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HEAD OF PALEOETHNOBOTANY LABORATORIES & THE DOMESTICATION AND ANTHROPOGENIC EVOLUTION RESEARCH GROUP

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I supervise a team of scholars and run a laboratory that leads the way in the archaeobotanical sciences. The members of Spengler Lab engage in two linked areas of study: the domestication and dispersal of crops in prehistory and early history. They study the great trade routes of the ancient world, colloquially known as the Silk Road, and the ways that globalization fueled greater inequality, political development, and cultural change. They explore the links between the intensification of agriculture and the emergence of complex social systems. As a secondary branch of scholarship, my team is investigating changes in adaptations for seed dispersal during plant domestication. Specifically, we are rethinking domestication and focusing on an ecological approach. I maintain paleoethnobotanical studies at sites across Eurasia from Mongolia to Turkmenistan, as well as in East Asia, Europe, and North America.

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RESEARCH POSITIONS & FELLOWSHIPS

ACADEMIC POSITIONS

Independent Research Group Leader, W2 Status Domestication and Anthropogenic Evolution Max Planck Institute for Geoanthropology	2022 – Present
Head of the ERC-Funded Research Group Fruits of Eurasia: Domestication and Dispersal Project (FEDD) Max Planck Institute for Geoanthropology	2022 – Present
Co-Head of the Arcadia-Fund Research Group Mongolian Archaeological Project: Surveying the Steppe (MAPSS) Max Planck Institute for Geoanthropology	2020 – Present
Paleoethnobotany Laboratories Director Max Planck Institute for the Science of Human History	2016 – Present
Head of the Archaeobotany Research Group Max Planck Institute for the Science of Human History	2016 - 2022
Visiting Research Scholar Institute for the Study of the Ancient World, New York University	2016 - 2017
Adjunct Instructor, Campaign Management School of Professional Studies, New York University	2017 - 2017
Volkswagen and Mellon Foundations Postdoctoral Fellow German Institute of Archaeology, Humanities, Eurasian Branch	2014 - 2016
Affiliated Researcher Free University Berlin, Department of Paleontology, Geosciences Division	2014 - 2015
Faculty Assistant and Teaching Instructor Department of Anthropology, Washington University in St. Louis	2014 - 2014
Research Associate in Anthropological Archaeology Department of Anthropology, Washington University in St. Louis	2013 - 2017

RESEARCH POSITIONS & FELLOWSHIPS

PROFESSIONAL PREPARATION

Habilitation in Archaeology Friedrich-Schiller University, Jena, Germany	2022 – Present
Ph.D. in Anthropology Washington University, St. Louis, MO	2013
M.A. in Anthropology Washington University, St. Louis, MO	2008
Accelerated Russian Language Program Middlebury College, Middlebury, VT	2008
B.A. in Anthropology University at Buffalo, Buffalo, NY	2006



BOOKS (SINGLE AUTHOR)

In Prep	<i>The Rise and Decline of Inner Asia</i> . Over 2/3 drafted with an expected submission date of November 2025
In Prep	<i>The Rise of Humanity</i> . Over 2/3 drafted with an expected submission date of November 2024
In Press	Domesticating Earth: The Origins of Agriculture Debates. University of California Press: Berkeley.
2019	<i>Fruit from the Sands: The Silk Road Origins of the Food We Eat.</i> University of California Press: Berkeley.

JOURNAL ARTICLES

Spengler, Robert N., III, and Daniel Fuks (In Prep) Wittfogel to Watson: Rethinking the role of Central Asia in grand narratives; Special Edition: First millennium CE crop diffusion in the Middle East and Mediterranean. *Current Anthropology*.

Peters, Carli; Sören Stark; Kristine K. Richter; Basira Mir-Makhamad; Farhad Maksudov; Mirzaakhmedov Sirojidin; Rahmonov Husniddin; Shevan Wilkin; Stefanie Schirmer; Kseniia Ashastina; Alisher Begmatov; Michael Frachetti; Sharof Kurbanov; Michael Shenkar; Taylor Hermes; Fiona Kidd; Xinying Zhou; Andrey Omelchenko; Barbara Huber; Nicole Boivin; Shujing Wang; Pavel Lurje; Madelynn von Baeyer; Rita Dal Martello; and Robert N. Spengler III (In Review) When Did the Chicken Cross the Road: Archaeological and molecular evidence for ancient chickens in Central Asia. *Scientific Reports*.

Tang, Li, Shevan Wilkin, Kristine Korzow Richter, Madeleine Bleasdale, Xinzhou Chen, Zhujun Chen, Ricardo Fernandes, Yuanhong He, Shuai Li, Michael Petraglia, Ashley Scott, Yang Tsho, Fallen Teoh, Tinlei TseRing, Lin Xi, Haibin Yuan, Yan Tong, Zhengwei Zhang, Patrick Roberts, Wei He, Robert Spengler, Hongliang Lu, Shargan Wangdue, and Nicole Boivin (In Review) Dairying supported prehistoric occupation of the highland Tibetan Plateau. *Nature: Ecology and Evolution*.

Ventresca Miller, A. R., S. Wilkin, R. Smithers, K. Larson, R. Spengler, A. Haruda, N. Kradin, B. Bazarov, D. Miyagashev, Ts. Odbaatar, Ts. Turbat, Y. Zhambaltarova, V. Konev, P. Konovalov, J. Bayarsaikhan, B. Miller, A. Hein, P. Hommel, J. Williams, R. Fernandes, A. Nayak, N. Vanwezer, N. Boivin, and P. Roberts (In Review) Adaptability of millets and landscapes: Ancient cultivation in North-Central Asia. *PNAS*.

Spengler, Robert N III (In Press) Response to: A Posthumanist Approach to the Origin of Rice Agriculture in Southern China, by Jiajing Wang. *Current Anthropology*.

Zhou, Xinying, Robert N Spengler III, Sayfullaev Bahediyoh, Khasanov Mutalibjon, Jia Ma, Junchi Liu; Hui Shen, Keliang Zhao, Guanhan Chen, Thomas A Stidham, Hai Xu, Guilin Zhang, Qingjiang Yan, Yemao Hou, Jiacheng Ma, Yige Bao, Qambarov Nasibillo, Hongen Jiang, Farhod Maksudov, Steven Goldstein, Jianxin Wang, Dorian Fuller, and Xiaoqiang Li (In Press) Expanding the Range of Early Holocene Cereal Foragers into Central Asia. *Nature: Ecology and Evolution*.

