

Petra Vaiglova

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Education

- 2017 Ph.D. in Archaeological Science, University of Oxford, U.K.
- 2011 M.Sc. in Archaeological Science, University of Oxford, U.K. (distinction)
- 2010 B.A. Hons. in Anthropology, University of British Columbia, Canada (*summa cum laude*)

Research and teaching interests

Past human, plant, and animal interactions • Ancient agricultural management systems • Animal ritual sacrifice • Archaeological science method development • Multi-isotopic analysis (carbon, nitrogen, oxygen, strontium, sulfur)

Professional appointments

- 2019– **Postdoctoral Research Associate** (National Science Foundation), Department of Anthropology, Washington University in St. Louis, U.S.A.
- 2019– **Coordinator of the Laboratory for the Analysis of Early Food-Webs**, Department of Anthropology, Washington University in St. Louis, U.S.A.
- 2018-19 **Visiting Research Associate**, Department of Anthropology, University of Connecticut, U.S.A.
- 2017-18 **Visiting Research Associate**, Department of Geochemistry, Geological Survey of Israel, Israel
- 2017-19 **Postdoctoral Research Associate** (European Research Council), Zinman Institute of Archaeology, University of Haifa, Israel

Publications (495 citations, *h*-index=6)

REFEREED JOURNAL ARTICLES

- 2020 **Vaiglova, P.**, G. Hartman, N. Marom, A. Ayalon, M. Bar-Matthews, T. Zilberman, G. Yasur, M. Buckley, R. Bernstein, Y. Tepper, T. Erikson-Gini, L. Weissbrod, G. Bar-Oz, “Climate stability and societal decline on the margins of the Byzantine Empire”, *Nature: Scientific Reports* 10(1):1512. Open Access.
- 2020 **Vaiglova, P.**, A. Gardeisen, M. Buckley, W. Cavanagh, J. Renard, J. Lee-Thorp, A. Bogaard, “Further insight into Neolithic agricultural management at Kouphovouno, southern Greece: expanding the isotopic approach,” *Anthropological and Archaeological Sciences* 12:43.

- 2019 Nitsch, E. K., A. L. Lamb, T. H. E. Heaton, **P. Vaiglova**, R. Fraser, G. Hartman, E. Moreno-Jiménez, A. López-Piñeiro, D. Peña-Abades, A. Fairbairn, J. Eriksen, A. Bogaard, “The Preservation and interpretation of $\delta^{34}\text{S}$ values in charred archaeobotanical remains,” *Archaeometry* 61:161.
- 2018 **Vaiglova, P.**, P. Halstead, M. Pappa, S. Triantaphyllou, S. M. Valamoti, J. Evans, R. Fraser, P. Karkanias, A. Kay, J. Lee-Thorp, A. Bogaard, “Of cattle and feasts: multi-isotope investigation of animal husbandry and communal feasting at Neolithic Makriyalos, northern Greece,” *PLOS One* 13(6):e0194474. Open Access.
- 2017 Schulting, R. J., **P. Vaiglova**, R. Crozier, P. J. Reimer, “Further isotopic evidence for seaweed-eating sheep from Neolithic Orkney,” *Journal of Archaeological Science Reports* 11:463.
- 2014 **Vaiglova, P.**, C. Snoeck, E. Nitsch, A. Bogaard, J. Lee-Thorp, “Impact of contamination and pre-treatment on stable carbon and nitrogen isotopic composition of charred plant remains,” *Rapid Communications in Mass Spectrometry* 28:2497. Open Access.
- 2014 Bogaard, A., E. Henton, J. A. Evans, K. C. Twiss, M. P. Charles, **P. Vaiglova**, N. Russell, “Locating land use at Neolithic Çatalhöyük, Turkey: the implications of $^{87}\text{Sr}/^{86}\text{Sr}$ signatures in plants and sheep tooth sequences,” *Archaeometry* 56:860.
- 2014 **Vaiglova, P.**, A. Bogaard, M. Collins, W. Cavanagh, C. Mee, J. Renard, A. Lamb, A. Gardeisen, R. Fraser, “An integrated stable isotope study of plants and animals from Kouphovouno, southern Greece: a new look at Neolithic farming,” *Journal of Archaeological Science* 42:201.
- 2013 Bogaard, A., R. Fraser, T. H. E. Heaton, M. Wallace, **P. Vaiglova**, M. Charles, G. Jones, R. P. Evershed, A. K. Styring, N. H. Andersen, R.-M. Arbogast, L. Bartosiewicz, A. Gardeisen, M. Kanstrup, U. Maier, E. Marinova, L. Ninov, M. Schäfer, E. Stephan, “Crop manuring and intensive land management by Europe’s first farmers,” *Proceedings of the National Academy of Sciences* 110:12589. Open Access.

