Lexington Books, Lanham, MD.

GENDER IN ARCHAEOLOGY: WHERE ARE WE NOW?

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ABSTRACT

A brief review of gender in archaeology in the last 50 years, with special emphasis on equity for women in the past, and the need for archaeologists to be aware of the ways our work is used and seen by the public.

First I want to say hearty Congratulations to Chacmool at 50! The Chacmool conference has explored many facets of archaeology and never stops expanding archaeological horizons, for which we have to thank its forward-looking archaeological faculty, who energize innovative students and allow them the opportunity to explore new ideas.

I was asked to compare the early essays on gender in archaeology, and ask the question, do we archaeologists still need to pay attention to gender? When poking through my books, I found an essay that, to me, epitomizes why we still need gender in archaeology. Titled, “Escape from the Five-Million-Year-Old Suburb,” Rebecca Solnit as recently as 2015 writes about *Man the Hunter*. “This narrative,” she writes,

“attempts to trace the dominant socio-economic arrangements ... of the middle class back to the origin of the species!” Good grief, fellow archaeologists! Haven’t we done better than that? Why can’t this tale be wrapped in mothballs? The *Man the Hunter* Symposium was half a century ago! (Lee and DeVore 1968).

Before asking where we are now, we have to revisit where we have been. As a group, we have run the intellectual equivalent of many marathons since sometime in the 1970s, when I wanted to teach a class on Women in Archaeology, but no such concept existed yet. Most of the readings I assigned by necessity were written by cultural anthropologists (e.g. Rosaldo and Lamphere, eds. 1974).

In writings on gender in archaeology

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we have made giant strides since the first gender conference at Chacmool, but we have not all been striding in the same direction. Papers in the *Archaeology of Gender* volume (Walde and Willows, eds. 1991) demonstrate a striking lack of focus. In spite of this, it is clear that at first “gender” was (for many) a code word for women. At that Chacmool, Margaret Conkey spoke of feminism and archaeology, of “placement of women in the center, as subjects of inquiry and as active agents in the gathering of knowledge” (Conkey p. 25). I found this statement inspiring at the time, and I still do. The papers at the Chacmool meeting covered many topics, including equity issues for women archaeologists, ways that women in the past were presented or ignored in our sub-disciplines of archaeology and places of work, feminist critiques, and sex differences, underlining the emphasis on women. The speakers were predominantly women. I can’t find any attempt to define ‘gender’ but, in spite of that, it was a topic that caught fire among women who study the past, especially as we realized that women were largely left out of our standard narratives of the past, starting with the concept of “Man” and “Mankind.”

The topic of gender in archaeology has inspired substantive changes in many areas. It has stimulated revisions to our understandings of the archaeological past, as well as proposing major changes to the way we do archaeology, the problems we study, and the even the make-up of the archaeological community itself. When I first aspired to be an archaeologist,

archaeology was described as “a band of brothers.” “Brothers” has had to be redefined.

But when I began to sort through my book shelves, three long rows of gender in archaeology volumes spilling into a fourth shelf of goddesses, shamans, and queens, not to mention stuffed folders of gendered articles to which I regularly refer, I realized that no summary could possibly do justice to this outpouring of scholarship and research on gender in archaeology. I can only say “bravo” to so many enlightening and path-breaking archaeologists; “bravo” not only in the Italian sense of “good,” or even “fabulous,” in the language of opera-goers but in the meaning of its English cognate, “brave.” When discussing gender in archaeology was new, authors had to be incredibly brave to face the disdain and even contempt for the topic from some of our colleagues. Addressing the gender problems was especially brave for students. Some scholars who are relatively new to archaeology may not know that back in the early days, writing about gender in archaeology could be dangerous to your career in archaeology. As late as 1987, Alice Kehoe and I had to obfuscate our gendered intention by calling a session, “Powers of Observation: Alternative Views in Archaeology” . . . and that was at a meeting of AAA, not at SAA, where our wickedness might have been ferreted out and given no time in the program. And yes, this is ancient history for students many, but archaeologists especially should realize the importance of understanding the past!

Although other ways of framing the topic of gender in the past were offered, in my own work, gender in archaeology was inspired by the feminist revolution and was primarily about women, including equity issues, in Alison Wylie's (1994) apt phrase (who could disagree with equity?). In my head, the project involved another form of equity: equity for research about women in the past. Starting with equity for women both in the present and in the past, critiques became obvious, examining archaeological theory and archaeological practices, which obscured the equities.

