



WILLIAM TIMOTHY TREAL TAYLOR

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PROFESSIONAL PREPARATION

University of New Mexico, Ph.D. Anthropology with Distinction, May 2017

- “The Origins of Horse Herding and Riding in the Eastern Steppe”

University of New Mexico, M.S. Anthropology, May 2013

- “High Latitudes, High Stakes: Arctic Conservatism, Biogeography, and the ‘Collapse’ of Norse Settlement in Greenland During the Little Ice Age”

Carleton College, B.A. International Relations *Magna cum Laude*, 2011

PROFESSIONAL EXPERIENCE

2019-present	Assistant Professor and Curator of Archaeology, CU Boulder Department of Anthropology/CU Museum of Natural History
2019 -present	Research Affiliate, Max Planck Institute for the Science of Human History
2017-2019	Postdoctoral Research Fellow, Max Planck Institute for the Science of Human History
2018-present	Adjunct Assistant Professor of Anthropology, University of New Mexico
2018-present	Research Associate, Biodiversity Institute, University of Kansas
2016-2017	Fulbright Researcher, National Museum of Mongolia
2015-2016	Curatorial Assistant, National Park Service Chaco Collections
2013-2014	Teaching Assistant, Department of Anthropology, University of New Mexico
2011-2014	Graduate Research Assistant, Maxwell Museum of Anthropology
2010	Intern, Smithsonian Arctic Studies Center, Washington, D.C.

FUNDING

2019. HKW/”Mississippi:An Anthropocene River” Initiative. “Horses, Donkeys, and the Anthropocene in the Greater Mississippi.”

2018 DAAD Joint Australia-Germany Research Cooperation Scheme, “Horses and Human Societies in New World Australia”

2016 Ambassador’s Grant, U.S. Embassy in Mongolia – “Tracing the Origins of Mongolia’s Early Horse Culture”

2015-16 Fulbright U.S. Student Research Award (#34154234), Mongolia, “Exploring Ancient Horse Use in the Mongolian Steppe”
2015 National Geographic Young Explorer’s Grant (#9713-15), “Bronze Age Riders? Evaluating Evidence for Horse Herding and Transport in Ancient Mongolia”
2015 National Science Foundation Doctoral Dissertation Improvement Grant (#1522024), “Domestic Horse Use in Ecological and Historical Context”
2014 American Center for Mongolian Studies Library Fellow
2013 Patrick Orion Mullen Award in Archaeological Science, University of Wyoming Frison Institute
2013 American Center for Mongolian Studies Summer Research Fellow
2011 NCAA Postgraduate Research Fellowship
2011 American Center for Mongolian Studies Summer Research Fellow

SELECTED PUBLICATIONS

Fages A, Kristian Hanghøj K, Gaunitz C, Naveed Khan N, Gamba C, Seguin-Orlando A, Leonardi M, Al-Rasheid KAS, Albizuri S, Alfarhan AH, Allentoft M, Alquraishi S, Anthony D, Benecke N, Bernáldez Sánchez E, Biglari F, Boessenkoel S, Boldgiv B, Brem G, Brown D, Burger J, Clavel B, Crubézy E, Daugnora L, de Barros Damgaard P, de Juan D, Deschler-Erb S, Ellingvåg S, Erdenebaatar D, Fathi H, Felkel S, Germonpré M, Hallson JH, Hofreiter M, Roya Kazaeli R, Khazanov M, Kosintsev P, Kristiansen K, Tabaldiev K, Kuderna L, Kuznetsov P, Laleh H, Leonard J, Lepetz S, Lhuillier J, Liesau von Lettow-Vorbeck C, Lougas L, Ludwig A, Luis C, Marques Bonet T, Mashkour M, Azadeh Mohaseb A, Morales A, Nieto Espinet A, Nistelberger H, Palsdottir AH, Pitulko V, Pizchelauri K, Pruvost M, Rajic Sikanjic P, Rannamäe E, Roslyakova N, Sauer E, Schafberg R, Scheu A, Schlumbaum A, Nathalie Serrand N, Serres Armero A, Beth Shapiro B, Shevnina I, Shidrang S, Southon J, Star B, Sykes N, Taheri K, **Taylor W**, Teegen W-R, Trixl S, Undrakhbold S, Usmanova E, Vahdati A, Lamas SV, Vedat O, Wallner B, Weinstock J, Zaibert V, Helgason A, Stefánsson K, Barey E, Willerslev E, Outram A, Librado P, and Orlando L.