BOOK CHAPTERS IN PRESS

- in press Bogaard, A., M. Charles, D. Filipovic, D. Q Fuller, L. Gonzalez Carretero, L. Green, C. Kabukcu, E. Stroud, **P. Vaiglova**, “The archaeobotany of Çatalhöyük: analysis of 2009-2017 material and synthesis of the whole assemblage,” in: *Humans and environments of Çatalhöyük: reports from the 2009-2017 seasons*, edited by I. Hodder. Los Angeles: Monographs of the Cotsen Institute of Archaeology, University of California at Los Angeles.

CONFERENCE PROCEEDINGS CHAPTERS

- 2017 Coleman, J. E., E. Karimali, L. Karali, M. Fillios, C. Diffey, **P. Vaiglova**, A. Bogaard, Y. Joos, E. Angeli, “The environment and interactions of Neolithic Halai,” in: *Communities, Landscapes and Interaction in Neolithic Greece: Proceedings of the International Conference, Rethymno, 29-30 May, 2015*, edited by A. Sarris, E. Kalogiropoulou, T. Kalayci, L. Karimali. Ann Arbor: International Monographs in Prehistory, pp.96–124.
- 2017 Cavanagh, W., J. Renard, A. Bogaard, A. Gardeisen, J. Cantuel, **P. Vaiglova**, C. Diffey, “Farming strategies at Kouphovouno, Lakonia, in the MN–LN periods,” in: *Communities, Landscapes and Interaction in Neolithic Greece: Proceedings of the International Conference, Rethymno, 29-30 May, 2015*, edited by A. Sarris, E. Kalogiropoulou, T. Kalayci, L. Karimali. Ann Arbor: International Monographs in Prehistory, pp.280–290.
- 2014 **Vaiglova, P.**, F. Rivals, A. Bogaard, R. Fraser, A. Gardeisen, W. Cavanagh, C. Mee, J. Renard, A. Lamb, “Interpreting ancient crop and animal management strategies at Neolithic

Kouphovouno, southern Greece: results of integrating crop and animal stable isotopes and dental micro- and mesowear,” in: *Physis: l’environnement naturel et la relation homme-milieu dans le monde égéen protohistorique: actes de la 14e Rencontre égéenne internationale, Paris, Institut National d’Histoire de l’Art (INHA), 11–14 décembre 2012*, edited by G. Touchais, R. Laffineur, F. Rougemont. Peeters, Leuven, pp. 528–537.