Spengler, Robert N., III, Frank Kienast, Patrick Roberts, Nicole Boivin, David R. Begun, Kseniia Ashastina, and Michael Petraglia (2023) <u>Bearing Fruit: Miocene Apes and Rosaceous Fruit Evolution</u>. *Biological Theory.* 18, 134–151.

Mir-Makhamad, Basira, and Robert N. Spengler III (2023) <u>Testing the applicability of Watson's Green</u> <u>Revolution concept in first millennium CE Central Asia</u>. *Vegetation History and Archaeobotany*.

Von Baeyer, Madelynn, Timothy J. Tangbarger, and Robert N. Spengler III (2022) <u>Loss of</u> <u>Reproductive Organ Separation Zones as Adaptation to Anthropogenic Seed-Dispersal-Based</u> <u>Mutualism</u>. *Annual Plant Reviews*. 5(4).

Billings, Traci N., Barbara Cerasetti, Luca Forni, Roberto Arciero, Rita Dal Martello, Marialetizia Carra, Lynne M. Rouse, Nicole Boivin, and Robert N. Spengler III (2022) <u>Agriculture in the Karakum:</u> <u>An archaeobotanical analysis from Togolok 1, southern Turkmenistan (ca. 2300-1700 B.C.)</u>. *Frontiers in Ecology and Evolution*. 10.

Spengler, Robert N., III (2022) <u>Insularity and Early Domestication: Anthropogenic ecosystems as</u> habitat islands. *OIKOS*. 2022(12), e09549.

Chang, Claudia, Sergeo Sergievich Ivanov, Perry Alan, Tourtellotte, Robert N. Spengler III, Basira Mir-Makhamad, and David Kramar (2022) <u>Ancient agricultural and pastoral landscapes on the south side of Lake Issyk-Kul: Preliminary surveys of the Juuku Valley and Lower Kizil Suu Valley, archaeobotanical results of three stratigraphic profiles, and GIS modeling of Iron Age in Lower Kizil Suu. *Lands.* 11(6), 902.</u>

Mir-Makhamad, Basira, Rasmus Bjørn, Sören Stark, and Robert N. Spengler (2022) <u>Pistachio (*Pistacia* vera L.) Domestication and Dispersal Out of Central Asia</u>. *Agronomy*. 12(8), 1758.

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Schneider, S.V., K. A. Ashastina, S. Alisher kyzy, N. Saifuloev, G.A. Zakabluk, A.A. Chernonosov, R. Spengler, and L.V. Zotkina (2021) <u>Результаты Комплексного Исследования Памятника Куртеке</u> (Восточный Памир) (Results of a Comprehensive Study of the Kurteke Monument (Eastern Pamir)), *Теория и практика археологических исследований (Theory and Practice of Archaeological Research)* 33(4), 284-296.

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Taylor, William T. T., Mélanie Pruvost, Cosimo Posth, William Rendu, Maciej T. Krajcarz, Aida Abdykanova, Greta Brancaleoni, Robert Spengler, Taylor Hermes, Stéphanie Schiavinato, Gregory Hodgins, Raphaela Stahl, Jina Min, Saltanat Alisher kyzy, Stanisław Fedorowicz, Ludovic Orlando, Katerina Douka, Andrey Krivoshapkin, Choongwon Jeong, Christina Warinner, and Svetlana Shnaider (2021) Evidence for early dispersal of domestic sheep into Central Asia. *Nature: Human Behavior.* 5, 1169–1179.

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Mueller, Natalie G. Robert N Spengler III, Ashley Glenn, and Kunsang Lama (2020) <u>Bison</u>, <u>anthropogenic fire</u>, and the origins of agriculture in eastern North America</u>. *The Anthropocene Review*. (Special Issue), 1-18.

Stark, Sören, Fiona J. Kidd, Jamal K. Mirzaakhmedov, Shujing Wang, Robert N. Spengler III, Siroj J. Mirzaakhmedov, Zachary Silvia, Silvia Pozzi, Husniddin Rakhmonov, Megan Sligar, and Munira Sultanova (2020) <u>The Uzbek-American Expedition in Bukhara. Preliminary Report on the Third Season (2017)</u>. *Iran.* 60(2), 149-199.

Yang, Q., X. Zhou, R. N. Spengler III, K. Zhao, J. Liu, Y. Bao, P. W. Jia, and X. Li (2020) <u>Prehistoric</u> agriculture and social structure in the southwestern Tarim Basin: Multiproxy analyses at Wupaer. *Scientific Reports*. 10(1), 14235-14246.

Wilkin, Shevan, Alicia Ventresca Miller, Bryan K. Miller, Robert N. Spengler III, William T. Taylor, Ricardo Fernandes, Richard Hagan, Madeline Bleasdale, Jana Zech, S. Ulziibayar, Erdene Myagmar, Nicole Boivin, and Patrick Roberts (2020) <u>Economic Diversification Supported the Growth of</u> <u>Mongolia's Nomadic Empires.</u> *Scientific Reports.* 10, 3916.

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Taylor, William, Julia Clark, Jamsramjav Bayarsaikhan, Tumuurbaatar Turshinjargal, Jessica Thompson Jobe, William Fitzhugh, Richard Kortum, Robert N. Spengler III, Svetlana Shnaider, Frederik Seersholm, Isaac Hart, Nicolas Case, Shevan Wilkin, Jessica Hendy, Ulrike Thuering, Bryan Miller, Alicia Ventresca Miller, Andrea Picia, Nils Vanwezer, Franziska Irmer, Samantha Brown, Aida Abdykanova, Daniel Shultz, Victoria Pham, Michael Bunee, Katerina Douka, Emily Jones, and Nicole Boivin (2020) <u>Early Pastoral Economies and Herding Transitions in Eastern Eurasia</u>. *Scientific Reports*. 10, 1001.

