

Dr Jennifer Bates

Department of Anthropology, University of Pennsylvania

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Born: 27 March 1989; Nationality: British

EDUCATION

- 2011-2016 **PhD**, University of Cambridge, Division of Archaeology
Title: *Social Organisation and Change in Bronze Age South Asia: a multi-proxy approach to urbanisation, deurbanisation and village life through phytolith and macrobotanical analysis.*
- 2010-2011 **MA Research Methods for Archaeology (Distinction)**, University College London, Institute of Archaeology
- 2007-2010 **MA (Hons) Archaeology and Anthropology (First Class with Distinction [1*st])** University of Cambridge

EMPLOYMENT

- 2019-present **Postdoctoral Fellow**, Department of Anthropology, University of Pennsylvania
- 2019-present **Lab Safety Co-ordinator**, Penn Paleocology Lab, University of Pennsylvania
- 2015-present **Editor**, International Journal for Student Research in Archaeology
- 2018-2019 **Postdoctoral Researcher**, Joukowsky Institute for Archaeology and the Ancient World, Brown University
- 2018-2019 **Postdoctoral Research Associate**, Institute at Brown for Environment and Society, Brown University
- 2018 **Director of Studies**, Girton College, University of Cambridge
- 2016-2018 **Research Fellow**, McDonald Institute for Archaeological Research
- 2016-2018 **Teaching Assistant**, Division of Archaeology, University of Cambridge
- 2015-2018 **Trevelyan Research Fellow**, Selwyn College, University of Cambridge
- 2016-2017 **Environmental Consultant**, phytolith analysis for Must Farm project, Historic England
- 2015-2016 **Editor**, Aşvan Project, Archaeobotany
- 2015-2016 **Environmental Consultant**, phytolith analysis for Cyrenaica Prehistory Project (Haua Fteah)
- 2014 **Research Assistant** (part-time), Seshat Project
- 2014 **Environmental Consultant** (part time), macrobotanical analysis for FRAGSUS Project

TEACHING AND RESEARCH INTERESTS

South Asia, paleoecology, Bronze Age, Neolithic, Iron Age, macrobotanical analysis, phytolith analysis, archaeological method and theory, agriculture, landscape history, political ecology, water and irrigation, climate change, anthropology and archaeology of food, diet, biodiversity, sustainability, resilience, adaptability, collapse and transformation, choice and agency.

FUNDING, ACADEMIC FELLOWSHIPS, HONORS AND AWARDS

I have received c.\$439,434 funding from a wide variety of sources and continue to apply for funding in support of my research.

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|---------|--|----------|
| Pending | New Phytologist Conference Support | pending |
| 2020 | NERC/ORADS grant for C ₁₄ dating Sarai Khola | \$15,662 |
| 2019 | Dept. of Anthropology , University of Pennsylvania workshop support | \$500 |

2019	Dept. of Anthropology , University of Pennsylvania	\$50,004
2019	Program in Early Cultures , on behalf of TrowelBlazers@Brown	\$53
2019	Program in Early Cultures , Brown University	\$220
2018	Joukowsky Post-Doctoral Fellowship , Brown University	\$95,000
2018	NERC “Taxonomic Principles and Tools in Botanical Research”	Fully funded
2017	Council for British Archaeology East	\$183
2017	Cambridge Humanities Research Grant	\$2048
2015-2018	Trevelyan Research Fellowship , Selwyn College, U. of Cambridge	\$154,285
2015	NERC/ORADS grant NF/2015/1/18 grade 7	\$2826
2015	NERC/ORADS grant NF/2015/1/17 grade 8	\$4240
2014-2015	British Academy/Leverhume Small Grant	\$8534
2014	Rouse-Ball Research Fund , University of Cambridge	\$415
2013	NERC/ORADS grant NF/2013/1/6 grade 7	\$9422
2013	Rouse-Ball Research Fund , University of Cambridge	\$443
2012	Rouse-Ball Research Fund , University of Cambridge	\$528
2012	Cambridge-India Partnership Fund	\$956
2012	Rouse-Ball Research Fund , University of Cambridge	\$956
2012	Rouse-Ball Research Fund , University of Cambridge	\$328
2012	AHRC Conference Support Fund	\$274
2012	Department of Archaeology Conference Fund , U. of Cambridge	\$409
2011-2015	AHRC PhD studentship , University of Cambridge	\$67,898
2011-2014	Trinity College Research Scholar , University of Cambridge	\$1843
2010-2011	AHRC MA Studentship , University College London	\$19,591
2010	Anglia Prize , Dept. of Archaeology, University of Cambridge	
2009-2010	Trinity College Senior Scholar , University of Cambridge	\$341
2009	Trinity College Projects Fund , University of Cambridge	\$273
2009	Department of Archaeology Fieldwork Fund , University of Cambridge	\$383
2008-2009	Trinity College Junior Scholar , University of Cambridge	\$239
2008	Trinity College Projects Fund , University of Cambridge	\$546
2007	Kitchener Scholar	\$1024