2019. Tracking five millennia of horse management with extensive ancient genome time-series. *Cell* 176(6):1419-1435.

Taylor, William, Svetlana Shnaider, Robert Spengler, Ludovic Orlando, Aida Abdykanova, and Andrei Krivoshapkin

2019. Investigating ancient animal economies and exchange in Kyrgyzstan's Alay Valley. *Antiquity (Project Gallery)* 93(367). <https://doi.org/10.15184/aqy.2019.4>

Jeong, Choongwon, and Shevan Wilkin, Judith Littleton, Richard Hagan, Tsend Amgalantugs, Cheryl Makarewicz, **William Taylor**, Joshua Wright, Soninkhishig Tsolmon, Nicole Boivin, Martine Robeets, Abigail Bouwman, Christian Trachsel, Frank Rühli, Johannes Krause, Bruno Frohlich, Jessica Hendy, Christina Warinner.

2018. Manuscript submitted to Proceedings of the National Academy of Sciences, published ahead of print November 2018.

Taylor, William, Svetlana Shnaider, Aida Abdykanova, Antoine Fages, Frido Welker, Franziska Irmer, Andaine Seguin-Orlando, Naveed Khan, Katerina Douka, Ksenia Kolobova, Ludovic Orlando, Andrei Krivoshapkin, Nicole Boivin.

2018. Early Pastoral Economies along the Ancient Silk Road: Biomolecular evidence from the Alay Valley, Kyrgyzstan. Manuscript submitted to *PLoS One*, published ahead of print 31 October 2018.

Shnaider, Svetlana, and Kseniya Kolobova, Tatiana Filimonova, **William Taylor**, Andrei Krivoshapkin.

2018. New insights into the Epipaleolithic of Western Central Asia: the Tutkaulian complex. Manuscript submitted to *Quaternary International*, published ahead of print October 2018.

Taylor, William, Jamsranjav Bayarsaikhan, Dimitri Stazewski, Scott Bender, Jocelyn Whitworth, Tumurbaatar Tuvshinjargal, Monica Tromp, K. Bryce Lowry, William Fitzhugh, Nicole Boivin.

2018. Origins of Equine Dentistry. *Proceedings of the National Academy of Sciences*, published ahead of print 2 July 2018.

Fedorchenko A.Yu., Shnaider S.V., Krajcarz M.T., Romanenko M.E., Abdykanova A., Kolobova K.A., Alisher-kyzy S., **Taylor W.**, Krivoshapkin A.I.

2018. Production technology of personal ornaments in western Central Asia in early Holocene complexes. *Archaeology, Ethnography and Anthropology of Eurasia*.

Shnaider S.V., Abdykanova A., **Taylor W.**, Kolobova K.A., Krivoshapkin A.I.

2018. Early human occupation of high altitude in western Central Asia: new evidence from the Alay valley, Kyrgyzstan. *Antiquity* Vol 92 (June 2018).

Taylor, William, Jargalan Burentogtokh, K. Bryce Lowry, Julia Clark, Tumurbaatar Tuvshinjargal, and Jamsranjav Bayarsaikhan.

2017. A Bayesian Chronology for Early Domestic Horse Use in the Eastern Steppe. *Journal of Archaeological Science* 81:49-58

Taylor, William.

2017. Horse demography and use in Bronze Age Mongolia, *Quaternary International* 436:270-282.

Taylor, William, Tuvshinjargal Tumurbaatar, and Bayarsaikhan Jamsranjav.

2016. Reconstructing Equine Bridles in the Mongolian Bronze Age. *Journal of Ethnobiology* 36(3):554-570

Taylor, William, Bayarsaikhan Jamsranjav, and Tuvshinjargal Tumurbaatar.

2015. Equine Cranial Morphology and the Archaeological Identification of Riding and Chariotry: Applications to Mongolia's late Bronze Age. *Antiquity* 89(346): 854-871.

MONOGRAPH CHAPTERS

Taylor, William and Tumurbaatar Tuvshinjargal.

2018. Horseback riding, asymmetry, and anthropogenic changes to the equine skull: evidence for mounted riding in Mongolia's late Bronze Age. In Bartosiewicz and Gal (eds.), *Care or Neglect? Evidence of Animal Disease in Archaeology*. Oxford, Oxbow Books.

BOOK REVIEWS

Taylor, William. In press. Review: The Donkey in Human History: An Archaeological Perspective. Peter Mitchell. Oxford: Oxford University Press, 2018, 306 pp. £65.00, paper. ISBN 9780198749233. *Journal of Anthropological Research* (forthcoming).

Taylor William. 2017. Review: The Diffusion of a Postal Relay System in Premodern Eurasia. Didier Gazagnadou. Paris: Editions Kimé, 2016, 188 pp. €20.00, paper. ISBN 9782841747771. *Journal of Anthropological Research* 74(2):278-279

NON-REFEREED

Taylor, William.

2018. Exploring the Origins of Horse Herding and Riding in the Mongolian Steppe. *The Silk Road* 15:153-155.

Taylor, William.