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Taylor, William T., Svetlana Shnaider, Robert N. Spengler III, Ludovic Orlando, Aida Aboykanova, and Andrei Krivoshapkin (2019) <u>Investigating Ancient Animal Economies and Exchange in</u> <u>Kyrgyzstan's Alay Valley</u>. *Antiquity*. 93(367), e2.

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Spengler, Robert N., III (2019) <u>Dung Burning in the Archaeobotanical Record of West Asia: Where</u> <u>are we now?</u> Special Edition Volume of *Vegetation History and Archaeobotany*. 28, 215-227.

Spengler, Robert N., III, Farhod Maksudov, Elissa Bullion, Ann Merkle, Taylor Hermes, and Michael Frachetti (2018) <u>Arboreal crops on the medieval Silk Road: Archaeobotanical studies at Tashbulak</u>. *PLoS ONE*. 13(8), e0201409.

Leipe, Christian, Stefanie Müller, Konrad Hille, Hirofumi Kato, Franziska Kobe, Mareike Schmidt, Konrad Seyffert, Robert N. Spengler III, Mayke Wagner, Andrzej W. Weber, and Pavel E. Tarasov (2018) <u>Vegetation change and human impacts on Rebun Island (Northwest Pacific) over the last 6000</u> years. *Quaternary Science Reviews*. 193, 129-144.

Doumani Dupuy, Paula, Robert N. Spengler III, and Michael Frachetti (2018) <u>Eurasian Textiles: Case</u> <u>studies in exchange during the incipient and later Silk Road periods</u>. *Quaternary International*. 468 (Part B), 228-239.

Spengler, Robert N., III, Ilaria de Nigris, Barbara Cerasetti, and Lynne M. Rouse (2018) <u>The Breadth</u> of Dietary Economy in the Central Asian Bronze Age: A case study from Adji Kui in the Murghab <u>Region of Turkmenistan</u>. *Journal of Archaeological Science: Reports*. 22, 372-381.

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Leipe, Christian, Elena A. Sergusheva, Stefanie Müller, Robert N. Spengler III, Tomasz Goslar, Hirofumi Kato, Mayke Wagner, Andrzej W. Weber, and Pavel E. Tarasov (2017) <u>Barley (*Hordeum vulgare*</u>) in the Okhotsk culture (5th-10th century AD) of northern Japan and the role of cultivated plants in hunter-gatherer economies. *PLoS ONE*. 12(3), e0174397.

Spengler, Robert N., III, Pavel Tarasov, and Mayke Wagner (2016) <u>Introduction to the Special Issue:</u> <u>'Introduction and intensification of agriculture in Central Eurasia and adjacent regions'</u>. *The Holocene*. 26, 1523-1526.

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BOOK CHAPTERS

Spengler, Robert N., III, Kseniia Ashastina, Stefanie Schirmer, Fiona J. Kidd, Shujing Wang, Sirodzh J. Mirzaakhmedov, Silvia Pozzi, Husniddin Rakhmonov, Zachary Silvia, and Sören Stark (In Review) Archaeobotanical Investigations at Bash Tepa: A Late First Millennium B.C. Fortified Site on the Edge of the Bukhara Oasis. In The Bash Tepa Site. Sören Stark and Fiona J. Kidd, eds.

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Spengler, Robert N., III (2015) A review of staple economies and social integration in northeast China: Regional organization in Zhangwu, Liaoning, China, by James Williams., In *Dissertation Reviews*; Asian Archaeology.

DISSERTATION & MASTER'S THESIS

Spengler, Robert N., III (2013) *Botanical Resource Use in the Bronze and Iron Age of the Central Eurasian Mountain/Steppe Interface: Decision Making in Multi-resource Pastoral Economies*, Ph.D. Dissertation for the Anthropology Department at Washington University in St. Louis.

Spengler, Robert N. (2008) Archaeobotanical Analysis of the Begash Site: Plants as a Component of Mobile Pastoralism. St. Louis: Unpublished Master's Thesis, Available in the Anthropology Department at Washington University.

EDITORIAL ROLES

Peer-reviewer for approximately thirty (30) academic journals and granting agencies	2013 – Present
Guest Editor for the journal <i>The Holocene</i> , to assist with the production of the special edition titled "Introduction and Intensification of Agriculture in Central Eurasia and Adjacent Regions"	2014 - 2016
Honorary Lectorate awarded through the German Archaeological Institute as a branch of the Bridging Eurasia book series, for the volume titled <i>Sogdians in China: An Archaeological and Art Historical Study of Tomb Finds and Historical Texts from the 3rd to the 10th Century AD</i> by Patrick Wertman	2014 - 2015
Co-editor of the collective volume titled <i>Mobility and Ancient Society in Asia and the Americas</i> , published by Springer	2013 - 2014

GRANTS & RESEARCH DEVELOPMENT

W2 Independent Research Group, Max Planck Society, Domestication and Anthropogenic Evolution (DAE)	€2,400,000	2022 - 2026
Kangyui and Turkic Settlements of the Teris-Asa Valley, Official Advisor and Collaborator, Head P.I. Yeraly Akymbek, Kazakh Federal Funding	3,925,000 Tenge	2022 - 2025
Mongolian Archaeological Project: Surveying the Steppe (MAPSS), Arcadia Fund	€2,200,000	2021 - 2026
Fruits of Eurasia: Domestication and Dispersal (FEDD), European Research Council Starting Grant (851102)	€1,495,000	2020 - 2025
Medieval Tortkuls and the Cultural Landscape of the Talas Valley, Official Advisor and Collaborator, Head P.I. Yeraly Akymbek, Kazakh Federal Funding	3,727,696 Tenge	2020 - 2022
Anthropocene River Project, studying prehistoric impacts of the Mississippi River in collaboration with Natalie Mueller	€8,000	2018
Anthropocene River Project, studying prehistoric spread of maize in North America in collaboration with Natalie Mueller	€4,000	2018
International Applications in the Archaeological Sciences, workshop funds for training scholars from the developing world	€30,000	2018
International Applications in the Archaeological Sciences, workshop funds for training scholars from the developing world	€20,000	2017
End of year excess funds for the purchase of a Keyence digital microscope at the Max Planck Institute	€150,000	2017
Laboratory Startup Funds for the Paleoethnobotany Laboratory at the Max Planck Institute for the Science of Human History	€50,000	2017
Institute for the Study of the Ancient World, Visiting Research Scholar, Writing Fellowship	\$69,317	2016
Institute for the Study of the Ancient World, Visiting Research Scholar, Research Grant Funds	\$5,000	2016
Editorial Honorarium from the German Archaeological Institute	\$1,500	2015