Grants & awards

- 2017 **Integrated Postdoctoral Fellowship**, University of Haifa • \$45,600
- 2015 **Malcolm H. Wiener Laboratory for Archaeological Science Predoctoral Research Fellowship**, American School of Classical Studies at Athens • \$40,000
- 2012 **Clarendon Fund**, University of Oxford • \$90,600
- 2014 **Natural Environmental Research Council - Isotope Geosciences Laboratory Steering Committee Studentship Grant** (PIs: Amy Bogaard and Julia Lee-Thorp) • \$11,000
- 2011 **School of Archaeology Bursary**, University of Oxford • \$11,900 (declined)
- 2011 **Edward Hall Memorial Scholarship**, Research Laboratory for Archaeology and the History of Art, University of Oxford • \$3,900 (declined)
- 2009 **Heritage Fellowship** for fieldwork expenses, American Schools of Oriental Research • \$1,000
- 2008 **Pierre Berthier Education Abroad Scholarship**, University of British Columbia • \$3,000
- 2008 **Trek Excellence Award**, University of British Columbia • \$1,000
- 2006-10 **International Leader of Tomorrow**, full scholarship, University of British Columbia • \$124,000

Current projects

- China **“Origins and spread of broomcorn and foxtail millet cultivation,”** 7th–2nd mill. cal BC (with Xinyi Liu, Michael Franchetti and Alexander Bradley, Washington University in St. Louis, U.S.A.)
- Israel **“Crisis on the margins of the Byzantine Empire”**, Byzantine/Early Islamic period (with Guy Bar-Oz, University of Haifa, Israel)
- Iran **Asiab**, Early Neolithic (with Pernille Bangsgaard, Center for GeoGenetics, Denmark; Lisa Yemonas and Tobias Richter, University of Copenhagen, Denmark; Hojjat Darabi, Razi University, Iran)
- Turkey **Tatıka**, 3rd mill. cal BC Northern Mesopotamia (with Derya Silibolatlaz-Baykara, Yuzuncu Til University; Dr Nihat Bay, Mardin Museum, Turkey)
- Greece **Kolomboi, Krania, Platania**, Classical-Hellenistic period (with Evi Margaritis, Cyprus Institute of Science, Cyprus)
- Israel **Wilson’s Arch, Western Wall Tunnels, Jerusalem**, Late Roman (with Joe Uziel and the Israeli Antiquities Authority, Israel)
- Israel **Khirbet al-Ra’i**, Iron Age, Biblical site of Ziklag (with Josef Garfinel, Hebrew University of Jerusalem, Israel; Kyle Keimer and Gil Davis, Macquarie University, Australia)

Teaching

GRADUATE LEVEL COURSES

Applications of scientific techniques in archaeology, University of Haifa, Israel (spring 2018)

UNDERGRADUATE LEVEL TUTORIALS

Biomolecular archaeology, University of Oxford, U.K. (fall 2014, spring 2015)

GUEST LECTURES

Chinese archaeology (undergraduate), Washington University in St Louis (spring 2020)

Regular Members Program (graduate), American School of Classical Studies in Athens (spring 2016, 2017)

Summer program evening lectures (high-school), Reach Cambridge (summer 2017)

MSc in Archaeological Science (graduate), University of Oxford (2013-2015)

HIGH-SCHOOL LEVEL TUTORIALS

A-levels (AP equivalent) Psychology, Greene's Tutorial College, Oxford, U.K. (fall 2011)

TEACHING TRAINING

2018–19 **Center for Excellence in Teaching and Research**, University of Connecticut

2013 **Oxford Learning Institute**, University of Oxford

Invited talks

2020 **University of Oxford**, Oxford, U.K., Archaeobotany Discussion Group, “New climate proxy for climate reconstruction in the Negev Desert, southern Israel.”

2018 **Weizmann Institute of Science**, Rehovot, Israel, Archaeology seminar series, “Exploring diversity in Neolithic farming practices on the Greek continent using multiple isotopes.”

2017 **Hebrew University of Jerusalem**, Israel, Prehistoric seminar series, “Exploring diversity in Neolithic farming practices on the Greek continent using multiple isotopes.”

2015 **Aristotle University of Thessaloniki**, Greece, School of History and Archaeology, “Preliminary results of stable isotope studies at Makriyalos, Halai and Kouphovouno.”

2014 **University of Nottingham**, U.K., Archaeological research seminar, “Growing crops and managing animals in Neolithic Greece: using stable isotopes to reconstruct ancient agricultural practices.”