2018. How Ancient Exchanges in Central Asia Shaped the Modern World. *The Diplomat*. 11 Apr 2018. <https://thediplomat.com/2018/04/how-ancient-exchanges-in-central-asia-shaped-the-modern-world/>

Taylor, William.

2017. Beyond Genghis Khan: how looting threatens to erase Mongolia's history. *The Guardian*, Science Notes & Theories. 26 October 2017. <https://www.theguardian.com/science/blog/2017/oct/26/beyond-ghengis-khan-how-looting-threatens-to-erase-mongolias-history>

Taylor, William.

2016. Archaeology sheds light on Mongolia's uncertain nomadic future. *The Guardian*, Science Notes & Theories. 7 December 2016. <https://www.theguardian.com/science/blog/2016/dec/07/archaeology-sheds-light-on-mongolias-uncertain-nomadic-future>

INVITED LECTURES

Horse Riding, Horse Herding, and The Origins of Mobile Pastoralism in Ancient Mongolia. National Museum of Natural History, Paris, France, March 2019.

Recovering Mongolia's frozen past: understanding taiga and alpine prehistory through ice patch archaeology. American Center for Mongolian Studies Summer 2018 Lecture Series, Natsagdorj Library, Ulaanbaatar, Mongolia.

Zooarchaeology by Mass Spectrometry (ZooMS) & archaeological research in Central Asia. Institute for Archaeology and Ethnography, Russian Academy of Sciences (Siberian Branch), Novosibirsk, Russia, March 2018.

3D Geometric Morphometrics in Archaeology. Henan Provincial Museum, Zhengzhou, China, January 2018. Horses and Human Societies. February 2nd, 2018, Arizona State Museum, Tucson, AZ, USA.

Animal Domesticates, the Silk Road, and Early Nomadic Occupation of Alay Valley, Kyrgyzstan. Paper presented at Telescopic and Microscopic Visions of Central Asian Prehistory, Max Planck Institute for the Science of Human History, Jena, Germany.

Equine Dentistry and Bit Technology in Ancient Eastern Eurasia. Paper presented at Human Development in Landscapes International Open Workshop 2017: Socio-Environmental dynamics over the last 12,000 Years, Kiel University, Germany.

3D Scanning for Archaeological Research and Cultural Heritage Preservation in Mongolia. Paper presented at Mongolian Archaeology: New Discoveries, New Concerns. University of California, Berkeley.

Early Nomadic Origins and Igniting Passion in a Scientific Career. TEDx Baga Toiruu 2016: IGNITE LOVE, Tanan Center, Ulaanbaatar, Mongolia. Mongolian Language, June 2016.

Understanding Ancient Horse Use in the Mongolian Steppe. American Center for Mongolian Studies Fall 2015 Lecture Series, Natsagdorj Library, Ulaanbaatar, Mongolia.

RESEARCH EXPEDITIONS

Projects managed as principal investigator:

2017-present: Co-director, Alay Valley Archaeology Project (with Russian Academy of Sciences, Novosibirsk), Alay Valley, Kyrgyzstan

2017-present MPI-SHH: Bagsagiin Bulan, Darkhad Basin, Mongolia

2017-present MPI-SHH: Tsagaan Asga, Bayan Ulgii, Mongolia

2016, Khangai Nomadic Heritage Project, Bayankhongor, Mongolia

2015 National Geographic/Bronze Age Riders? Northern Darkhad Basin, Mongolia

Projects joined as graduate assistant:

2015 Hartley Mammoth Excavation (NSF Award #1541294)

2011-14 Lake Clark/Katmai National Parks, Alaska (NSF Award # 0837844, "Ice Patch Archaeology", Principal Investigator E. James Dixon)

2012 Prince of Wales Island, Alaska (NSF Award #1108367, "Gateway to the Americas II", Principal Investigator E. James Dixon)

2011 Altai Tavan Bogd National Park, Mongolia (NEH, "Art and Archaeology of the Biluut Petroglyph Complex, Mongolia", Principal Investigators William Fitzhugh and Richard Kortum)

ORGANIZATION OF INTERNATIONAL CONFERENCES

2018. Animal Domestication and Biotic Exchange in East and Central Asia. 13th International Council for Archaeozoology Meeting, Ankara, Turkey.

2018. Domestication. International Symposium on Biomolecular Anthropology (ISBA), 2018 Annual Meeting

2017. *Telescopic and Microscopic Visions of Central Asian Prehistory*, Max Planck Institute for the Science of Human History, Jena, Germany.

2017. Human, Animal, and Environmental Interactions in Northeast Asia. 2017 Society for American Archaeology Annual Meeting, Vancouver, B.C.