GRANTS & RESEARCH DEVELOPMENT

Wenner Gren Foundation, workshop grant (Gr. CONF-673) to host "Introduction and Intensification of Agriculture in Eurasia"	\$20,000	2014
Volkswagen and Mellon Foundations, Workshopping grant for research in the humanities. Funded to host a conference in Berlin in unison with the DAI	€10,000	2014
ICARES, Iron production, urbanism, and environmental sustainability along the Medieval Silk Road: Ecological niche construction and ancient industrial development at the highland smelting center Tashbulak, Uzbekistan. P.I. Michael Frachetti	\$35,000	2014
Volkswagen and Mellon Foundations, Postdoctoral Fellow at the German Institute of Archaeology, Eurasian Branch; Volkswagen Postdoctoral Fellowships in the Humanities at Universities and Research Institutes in Germany	€50,000	2014
Editor Honorarium, for editorial work on the conference proceedings titled "Mobility and Ancient Society in Asia and the Americas"	\$4,000	2013 - 2014
Washington University in St. Louis Graduate Dissertation Writing Fellowship	\$15,000	2012 - 2013
Washington University in St. Louis Anthropology Department Summer Writing Funding Dissertation Research Improvement Funding	\$2,500 \$3,000	2011 2011
National Science Foundation, Doctoral Dissertation Improvement Grant: Plant Use and Domestic Economy among Eurasian Mobile Pastoralists: Semirech'ye, Kazakhstan during the Bronze and Iron Age Interface	\$20,000	2010
Washington University in St. Louis Anthropology Department Dissertation Research Improvement Funding	\$1,333	2010
Washington University in St. Louis Anthropology Department Summer Research Grant	\$3,000	2008
Washington University in St. Louis Stipend/Graduate Fellowship	\$15,000	2006 - 2012
S.U.N.Y., University at Buffalo, Research grant through the Advanced Honors Society	\$6,000	2005

AWARDS & HONORS

W2 Independent Research Group – DAE	2022
Arcadia Fund Grant – MAPSS	2020
European Research Council Research Grant – FEDD	2020
Archaeology Magazine's Top Ten Archaeological Discoveries of 2019	2019
Science News Favorite Science Books of 2019	2019
Gormand Award for Culinary Writing	2019
Lecture Honorarium for the Central Asian Archaeology Conference, German Archaeological Institute	2019
Lecture Honorarium for the Chinese Academy of Sciences lecture in Beijing, China	2018
Lecture Honorarium for the Friday Archaeology Lecture series in St. Louis	2015
Editorial Honorarium from the German Archaeological Institute	2015
Most downloaded dissertation of the year from Washington University	2014
Defended my dissertation with honors (equivalent to the highest honor rank in the European system)	2013
State Universities of New York Chancellor's Award for Student Excellence	2006
University at Buffalo Advanced Honors	2006
Graduated Summa Cum Laude	2006
Anthropology Honors	2006
University Dean's List every semester of undergraduate program	2006
Phi Alpha Theta National History Honor Society	2006
Lambda Alpha National Anthropology Honor Society	2004
The National Scholars Honor Society	2004
Golden Key International Honor Society	2004
Phi Eta Sigma National Honor Society	2003

FIELD EXPERIENCE

Paleoethnobotanist on the Kizil Zuu excavations in Kyrgystan (Jukuu Valley), in collaboration with the American University in Bishkek	2022
Paleoethnobotanist on the Kafir Kala excavations in Uzbekistan, in collaboration with the Institute of Archaeology in Samarkand	2022
Paleoethnobotanist on the Vardhanza excavations in Uzbekistan, in collaboration with the Institute of Archaeology in Samarkand	2022
Paleoethnobotanist on the Bukhara citadel excavations in Uzbekistan, in collaboration with the Institute of Archaeology in Samarkand	2022
Remote Paleoethnobotanist on the Bukhara citadel excavations in Uzbekistan, in collaboration with the Institute of Archaeology in Samarkand	2021
Remote Co-Director of the Bukhara citadel excavations, Archaeobotany portion, in collaboration with the Institute of Archaeology in Samarkand	2020
Director and Paleoethnobotanist of the Paykent archaeological project in Uzbekistan, a part of the Uzbek-Russia Expedition	2019
Director and Paleoethnobotanist of the Afrasiab archaeological project in Uzbekistan, excavations run through the Institute of Archaeology in Samarkand	2019
Paleoethnobotanist at the Tashbulak Medieval village site in Uzbekistan	2018
Paleoethnobotanist for a series of collaborative projects across Mongolia	2018
Paleoethnobotanist at the Bash Tepa Iron Age fortress and tell site near the Bukhara Oasis in Uzbekistan	2018
Paleoethnobotanist for the B6K Project in Swat Valley Pakistan	2017
Paleoethnobotanist at the Bash Tepa Iron Age fortress and tell site near the Bukhara Oasis in Uzbekistan	2017
Paleoethnobotanist for a series of collaborative projects across Mongolia	2017
Paleoethnobotanist at the Tashbulak Medieval village site in Uzbekistan	2017
Paleoethnobotanist at the Bash Tepa Iron Age fortress and tell site near the Bukhara Oasis in Uzbekistan	2016
Paleoethnobotanist for a series of collaborative projects across Mongolia	2016
Paleoethnobotanist at the Tashbulak Medieval village site in Uzbekistan	2016