2014 **University of Cambridge**, U.K., George Pitt-Rivers seminar, “Measuring and interpreting plant isotopes: ascertaining the most appropriate method of pre-treatment and reconstructing agricultural management in Neolithic Greece.”

Dissemination and Networking Activities

CONFERENCE PRESENTATIONS

- 2020 **Vaiglova, P.**, G. Hartman, G. Bar-Oz, “Climate stability and societal decline on the margins of the Byzantine Empire in the Negev Desert,” 85th Annual Meeting of the Society for American Archaeology, 22-26 April, Austin, U.S.A.
- 2019 **Vaiglova, P.**, Y. Sun, X. Liu “Tracing the spread of barley and wheat water management in East Asia using isotopic analyses of archaeobotanical plant remains,” International Symposium of Paleoethnobotanical Discoveries and Studies of East Asia, Northwest University, 16-19 December, Xi’an, China.
- 2019 **Vaiglova, P.**, G. Hartman, J. Uziel, T. Lieberman, L. Perry Gal, S. Assefa, E. Rehman, X. Liu, “Isotopic investigation of meat provisioning in Late Roman Jerusalem during time of political and religious transformation,” Annual Meeting of the American School of Oriental Research, 20-23 November, San Diego, U.S.A.
- 2019 **Vaiglova, P.** “Cattle for the feast: using multiple isotopes to understand Neolithic management of animals at Makriyalos, northern Greece,” 8th Annual Midwest Geobiology Conference, 20-21 September, St. Louis, U.S.A.
- 2019 Bogaard, A., M. Charles, M. Ergun. A. Fairbairn, D. Filipovic, D. Fuller, L. Gonzalez Carretero, L. Green, C. Hastorf, G. Jones, C. Kabukcu, C. Lancelotti, A. Livarda, M. Madella, C. Santiago Marrero, E. Stroud, **P. Vaiglova**, “25 years of archaeobotany at Çatalhöyük: what we have learned,” 18th Conference of the International Workgroup for Paleoethnobotany, 3-9 June, Lecce, Italy.
- 2019 **Vaiglova, P.**, A. Bogaard, “The nitrogen challenge at Çatalhöyük,” 84th Annual Meeting of the Society for American Archaeology, 10-13 April, Albuquerque, U.S.A.
- 2018 **Vaiglova, P.**, G. Hartman, “Isotopic proxies for disentangling environmental and societal change in the Byzantine Negev,” 19th International Congress of Classical Archaeology, 22-26 May, Bonn/Cologne, Germany.
- 2018 **Vaiglova, P.**, A. Bogaard, P. Halstead, A. Gardeisen, J. Lee-Thorp, “Assessing diversity in animal management in northern and southern Greece using sequential tooth enamel carbonate $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ values,” 119th Annual Meeting of the American Institute of Archaeology, 4-7 January, Boston, U.S.A.
- 2017 **Vaiglova, P.**, A. Bogaard, P. Karkanas, J. Evans, P. Halstead, M. Pappa, J. Lee-Thorp, “Of cattle and feasts: using multiple isotopes to understand short- and long-term management patterns of animals consumed during feasts at Neolithic Makriyalos,” U.K. Archaeological Sciences Conference, 5-8 April, London, U.K.
- 2016 **Vaiglova, P.**, A. Bogaard, P. Karkanas, M. Pappa, “Cattle for the feast: using multiple isotopes to understand the origins and lives of cattle consumed at Late Neolithic Makriyalos,” 81st Annual Meeting of the Society for American Archaeology, 6-10 April, Orlando, U.S.A.
- 2016 **Vaiglova, P.**, E. Nitsch, “AGRICURB results: Northern Greece,” ‘Intensification’ in Late Prehistoric Western Eurasia and Beyond, workshop organized by the ERC Agricultural Origins of Urbanization Project, 1-3 April, Oxford, U.K.
- 2016 Stroud, E. **Vaiglova, P.**, L. Green, C. Diffey, “AGRICURB results: Central Anatolia,” ‘Intensification’ in Late Prehistoric Western Eurasia and Beyond, workshop organized by the ERC Agricultural Origins of Urbanization Project, 1-3 April, Oxford, U.K.
- 2015 **Vaiglova, P.**, J. Lee-Thorp, A. Bogaard, “Delving deeper into Neolithic farming using multiple isotopes,” U.K. Archaeological Sciences Conference, 8-11 April, Durham, U.K.