I was particularly influenced by feminist critiques from other academic disciplines, especially the sciences, in which a "female" perspective on a research subject was seen as positive and productive. Whether there is such a thing as a female perspective in today's academic world could be debated, but at that time it was assumed.

Gender in archaeology has spread out beyond its feminist beginnings in many ways. Not only has light been shone on a variety of ways for individuals to be gendered (or ungendered) in the past as well as in the present, and for societies to allow or disallow exceptions to norms, but archaeologists have explored race, class, age, and other ways that people may be simultaneously exploited or undervalued or even ignored in the archaeological past. The intersectionality of individual lives has been brought to scholarly attention following the intense discussions that framed feminism, but which have resonance with archaeology's immense view

of cultures around the world and through time.

After I discarded the idea of summarizing the results of what I have conceptualized as the gender in archaeology project, surrendering to the inevitable because gender in archaeology is too complex a topic to encapsulate the many avenues it has explored. Then, I thought, maybe I can discuss where gender archaeology is going. But this effort takes one down different labyrinthine paths. Gender in archaeology has so many offshoots and branches that I have to admit to being overwhelmed at the thought of even naming them, much less coming to grips with their contributions. Even if I only confined my comments to women past and present, ignoring queer and third gender explorations, there is too much literature for me to attempt master – at least as a retiree!

Next, I jotted down some readings I should return to, beginning with the 1991 Chacmool volume, my copy of which is so tattered and taped that I am almost afraid of how many pages will fall out when I open it. Maybe it is Pandora's box, letting loose gifts for archaeologists (after all Pandora means All Gifts, not All Evils). Then I leafed through Alison Wylie's wonderful and challenging book, *Thinking Through Things*, and closed it again, overwhelmed by the fact that Wylie defined the archaeological project so completely and cogently that it left me speechless as well as breathless. Who was I to try to summarize the precise and complex arguments put forth in her stunning book?

Thus, as I sat at my computer to write this paper, I had to ask myself, do I have anything left to say about gender in archaeology? After publishing two editions of *Gender in Archaeology, Analyzing Power and Prestige*, as well as an autobiography of my career, called *Shamans, Queens and Figurines*, which attempts to explain why I found gender in archaeology so fascinating, an edited *Handbook of Gender in Archaeology*, to which many prominent practitioners of gender archaeology generously contributed, four other edited books with gender in the title or subtitle, at least ten chapters in other books with gender or women or feminist in the title, three encyclopedia articles, and various other papers, I am not so much weary of the subject as I am truly out of new things to say. The well of inspiration about gender in archaeology turns out not to have limitless outpourings.

There may be an argument that has been debated in the field so long provides a valuable longitudinal perspective. Long ago, when I was a new Assistant Professor, I signed up for a round table with Margaret Mead at an AAA meeting that happened to be in Denver. My friend and I elbowed each other ("Look there she is!") as the venerable Mead appeared in her customary caftan, carrying her legendary forked staff. I was impressed that she was there at all at her age; she didn't have to say anything. And in fact, she didn't say anything new. So now that I have become one of the Elders myself (without caftan and staff), I feel required to pontificate, and tell you what I see in the

lengthening shadows of the archaeology of gender. I am still here, and still trying to entice non-archaeologists to share our vision of women of the past by other means, such as fictionalizing important sites that feature prominent women of the past. This is my notion of equity for women in the past. I want to spread the word of women's accomplishments widely, even if they were in Shang China in 1250 BCE. It is my answer to the homogenizing of women's abilities and experiences that used to be commonplace.

But what does a feminist stance have to do with archaeology? As a small example of the way an emphasis on gender can reorient basic archaeological concepts, I offer a summary of an invited paper I wrote for an invited symposium about a decade ago. My paper apparently sent one of the reviewers into apoplexy. I'm sorry I can't find the immoderate critique to quote it, but you can judge for yourself how radical these ideas are.

The paper in question was called "A Perspective from East Asia on Periodizations in Archaeology." I offered three examples of why standard archaeological time divisions or titles of eras fail to fit what we archaeologists have found in East Asia. Problem One tackled the question of how to label the era when pottery began. Some of the earliest pottery in the world has been found in East Asia. Many Asian archaeologists label it 'Neolithic,' although there is not a whiff of domesticated plants or animals accompanying the first ceramics. I had the temerity to suggest that the invention of pottery might be related to cooking wild

plants, to make them digestible by humans as sea level rose, and defended using the term Neolithic. After all, if there is Pre-Pottery Neolithic, why can't there be Pre-Neolithic pottery?