FIELD EXPERIENCE

Paleoethnobotanist for a series of collaborative projects across Mongolia	2015
Excavator and Paleoethnobotanist at the Tashbulak Medieval village site in Uzbekistan	2015
Excavator and Paleoethnobotanist at the Mayli Kotan site in Uzbekistan	2013
Excavator and Paleoethnobotanist at the Dali and Tasbas sites in Kazakhstan	2011
Paleoethnobotanist on Turkmenistan excavations, Ojakly site	2010
Excavator and Paleoethnobotanist at Tuzusai site in Kazakhstan	2010
Surface survey on the Chengdu Plains Archaeological Survey Project in Chengdu, China	2010
Surface survey on the Chengdu Plains Archaeological Survey Project in Chengdu, China	2009
Excavator and Paleoethnobotanist at Tuzusai site in Kazakhstan	2009
Excavator in Semerich'ye, Kazakhstan at Iron Age burial site	2008
Paleoethnobotanist and Surveyor in Semerich'ye, Kazakhstan	2007
Surveyor at Rochester Museum of History Cultural Resource Management	2006
Excavator and Palynologist at Thy, Denmark, part of an international cooperative research project on Viking/Medieval settlements; studying pollen cores at Viking sites in Northern Denmark	2005
Excavator in Western New York State, Late Woodland Site through the University at Buffalo Cultural Research Management Program	2005

RESEARCH ACTIVITIES

Mongolian collaborations with the MAPSS team	2020 - Present
Bison and lost crops study in collaborations with Natalie Mueller	2019 – Present
Black bear seed dispersal and germination studies in collaboration with Kseniia Ashastina	2021 – Present
Paleoethnobotanical analysis for the southern Kazakh sites (a chain of medieval cities), in collaboration with Yeraly Akymbek	2019 – Present
Paleoethnobotanical analysis for Paykend, Uzbekistan, in collaboration with Mirzaakhmedov Sirojidin	2019 – Present
Paleoethnobotanical analysis for Vardhanza, Uzbekistan, in collaboration with Silvia Pozzi	2019 – Present
Paleoethnobotanical analysis for Kafir Kala, Uzbekistan, in collaboration with Alisher Begmatov	2019 – Present
Paleoethnobotanical analysis for Togolok, Turkmenistan, in collaboration with Barbara Cerassetti	2019 – Present
Archaeobotanical studies at the Jukuu Velley sites in collaboration with Claudia Change, Kyrgystan	2020 – Present
Paleontological and Pleistocene studies of human plant interactions across the mountains of Central Asia. Paleobotanical studies of a series of sites spanning Tajikistan and Kyrgyzstan (collaboration with Svetlanna Schnieder, Novosibirsk Institute)	2018 – Present
The Anthropocene River Project – studying the impacts of megafaunal grazers (bison) on the progenitors of the North American lost crops (collaboration with Natalie Mueller, Cornell University)	2018 - 2020
Archaeobotanical studies at the Barikot archaeological site in the Swat Valley of Northern Pakistan, excavations directed by Luca Oliviere, Bologna University	2017 – Present
Megafaunal extinctions and their impacts on the progenitors of our domesticated crops: did the loss of the world's giant mammals drive the domestication of plants	2017 - 2019
Fruits of Eurasia: Domestication and Dispersal Project (FEDD) – studying the origins and spread of fruit and nut trees in Eurasia	2016 - 2019
Paleoethnobotanical analysis for the Bash Tepa site in eastern Uzbekistan, directed by Sören Stark, in collaboration with international team of specialists	2016 - 2019

RESEARCH ACTIVITIES

Paleoethnobotanist on four separate projects in Mongolia, spanning the late Paleolithic through the Xiongnu period, directed by several different researchers	2016 - 2019
Paleoethnobotanical analysis for the Tashbulak site, dating to the Medieval period of Uzbekistan, directed by Farhad and Frachetti, in collaboration with an international team of specialists	2015 - 2019
Paleoethnobotanical analysis for the Adji Kui and Togolok Bronze Age settlement sites in Turkmenistan, directed by Barbara Cerassetti and her team from the University of Bologna, Italy	2013 - 2019
Organized and hosted the International Training Course in Scientific Methods of Archaeology in Jena, Germany	2018
Organized and hosted an international conference on the archaeology of Central Asia in Jena, Germany, titled "Breadth of Dietary Economy in Central Asian Prehistory"	2017
Organized and hosted an international conference in Berlin German through the German Institute of Archaeology, titled, "Introduction and Intensification of Agriculture in Central Eurasia: The Exception to the Rule or the Exception the Proves the Rule?"	2014
Paleoethnobotanical analysis for Vasilkovka and Krasnyi-Yar, Northern Kazakhstan (3700 – 3100 B.C.), conducted by the Carnegie Museum of Natural History and the Presidential Cultural Center of Kazakhstan	2013
Project Paleoethnobotanist for a series of different excavation projects in Mongolia conducted during the summer of 2012, 2014, and 2015, variously directed by Julia Clark, Lisa Janz, and their colleagues	2012 - 2015
Project Paleoethnobotanist for the Tasbas site in Semirech'ye, Kazakhstan, principle investigator Paula Doumani	2011 - 2015
Part of a team conducting paleoethnobotanical analyses on material from three sites in Tibet, Changuogou, Kung Lung Silver Castle, and Din Dun. The project is in collaboration with Jade d'Alpoim Guedes, Lu Hongliang, Li Yongxian, Wu Xiaohong, and Mark S. Aldenderfer	2010 - 2013
Project Paleoethnobotanist for the site of Ojakly in the Kara Kum of Turkmenistan, principal investigators Lynne Rouse and Barbara Cerasetti. Excavations at Ojakly and subsequent analyses were funded by NSF Grant No. 1036942, Wenner-Gren Grant No. 8157, the George F. Dales Foundation, and the International Research & Exchanges Board IARO Grant program. As an extension of this project, I am analyzing material from sites 1211 and 1219, excavated under the directorship of Maurizio Cattani	2010 - 2015