- 2014 **Vaiglova, P.**, C. Snoeck, E. Nitsch, A. Bogaard, J. Lee-Thorp, “Preparing charred plant material for stable isotope analysis,” 6th International Symposium for Bioarchaeology, 27-30 August, Basel, Switzerland.
- 2013 **Vaiglova, P.**, A. Bogaard, R. Fraser, A. Gardeisen, W. Cavanagh, C. Mee, J. Renard, “Agricultural management in Neolithic Kouphovouno (southern Greece): results of combining crop and animal stable isotopes,” 78th Annual Meeting of the Society for American Archaeology, 3-7 April, Honolulu, U.S.A.
- 2012 **Vaiglova, P.**, F. Rivals, A. Bogaard, R. Fraser, A. Gardeisen, W. Cavanagh, C. Mee, J. Renard, “Interpreting crop and animal management strategies at Neolithic Kouphovouno, Sparti, Greece,” 14th International Aegean Conference PHYSIS, 11-14 December, Paris, France.
- 2012 **Vaiglova, P.**, “Daily life and farming at Kouphovouno,” Graduate Archaeology Oxford Conference, 16 March, Oxford, U.K.

SESSIONS ORGANIZED

- 2020- “Trans-Atlantic Isotope Reading Group”, Online Zoom discussion meetings between isotopic specialists at Washington University in St Louis, U.S.A., Trent University, Canada, and Oxford University, U.K.
- 2019 “Challenges and future directions in plant stable isotope analysis in archaeology”, 84th Annual Meeting of the Society for American Archaeology, 10-13 April, Albuquerque, U.S.A.

CONFERENCE POSTERS

- 2016 **Vaiglova, P.**, “Farming practices in the Neolithic Aegean”, ‘Intensification’ in Late Prehistoric Western Eurasia and Beyond, workshop organized by the ERC Agricultural Origins of Urbanization Project, 1-3 April, Oxford, U.K.
- 2016 **Vaiglova, P.**, “Farming practices at Neolithic Çatalhöyük”, ‘Intensification’ in Late Prehistoric Western Eurasia and Beyond, workshop organized by the ERC Agricultural Origins of Urbanization Project, 1-3 April, Oxford, U.K.
- 2015 **Vaiglova, P.**, “Exploring the diversity in farming practices in Neolithic southeastern Europe”, Agrobiodiversity Past and Present: Ecological and Archaeological Perspectives on Traditional Farming Regimes in Morocco, 24-28 April, Chefchaouen, Morocco.
- 2013 **Vaiglova, P.**, A. Bogaard, A. Gardeisen, W. Cavanagh, C. Mee, J. Renard, “Reconstructing agricultural practice at Neolithic Kouphovouno, southern Greece, using $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ values of crop and faunal remains”, 16th International Work Group for Palaeoethnobotany Conference, 17-22 June, Thessaloniki, Greece.
- 2011 Bogaard, A., R. Fraser, M. Charles, G. Jones, M. Wallace, R. Evershed, A. Styring, E. Marinova, U. Maier, **P. Vaiglova**, T. Heaton, “Investigating the intensity of early farming through archaeobotanical crop $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ values”, UK Archaeological Sciences Conference, 15-18 September, Reading, U.K.