ACADEMIC PUBLICATIONS

I aim for high impact journals that allow for open access or self-archiving with my university, but also regularly publish in South Asian specific journals to ensure accessibility to data and interpretations.

*co-first authored papers – additional authors not listed.

Peer-Reviewed Monographs

Nesbitt, M., **Bates, J.**, Hillman, G., Mitchell, S.

2017. *The Archaeobotany of Aşvan, environment and cultivation in Eastern Anatolia from the Chalcolithic to the Medieval period.*

British Institute at Ankara Monograph, London.

Peer-Reviewed Journal Articles

Bates, J., Garcia-Granero, J.J., Singh, R.N., Ajithprasad, P., Petrie, C.A., Madella, M.

Under review. Shaping ‘Indusness’: food as material culture in the Indus Civilisation of South Asia. *Journal*

*of Archaeological Method and Theory.***Bates, J.**

Accepted (pending revision). *Vitis* sp., Vitaceae and Viticulture: exploring the identification of ‘grapes’ in the Indus Civilization, South Asia c.3200-1500BC. *Vegetation, History and Archaeobotany*.

Morrison, K.D., Hammer, E., Boles, O., Madella, M., Whitehouse, M., Gaillard-Lemdahl, M.-J., **Bates, J.**, Vander Linden, M., Merlo, S., Yao, A., Popova, L., Hill, A.C., et al. *

Accepted (pending revision). Mapping past human land use using archaeological data: a new classification for global land use synthesis and data harmonization. *PLoS One*.

Bates, J.

Accepted (pending revision). A Materiality Approach to Containers in the Indus Civilization. *Journal of Social Archaeology*.

Green, A.S. & **Bates, J.** et al.*

Accepted (pending revision). A global perspective on the long-term social dynamics of resilience and sustainability. *Journal of Archaeological Method and Theory*.

Bates, J.

2021. Fish Net and Line Fibers in the Indus Civilization (c.3200-1300BC): exploring the possible materials that Indus fisherfolk may have used as part of their fishing strategies. *Archaeological Research in Asia* 25.

(<https://doi.org/10.1016/j.ara.2020.100237>)

Angourakis, A., **Bates, J.** [...] Petrie, C.

2020. How to ‘downsize’ a complex society: an agent-based modelling approach to assess the resilience of Indus Civilisation settlements to past climate change. *Environmental Research Letters* 15: 115004.

(<https://doi.org/10.1088/1748-9326/abacf9>)

Bates, J.

2020. Kitchen Gardens, Wild Forage and Tree Fruits: a theory on the role of the *Zaid* season in the Indus Civilisation (c.3200-1300BC). *Archaeological Research in Asia* 21: 100175.

(doi:10.1016/j.ara.2019.100175)

Turchin, P., Whitehouse, H., François, P., Hoyer, D., Alves, A., Baines, J., Barker, D., Bartkowiak, M., **Bates, J.**, [...] Xie, L.