RESEARCH ACTIVITIES

Worked as the Project Paleoethnobotanist and excavator at the Tuzusai excavation in Kazakhstan. The excavation was conducted by the Kazakh-American Talgar Archaeological Project under the directorship of Claudia Chang. Archaeobotanical research was funded by NSF (2010-2011), Grant Number 1010678 "Doctoral Dissertation Improvement Grant: Plant Use and Domestic Economy Among Eurasian Mobile Pastoralists: Semirech'ye, Kazakhstan, during the Bronze and Iron Age Interface", PI/Co-Pi: M. Frachetti and R.N. Spengler III	2009 - 2015
Worked as part of the Dzhungar Mountains Archaeological Project during two field seasons. In the Semerich'ye region of southeastern Kazakhstan, I conducted macrobotanical studies using floatation, surface survey, and excavation. The project is directed by Michael Frachetti and is partially funded by NSF, Grant Number 0211431 "Dzhungar Mountains Archaeological Project", principal investigator Michael D. Frachetti	2007 – 2015
Studied classical and Medieval history in Rome, Italy and at the Vatican as part of an honors contract through the University at Buffalo. "Medieval Catholic Pilgrimages to Rome" a study of the early Christian practice of pilgrimages to Rome	2005
Honors Thesis - a procedural thesis showing the validity and importance of the early acetolysis techniques in modern archeology. Conducted palynological analysis on two Danish archeological sites during the summer of 2005. The sites were being excavated under the funding of NSF, Grant Number SBR-0314407, "Decentralized Societies and the Development of Secondary States", Principle Investigator Tina L. Thurston	2003 - 2006

Invited Lecture: Insularity and Ecological Release in Early Plant Domestication at the University of Faro in Faro, Portugal	2022
Invited Lecture: Rethinking Early Plant Domestication: Seed-dispersal-based mutualism at the University of Faro in Faro, Portugal	2022
Lecture: Insularity and Ecological Release in Early Plant Domestication at the International Working Group for Paleoethnobotany in Ceske Budjewiche, Czech Republic	2022
Invited lecture: Research in the Spengler Lab. London Seed Conference at the French Embacy in London, UK	2022
Invited lecture: Wittfogel to Watson: Rethinking the role of Central Asia in grand narratives, at the First millennium CE crop diffusion in the Middle East and Mediterranean conference at Cambridge.	2022
Invited lecture: Ongoing Domestication Research in my Lab, Sheffield University, UK	2022
Invited lecture: the World Expo 2020, Dubai, Fruits from the Sands	2021
Invited lecture: the World Expo 2020, Dubai, New Ideas in Domestication Studies	2021
Invited remote lecture: University College London, CAAL Program, Silk Road Lecture Series, Rethinking Central Asia as Plant Domestication Center	2021
Invited remote lecture: Durham University, Department of Archaeology, Lecture Series, Ongoing Archaeobotanical Research in Central Asia	2021
Invited remote lecture: Montpelier, Botanical Research Network, Innovative Science Lecture Series, Anthropogenic Seed Dispersal: Rethinking Plant Domestication Origins	2021
Invited remote lecture: Kashmir University, part of a special symposium organized to discuss the spread of millet through Central Asia. The Dispersal of Crops through Central Asia.	2021
Invited remote lecture: the Evolutionary Biology Department at King Abdullah University of Science and Technology. Anthropogenic Evolution Under Early Plant Cultivation	2020
Invited lecture: Nara University, Japan, to explore the potential for biomolecular methods in millet detection on ancient ceramics. Ancient Crop Dispersals Through Central Asia	2020

Invited lecture: "Beyond Walls Conference" on "The Diversity of Economic Plants in Ancient Central Asia" in Berlin, Germany	2019
Invited lecture: SAB in Jena, Germany, on the progress of research in the archaeobotany laboratories	2019
Invited lecture: Fruits of the Silk Road and discussions at the "Spread of Agriculture into Tibet and Neighboring Regions" conference at Northwest University in Xian, China	2019
Invited lecture: "Evolution of Crops under Early Cultivation" as part of the Bison Seed Dispersal Project at Washington University in St. Louis, Missouri	2019
Invited lecture: Friday Archaeology Lecture series on "Revising our Approach to Plant Domestication Studies" at Washington University in St. Louis, Missouri	2019
Invited lecture: "Origins of Agriculture in Tibet" workshop at Northwestern University in Xian, China, on "The Spread of Agriculture Across the Inner Asian Mountains."	2019
Invited lecture: Arnold Arboretum at Harvard University on the "Fruits of the Silk Road"	2019
Co-organizer: "Food Sustainability in the Ancient World" workshop at the Max Planck 2019 Institute in Jena, Germany – Co-organizer and presented and opening lecture	2019
Lecture: "Food Sustainability in the Ancient World" workshop on "The contentious links between agricultural intensification and Urbanization: The case study of the steppe empires"	2019
Lecture: "Fruits of the Silk Road: The spread of Agriculture through Central Asia" in the Silk Road series at the Institute for Vertebrate Paleontology and Paleoanthropology in Beijing, China	2019
Keynote speaker: "Spread of Agriculture along the pre-Silk Road" in the SIDRR2019: Paleoenvironmental Change and Disaster along the Silk Roads at the Beijing International Convention Center in Beijing, China	2019
Lecture: International Workgroup on Paleoethnobotany Meetings in Lecce, Italy, on the "Role of Seed Dispersal Shifts in Early Crop Domestication"	2019
Lecture: Anthropocene River Midway Meeting in St. Louis, Missouri: "Ongoing Research into Ancient Anthropogenic Changes in the American Midwest"	2019
Lecture: Frontiers of Plant Domestication Studies Session at the Society for American Archaeology Meetings in Albuquerque, New Mexico: "Shifting Seed- dispersal Mechanisms Under Early Plant Cultivation"	2019
Lecture: International Application of Archaeological Science, "Archaeobotanical Methods and Applications"	2019