Departmental talks

- 2019 **Department of Anthropology**, Washington University in St. Louis, Friday archaeology seminar, “Exploring diversity in Neolithic farming practices on the Greek continent using multiple isotopes.”

- 2018 **Department of Anthropology**, University of Connecticut, Storrs, Archaeology seminar series, “Exploring diversity in Neolithic farming practices on the Greek continent using multiple isotopes.”
- 2018 **Zinman Institute of Archaeology**, University of Haifa, Prehistoric seminar series, “Exploring diversity in Neolithic farming practices on the Greek continent using multiple isotopes.”
- 2016 **American School of Classical Studies at Athens**, Fitch-Wiener laboratory seminar series, “Exploring diversity in Neolithic farming practices on the Greek continent using multiple isotopes.”
- 2015 **Research Laboratory for Archaeology and the History of Art**, University of Oxford, Bioarchaeology research group meeting, “Preliminary analysis of plant isotope variability at Çatalhöyük: what does it tell us about Neolithic land use and social cohesion?”
- 2014 **Research Laboratory for Archaeology and the History of Art**, University of Oxford, Departmental seminar, “Harvesting plant isotopes: what we can learn and what we have learned about early farming in southeastern Europe.”
- 2012 **Institute of Archaeology**, University of Oxford, Archaeobotany discussion group, “Kouphovouno and isotopes.”
- 2012 **Research Laboratory for Archaeology and the History of Art**, University of Oxford, Bioarchaeology research seminar, “Investigating the intensity of Neolithic farming at Kouphovouno, southern Greece, using stable isotopes of wild and domestic flora and fauna.”
- 2011 **Lady Margaret Hall**, University of Oxford, Ancient and modern history evening seminar, “Reconstructing past subsistence patterns.”

Research employment

- 2012 **Full-Time Research Assistant** (John Fell Fund), Research Laboratory for Archaeology and the History of Art, University of Oxford, U.K.
- 2010-11 **Part-Time Laboratory Assistant**, Baden-Powell Laboratory for Archaeobotany, University of Oxford, U.K.

Professional service

PEER REVIEW

- 2020– Journal of Anthropological Archaeology
- 2020– Journal of Environmental Archaeology
- 2019– PLOS One
- 2018– Vegetation History and Archaeobotany
- 2016– Archaeological and Anthropological Sciences
- 2014– Journal of Archaeological Science

DEPARTMENTAL SERVICE

- 2019– Started an **R Club** at the Department of Anthropology, Washington University in St. Louis, helping students and faculty using the program R for statistical analysis and visual presentation of data.
- 2013-14 **Co-convener** of the Archaeobotany discussion group, University of Oxford.

PROFESSIONAL ORGANIZATIONS COMMITTEE WORK

- 2020– Member of the **Annual Meeting Program Committee**, Society for American Archaeology.
- 2013-15 Member of the **Student Affairs Committee**, Society for American Archaeology.

FIELDWORK SUPERVISION

- 2015 **Flotation at Ur, Iraq**, excavation directed by Prof. Elisabeth Stone, Stony Brook University
- 2012 **Small finds recovery at Dar es-Soltan, Morocco**, excavation directed by Prof Nick Barton, University of Oxford
- 2010 **Flotation at Tell es-Sweyhat, Syria**, excavation directed by Dr. Michael Danti, Boston University
- 2009 **Flotation at Petra Garden and Pool Complex, Jordan**, excavation directed by Dr. Leigh-Ann Bedal, Penn State Behrend
- 2008-09 **Flotation at Bir Madkhur, Jordan**, excavation directed by Dr. Andrew Smith II, George Washington University

Other

IT SKILLS

Microsoft Office • R • LaTeX • OxCal • Filemaker Pro

LANGUAGES

English: speaking (fluent), reading (fluent), writing (fluent)

Czech: speaking (fluent), reading (fluent), writing (fluent)

French: speaking (conversational), reading (very good), writing (very good)

Arabic: beginner

Greek: beginner

Hebrew: beginner