Problem Two was related to the origin of states. K. C. Chang was dedicated to the idea of shamans as the forerunners of kings. I pointed to a number of East Asian sites where the shaman and leader appeared to be a woman and asked whether they could have been leaders.

My third example was the problem of written history that obscured a woman leader in the Silla kingdom of Korea who could be recognized archaeologically as a queen, but she was not acknowledged as a queen because no such queen was in the histories, written several hundred years after she reigned. I pointed out that the difficulty of recognizing a burial that was clearly royal as the burial of a reigning queen was with the history, not the archaeology. Revising written history with archaeological discoveries appears to have been another no-no, especially if it turns a king into a queen.

I concluded that "periodizations are tools to think about changes in human societies. But they can also put thinking in strait jackets, which prevent us from seeing in new and more productive ways, ways that respond to the evidence rather than preconceived ideas about the order of things or human nature or the importance of various technologies. These examples from East Asia contrast with the usual ways of dividing time and explaining cultural evolution in archaeology, and therefore are useful to

highlight a general problem with labels, whether of periods or of stages."

Even this mild suggestion that archaeology might order things differently in the light of a feminist critique called forth a vitriolic attack. This was not back in the dark ages, it was about ten years ago. Not all archaeologists are open to basic ideas being challenged, especially in the name of gender.

So, aside from some reviewers, are there real changes in the way archaeologists think about gender, both as archaeologists and as societies, as a result of the hard work of a great many archaeologists? The good news is that it has been almost half a century since authors could write of "women's status" in a society, or "women's place" in a culture, as if "women" comprised a group that as a whole could have a single status as opposed to all men, or worse yet, a "place" where women could be kept from interfering in the serious works of men. Both of these concepts sprang from ways of seeing the world based on male experiences, and often by male authors, homogenizing women into a mass of uninteresting chores involving children and general upkeep of households, extrapolated to the past or simply existing since time immemorial because of the nature of females. Thanks to hundreds of careful research projects, we are more enlightened about variations in "women's work", the existence of women leaders in many times and places, the contributions of females to many cultures, and so much more.

If we archaeologists have brought about some changes, do we still need gender studies in archaeology? Let's first consider

Equity Issues, which seemed more urgent in 1991 than they do today. There are more women in archaeology, more women professors, more women in administrative roles in universities and all the other places where archaeologists work. My sense is that overt discrimination may exist but is less common, since systematic rules (such as the nepotism laws that often meant a woman could not be a professional in the same institution as her husband) have been overturned by demonstrating the ways they discriminate, and by important laws in the US such as Title 9 and Title 7, often enforced through women lawyers and judges.

More subtle disadvantages may have taken their place, however. There are still complaints about slights, instances of harassment, and favoritism. But now we have names for such behaviors, and they are illegal. But having more women than men in graduate archaeology programs does not necessarily mean that subtle barriers have disappeared, even if they appear to be fewer.

More women lead field projects, but as has been recently affirmed, fewer women than men receive federal grants, especially large multi-year grants to build a career on. Fewer women in the academic world teach in departments with Ph.D. students, on which many multi-year complex projects depend. These are not trivial impediments to a career.

In response to discriminatory practices, some women archaeologists created and filled new niches, were the first to pioneer the archaeology of new locations, or explored adjunct sciences and their applications to archaeology. Women have been creative and

adaptive in order to be contributing archaeologists, and have done much service to archaeology in doing so.

But, as we have also learned at recent SAA meetings, women still disproportionately undergo societal and biological pressures that complicate our work. The question of balancing work and family is far from a trivial one for fieldwork. Decisions about having children – when, how many, who will be the caretakers, weigh on young women archaeologists. What about to do about fieldwork and children? Take them? Then who will look after them in the field? Leave them with another care-giver? Who is responsible for the kids anyway? These are important issues for every new generation of women archaeologists. I found Cheryl Sanderson's perspective in the book *Lean In* offensive as it seems to ignore the societal pressures on all but the most affluent women. Whose research grant includes a line for a nanny? Raise your hand if you have outside help for your childcare!