Lecture: International Application of Archaeological Science, "Closing Remarks"	2019
Lecture: Chinese visiting scholar's symposium at the Max Planck Institute in Jena, Germany: "Apple Domestication and Dispersal: Megafaunal Drivers"	2018
Lecture: "Millets of Ancient Eurasia" Symposium at the Max Planck Institute in Jena, Germany: "Millets were not the only crop grown in ancient Central Asia"	2018
Lecture: European Association of Archaeologists, Barcelona, Spain, session: "Farming Under the Crescent Moon: Agriculture in the medieval Islamic world," "Archaeobotanical Studies at the Tashbulak Archaeological Site during the Qarakhanid Period"	2018
Lecture: European Association of Archaeologists, Barcelona, Spain, session: "Water Management in Ancient Central Asia" "Using Archaeobotanical Data to Discuss Irrigation Systems in Ancient Central Asia"	2018
Lecture: Conference of the Society for East Asian Archaeology, Nanjing, China, "Archaeobotany of the Silk Road"	2018
Discussant: Conference of the Society for East Asian Archaeology, Nanjing, China, "Stretching North East Asian Prehistory: Integrating Linguistics and Genetics with Archaeology"	2018
Lecture: the Comparative Pathways to Agriculture Symposium 2018; "Early Arboriculture in Eurasia" Sponsored by the ComPAg ERC project and the Domestication, Human Niche Construction and the Anthropocene Research Network of the UCL Institute of Archaeology. University College London.	2018
Lecture: International Congress on Archaeology of the Ancient Near East (ICAANE), session: "Redefining Interaction and Mobility in Prehistoric southern Central Asian Archaeology," "Archaeobotany of the Silk Road"	2018
Lecture: International Application of Archaeological Science, "Archaeobotanical Methods and Applications"	2018
Lecture: International Application of Archaeological Science, "Closing Remarks"	2018
Invited lecture: The Oxford Centre for Asian Archaeology, Art & Culture School of Archaeology, University of Oxford, "Fruits of the Silk Road"	2018
Invited lecture: The Oxford Centre for Asian Archaeology, Art & Culture School of Archaeology, University of Oxford, "How Nomadic were the Eurasian Nomads?"	2018
Invited lecture: Paleontology Department at Free University Berlin, "Ongoing Research and Laboratory Facilities at the Jena Max Planck Branch"	2017
Lecture: Central Asia Workshop that I co-organized for the Max Planck Institute for the science of Human History, Jena, Germany "Breadth of Dietary Economy in Central Asian Prehistory"	2017

Invited lecture: Graduate School "Human Development in Landscapes" and the CRC 1266 "Scales of transformation" Lecture Series at Kiel University, "Millet Dispersal"	2017
Invited lecture: Friends of the Archaeological Institute of America, New York Branch, "Fruits of the Silk Road", New York City	2017
Invited lecture: Critical Topics Lecture Series through the Global Issues program at the New York University of Professional Studies, "Fruits of the Silk Road", New York City	2017
Lecture: Society for American Archaeology Meetings, <i>Chenopodium</i> Session, <i>"Chenopodium</i> Seeds in the Archaeobotanical Record of Inner Asia", Vancouver, Canada	2017
Lecture: Society for American Archaeology Meetings, Fryxell Award Session Honoring Naomi Miller, "Revisiting the Topic of Dung Burning in the Archaeobotanical Record of Central Asia", Vancouver, Canada	2017
Invited lecture: Max Planck Institute for the Science of Human History, "Eurasian Agriculture Spread", Jena, Germany	2017
Invited lecture: The Archaeological Institute of America, Westchester Society, "Fruits of the Silk Road", Westchester, New York	2017
Invited lecture: Institute for the Study of the Ancient World, New York University, Lecture Series. "Fruits of the Silk Road: The spread of agriculture through Central Asia", New York City	2016
Lecture: New York University, invited by Sören Stark, "Looking Back to the Origins of the Silk Road"	2016
Lecture: Friday Archaeology Lecture Series at Washington University. "Anthropogenic Landscapes of Prehistoric Central Eurasia: Archaeobotanical studies of agricultural niche construction"	2015
Lecture: opening and closing talks at the international conference on the "Introduction and Intensification of Agriculture in Central Eurasia", held at the German Archaeological Institute in Berlin, Germany	2015
Lecture: Turkmenistan Ministry of Culture's conference on "Paleoethnobotanical Methods for the Study of Early Agriculture and Cuisine in the Prehistory of Central Asia" in Ashgabat, Turkmenistan, "Experience of Turkmenistan in Research and Museumification of Archaeological Findings"	2014
Lecture: Geokolloquium Series in Earth Sciences at Free University, Berlin. "Spread of Agriculture into Central Eurasia and the Third Millennium B.C. Corridor of Exchange"	2014
Lecture: Society for American Archaeology Meetings, Symposium: "Contrasting Patterns of Collecting, Treatment and Use of Stems and Fiber for Crafts in Hunter- Gatherer versus Horticultural and Agropastoral Groups", Titled: Textiles as an Early Silk Road Commodity: Mobile Pastoralists in Central Asia"	2014

Lecture: Society for American Archaeology Meetings, Symposium: "Ongoing research in Eurasian archaeology", Titled: "Late Third Millennium B.C. Agriculture in the Foothills of Central Asia: A Mixing Zone for East and South Asian Crops"	2014
Lecture: Economic Botany Meetings in Plymouth, England, Titled: "Late Third Millennium B.C. Agricultural Innovations in Central Asia"	2013
Lecture: "Food Globalization in Prehistory" sessionat the International Work Group in Palaeoethnobotany Meetings, in Thessaloniki, Greece, Titled: "The Central Eurasian Corridor of Exchange and the Spread of Agriculture: Late Third and Second Millennia B.C."	2013
Lecture: Eurasian Archaeology Conference at Cornell, titled: "The End or Beginning of Nomadism: The Spread of Agriculture and Community Diversification in the Late Bronze and Early Iron Ages in Eastern Central Asia"	2012
Lecture: Society for American Archaeology Meetings, Southwest Asian Session, titled: "Ecotopes and Herd Foraging Practices in the Bronze and Iron Age, Steppe and Mountain Ecotone of Central Asia"	2012
Lecture: Friday Archaeology Lecture Series at Washington University in St. Louis, titled: "Central Eurasian Crop Corridor: Tracking the Path of Wandering Crops"	2012
Lecture: Society for American Archaeology Meetings, Eurasian Steppe Archaeology Session, Titled: "Paleoethnobotanical Studies in Eastern Kazakhstan: The Bronze and Iron Age Interface"	2011
Invited lecture: Friday Archaeology Lecture Series at Washington University in St. Louis, Titled: "Mountain Pastoralism: Working Agriculture into the Diversity of Archaeological Central Eurasian Pastoral Economies"	2011
Invited lecture: Sichuan University in Chengdu, China, Titled: "Agriculture in Bronze and Iron Age Central Asia"	2010
Invited lecture: Buffalo State College, Titled: "Plants and Mobile Pastoralists: A Case Study from Kazakhstan, during the Bronze Age"	2010
Invited lecture: International Ordos, Inner Mongolia Conference, Titled: "Plants in the Diet of Mobile Pastoralists: Begash, Kazakhstan, during the Bronze Age"	2010
Lecture: Society for American Archaeology Meetings, Eurasian Session, titled: "Plants in the Diet of Mobile Pastoralist: Semirech'ye, Kazakhstan during the Early Iron Age"	2010
Lecture: Friday Archaeology Lecture Series at Washington University in St. Louis, titled: "Floating Some Models for the Role of Agriculture: Results from a Summer of Flotation in Kazakhstan"	2009
Lecture: Friday Archaeology Lecture Series at Washington University in St. Louis, titled: "Some Food for Thought: Preliminary Results from Begash, Kazakhstan"	2008