PRIZES AND AWARDS

2019 Tom L. Popejoy Doctoral Dissertation Research Prize, University of New Mexico
2016-2017 Ruth Kennedy Dissertation Prize, University of New Mexico
2014 International Council for Archaeozoology Open Zooarchaeology Prize
2014 International Council for Archaeozoology Stine Rossel Dissertation Prize
2014 Society for Archaeological Sciences R.E. Taylor Student Poster Award
2011 Phi Beta Kappa, Minnesota Beta Chapter, Carleton College
2011 National Football Foundation Hampshire Honor Society
2011 Warren L. Beson Memorial Award (for academic excellence in athletics), Carleton College
2010 ESPN/CoSida Academic All-America Award, 2nd Team
2010, 2009, 2008 ESPN/CoSida Academic All-District Award
2010 Minnesota Intercollegiate Athletic Conference Academic All-Conference Selection
2007 United States National Merit Scholar
2007 United States Presidential Scholar

SUPERVISING AND MENTORING

2017-present: supervision of two Ph.D. candidates at MPI-SHH
2017-present: graduate instruction of Ph.D. candidates in Archaeozoology, MPI-SHH

Student presentations

2017. N. Case and **W. Taylor**. Photogrammetry and documentation of tangible heritage in the Khangai Mountains, Mongolia. Poster presented at the 2017 Society for American Archaeology Annual Meeting, Vancouver, B.C.
2018: N. Case, J. Clark, and **W. Taylor**. Digital Archaeology in Mongolia: Visualizing the Data. Paper presented at 2018 Society for American Archaeology Annual Meeting, Washington, DC
2018: Yue Li, Jian Ma, Yue You, Chengrui Zhang, Liang Chen, **William Taylor**. Paleopathology and Early Horseback Riding along the Proto-Silk Road: Evidence from the Early Iron Age Sites of Shirengigou and Xigou, Xinjiang, China. Paper presented at 13th International Council for Archaeozoology Meeting, Ankara, Turkey.

CERTIFICATIONS

2017. ArcGIS: Introduction to GIS 10.4, ESRI Deutschland
2015. A Comprehensive Guide to Bayesian Analysis of Radiocarbon Dates Using OxCal, University of Arizona Accelerator Mass Spectrometry Lab, Time Series: Seminars on Dating and Chronology, Tucson, Arizona.
2014. 4th Transmitting Science Workshop in 3D Geometric Morphometrics, Barcelona, Spain.

LANGUAGES

Advanced proficiency, Mongolian

Intermediate proficiency, Mandarin Chinese

SERVICE

Professional memberships

International Council for Archaeozoology
ICAZ Animal Paleopathology Working Group
Society for American Archaeology

Professional Service

Mongolian Translator, *Adventures in Archaeological Science* Coloring Book (2018)
Institute Organizer, MPI-SHH March for Science, Jena, Germany (2017)
Chair, Excavation Protocols Committee (MPI-SHH, Jena)
Contributor, National Geographic Voices
Contributing author, *The Guardian* Science Network
Reviewer, *Science*, *Proceedings of the National Academy of Sciences (PNAS)*, *PLoSOne*, *Journal of Archaeological Science*, *Anthropozoologica*, *Journal of Anthropological Archaeology*, *Journal of Archaeology for Asia and the Pacific* and *Journal of Ethnobiology*
Reviewer, Mongolia Fulbright Foreign Student Program
Web Editor, ICAZ Animal Paleopathology Working Group

SELECTED MUSEUM EXHIBITS

2016. English Editor and Exhibit Designer, Mongolia's Horse Culture Heritage. Exhibit hosted at the National Museum of Mongolia. July-August 2016.
2015. English Editor, "Nomads of the Great Steppes and Silk Roads." Exhibit hosted at the National Museum of Mongolia, August-September 2015.
2015. Curatorial Assistant, "Archaeology on Ice." Exhibit hosted at the Maxwell Museum of Anthropology, Albuquerque, NM. October 2015.
2013. Producer/Videographer/Editor: 2013 NPS Ice Patch Archaeology Video Series. Available at (<https://youtu.be/0Efr2eEcuP0>)

SELECTED PRESS COVERAGE

The Scientist: <https://www.the-scientist.com/notebook/---ancient-teeth-tell-the-history-of-equine-dentistry-64801>

CNN: <https://edition.cnn.com/2018/07/04/sport/horse-dentist-mongolia-spt/index.html>

Science Magazine: <http://www.sciencemag.org/news/2018/07/3000-year-old-sawn-tooth-may-be-earliest-evidence-horse-dentistry>

National Geographic: <https://www.nationalgeographic.com/science/2018/07/news-horse-veterinary-dentist-Mongolia-archaeology/>

International Business Times: <https://www.ibtimes.co.uk/origin-genghis-khans-skilled-horse-riding-culture-revealed-sacred-bronze-age-burial-mounds-1616716>