It is still important to counter the stereotypes our culture carries about women, even after feminism created “a world split open” (Rosen 2000). Archaeologists should be able to provide evidence for beliefs about gender in the past, not just assert them. Early in my career, when I began to extend the notion of equity to women in the past, I was taken aback when this point of view was satirized as “add women and stir.” Not daunted, I *still* want to be a voice for ancient women. I think we definitely should add women to what we know of the past, and everyone will have a better sense of the

contributions of women to the richness of the past because of it. Our cultural stereotypes are based on outdated clichés, produced by long-gone archaeologists. In spite of the many women who have brought us new knowledge, the general public still knows (or thinks it knows) more about ancient men than ancient women. What's worse, we still presume more significant roles for men in the past than we do for the women in the pasts we study. Who were all those "chiefs" that were in charge of non-state societies? Why do most people assume the chiefs are men? Or is the better question, why is leadership gendered male? Is chief a gender-neutral word? What about the grandmothers? Why are all the influential women in Chinese history treated as scoundrels, not to mention many women of Judeo-Christian traditions? "Women shall not rule," says a Chinese aphorism, although one of the most successful emperors in Chinese history was an empress. Clearly, the category "women" was made to have a negative meaning in the Chinese case, and many histories of other cultures are guilty of slighting or even erasing the accomplishments of women.

I don't mean to be entirely negative on this score, there has been progression in changing the common stereotypes about women in western cultures, but popular culture is slow to rid itself of such easy targets. This point seems critical to me in the context of ways women and men appear in jokes. (such as men as hunters and women as gatherers – in the grocery store!).

If nothing else, we as archaeologists should be able to show that women's roles in

society were varied and that women did not always belong to the "second sex." I believe it is critically important in today's world to show that the past included women as leaders, from shamans to queens. How else could a woman with solid credentials be so vilified in an election? On a recent trip to Iran, a fellow traveler came up to me and said, with no prelude, "I hate Hillary Clinton." On probing her statement, I learned that in her eyes Secretary Clinton had committed the sin of "wanting to be president." How can women succeed and prosper in cultures where ambition is sinful in women? Misogyny is still deeply embedded in American culture, in view of the number of viewers willing (and perhaps eager) to believe the lies that have now been shown to have been created and perpetuated by Russian hackers.

The findings of archaeology have real-world consequences. Rebecca Solnit concludes the essay with which I began this talk with a quote from a "men's rights ranter" saying, "women have not evolved at all because women never worked . . ." She explains that "his fury is based on a fiction, which would be ridiculous if it were not the extreme form of a widely-shared belief, one that paints a fairly sad picture of the human species, with both men and women having fixed and alienated roles."

So, my answer is yes, gender in archaeology is needed more than ever, for the sake of women in the present as well as women in the past.

REFERENCES CITED

- Conkey, Margaret
1991 Feminism, Does It Make a Difference? Feminist Thinking and the. In *The Archaeologies of Gender. In Archaeology of Gender*, D. Walde, and N. D. Willows, eds. Calgary: Chacmool.
- Lee, Richard B., and Irven DeVore
1968. *Man the Hunter*. Chicago: Aldine.
- McMahon, Keith
2013 *Women Shall Not Rule*. Lanham: Rowman and Littlefield.
- Nelson, Margaret, Sarah M. Nelson, and Alison Wylie
1994 *Equity Issues for Women in Archeology*, M. Nelson, S. Nelson, and A. Wylie eds. Archeological Paper No. 5, American Anthropological Association, Washington, D.C.
- Nelson, Sarah M.
1997 *Gender in Archaeology: Analyzing Power and Prestige*. Walnut Creek: AltaMira Press.
2008 *Shamanism and the Origin of the State, Power and Gender in East Asia*. Walnut Creek: Left Coast Press.
- 2015 *Shamans, Queens and Figurines, The Development of Gender Archaeology*. Walnut Creek: Left Coast Press.
- Nelson, Sarah M., ed.
2003 *Ancient Queens, Archaeological Explorations*, Walnut Creek: AltaMira Press.
2006 *Handbook of Gender in Archaeology*, Walnut Creek: AltaMira Press.
- Nelson, S. M. and R. Ayalon, eds.
2001 *In Pursuit of Gender: Worldwide Archaeological Perspectives*. Edited, with Myriam Rosen-Ayalon, Walnut Creek: AltaMira Press.
- Nelson, S. M. and Alice B. Kehoe, eds.
1990 *Powers of Observation, Alternative Views in Archeology*. Archeological Paper No. 2, American Anthropological Association. Washington, D.C.
- Rosaldo, Michelle Z. and Louise Lamphere, eds.
1974 *Women, Culture and Society*. Stanford: Stanford University Press.
- Rosen, Ruth
2000 *The World Split Open*. New York: Viking.

Solnit, Rebecca

2017 *The Mother of All Questions*.

Chicago: Haymarket Books.

Walde, Dale and Noreen D. Willows, eds.

1991 *The Archaeology of Gender*.

Calgary: Chacmool.

Wylie, Alison

2002 *Thinking From Things*. Berkeley:

University of California Press.

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