Lecture: completed research on palynological analysis of archaeological sites in western New York and northern Denmark at the University at Buffalo Celebration of Academic Excellence	2006
Presented data from palynological analysis on archeological sites in western New York and northern Denmark at Annual Honors Research Forum	2005
Presented data from a palynological analysis of archeological sites in western New York at the University at Buffalo Celebration of Academic Excellence	2004
Presented a preliminary study of the acetolysis technique at the Annual Honors Research Forum	2004

CONFERENCE & WORKSHOP ORGANIZATION

"Food Sustainability in the Ancient World" workshop at the Max Planck Institute in Jena, Germany – Co-organizer	2019
"International Applications in Archaeological Science" workshop at the Max Planck Institute in Jena, Germany – Organizer	2019
"Breadth of Dietary Economy in Central Asian Prehistory" workshop at the Max Planck Institute in Jena, Germany – Co-organizer	2018
"International Applications in Archaeological Science" workshop at the Max Planck Institute in Jena, Germany – Organizer	2018
"Introduction and Intensification of Agriculture in Central Eurasia" workshop at the German Archaeological Institute, Berlin	2015

TEACHING EXPERIENCE

I have prepared and presented dozens of lectures on a wide range of topics over the past seven years. I have held teaching assistantship positions at Washington University in St. Louis, Free University, Berlin, and New York University. My experience includes running laboratory sessions, lecturing to undergraduates, leading seminars, advising graduate and undergraduate students in office hours, and directing methods courses in the field and in the laboratory. I have considerable experience teaching and three full courses prepared and ready to implement.

Faculty Instructor, Origins of Agriculture, Max Planck Institute for the Science of Human History, Fridriech-Schiller University	2022
Organizer and moderator of the weekly Archaeobotany discussion group, Max Planck Institute for the Science of Human History	2019
International Applications in the Archaeological Sciences, Max Planck Institute for the Science of Human History	2019
International Applications in the Archaeological Sciences, Max Planck Institute for the Science of Human History	2018
Faculty Instructor, Free University, Berlin, The Archaeology of Food in Asia: Archaeobotanical Approaches	2014
Faculty Instructor, Free University, Berlin, Ethnobotany and Paleoethnobotany: Methods and Theory	2014
Teaching Assistant, Washington University, Public Health Statistics	2014
Teaching Assistant, Washington University, Human Developmental Variation	2013
Teaching Assistant, Washington University, Brave New Crops	2012
Teaching Assistant, Washington University, Social Landscapes in Global View	2011
Teaching Assistant, Washington University, Brave New Crops	2010
Teaching Assistant, Washington University, Rich Nations and Poor Nations	2009
Teaching Assistant, Washington University, Anthropology and Public Health	2009
Teaching Assistant, Washington University, Plants and People: Ethnobotany and Paleoethnobotany	2008
Teaching Assistant, Washington University, Africa: Peoples and Cultures	2008
Teaching Assistant, Washington University, Introduction to Cultural Anthropology	2007
Teaching Assistant, Washington University, Introduction to Archaeology	2007

TEACHING EXPERIENCE

GRADUATE SUPERVISION

Traci Billings – Graduate Supervisor	2018 - Present
Basira Mir Makhamad – Graduate Supervisor	2019 - Present
Li Tang – Graduate Supervisor	2018 - Present
Barbara Huber – Graduate Supervisor	2019 - Present
Barbara Zach – Graduate Supervisor	2019 - Present

COURSES

Domesticating Earth: Nature's Greatest Success

Archaeology of Food

Ethnobotany and Paleoethnobotany: Methods and Theory

MEMBERSHIP & SERVICES

MEMBERSHIP IN SCIENTIFIC SOCIETIES

European Archaeological Association, member	2017 - Present
East Asian Archaeological, member	2017 - 2022
Economic Botany, member	2010 - 2020
Ethnobiology, member	2010 - 2020
Society for American Archaeology, member	2010 - 2020
International Workgroup for Paleoethnobotany, member	2010 - 2020

Administration and Services

Max Planck and Friedrich-Schiller University Collaborative School, Faculty	2018 – Present
International Applications in Archaeological Science, Committee Chair	2017 - 2020
Max Planck Institute for the Science of Human History Visiting Guests Organizational Committee Chair	2017 - 2020
Microfossil Laboratory, Director/Supervisor	2017 - Present
Microscopy and Scanning Electron Microscope Facilities, Director	2017 - Present
Archaeobotanical/Macrobotanical Laboratory, Director	2016 - Present
Graduate Student Committee, Member	2010 - 2013

COMMUNITY SERVICE

Order of the Arrow	
Vigil Honor Member, and volunteer Adult Advisor	2005 – Present
Chapter Ceremonial Chairman	1999 - 2005
Lodge Ceremonial Chairman	1999 - 2004
Boy Scouts of America Eagle Scout, and volunteer Assistant Leader Youth leadership roles	2003 - 2009 1996 - 2003
University at Buffalo Anthropology Club	2003 - 2004

MEMBERSHIP & SERVICES

GRADUATE ADVISORS

Michael Frachetti	Washington University, St. Louis, MO
Gayle J. Fritz	Washington University, St. Louis, MO
Fiona B. Marshall	Washington University, St. Louis, MO
T. R. Kidder	Washington University, St. Louis, MO
Claudia Chang	Sweet Briar College, Sweet Briar, VA

SECONDARY LANGUAGE PROFICIENCY

Russian Moderate reading and speaking ability

French Moderate reading ability