2020. An Introduction to Seshat: Global History Databank. *Journal of Cognitive Historiography*.

(doi:10.1558/jch.39395)

Bates, J.

2019. The Published Archaeobotanical Data from the Indus Civilisation, South Asia, c.3200-1500BC. *Journal of Open Archaeological Data* 7:5.

(<http://doi.org/10.5334/joad.57>)

Bates, J.

2019. Oilseeds, Spices and Flavours in the Indus Civilization. *Journal of Archaeological Science Reports* 24: 879–887.

(<https://doi.org/10.1016/j.jasrep.2019.02.033>)

Singh, R.N., Petrie, C.A., Alam, A., **Bates, J.** [...] Walker, J.R.

2018. Living in the hinterland: survey and excavations at Lohari Ragho 2015-2017. *Purattatva* 48:130-141

Lui, X., Lister, D., Zhao, Z., Petrie, C.A., Zeng, X., Jones, P.J., Staff, R.A., Pokharia, A.K., **Bates, J.** [...] Jones, M.K., 2017. Journey to the East: diverse routes and variable flowering times for wheat and barley *en route* to prehistoric China. *PLoS ONE* 12(11):e0187405.

(doi:10.1371/journal.pone.0187405)

Petrie, C.A. & **Bates, J.**,

2017. ‘Multi-cropping’, intercropping and adaptation to variable environments in Indus South Asia. *Journal of World Prehistory* 30(2): 81-130.

(doi:10.1007/s10963-017-9101-z)

Bates, J., Petrie, C.A., & Singh, R.N.

2017. Cereals, Calories and Change: Exploring approaches to quantification in Indus archaeobotany. *Archaeological and Anthropological Sciences* 10(7): 1703–1716.

(doi:10.1007/s12520-017-0489-2)

Petrie, C.A., Singh, R.N., French, C.A.I., Hodell, D., **Bates, J.**, [...] Tewari, R.,
2017. Adaptation to variable environments, resilience to climate change: investigating *Land, Water and Settlement* in Indus northwest India. *Current Anthropology* 58(1): 1-30.
(doi: <http://www.journals.uchicago.edu/doi/full/10.1086/690112>).

Bates, J., Petrie, C.A., Singh, R.N.
2017. Approaching Rice Domestication in South Asia: new evidence from Indus settlements in northern India. *Journal of Archaeological Science* 78: 193-201.
(doi: <http://dx.doi.org/10.1016/j.jas.2016.04.018>).

Bates, J., Singh, R.N., Petrie, C.A.
2017. Exploring Indus Crop Processing: combining phytoliths and macrobotanical analysis to consider the organisation of agriculture in northwest India c.3200-1500BC. *Vegetation History and Archaeobotany* 26(1): 25-41.
(doi:10.1007/s00334-016-0576-9).

Petrie, C.A., **Bates, J.**, Higham, T., Singh, R.N.
2016. Feeding Ancient Cities in South Asia: dating the adoption of rice, millet and tropical pulses in the Indus Civilisation. *Antiquity* 90 (354): 1489-1504.
(doi: <https://doi.org/10.15184/aqy.2016.210>).

Bates, J., & Petrie, C.A.
2016. Phytolith Analysis and the Indus Civilisation: a review. *Man and Environment* XLI(2): 32-49.

Liu, X., Lister, D.L., Zhao, Z., Staff, R.A., Jones, P.J., Zhou, L., Pokharia, A.K., Petrie, CA., Pathak, A., Lu, H., Motuzaite Matuzeviciut, G., **Bates, J.** [...] Jones, M.K.,
2016. The Virtues of Small Grain Size: potential pathways to a distinguishing feature of Asian wheats. *Quaternary International* 426: 107-119.
(doi: <http://dx.doi.org/10.1016/j.quaint.2016.02.059>).

Singh, R.N., Petrie, C.A., French, C.A.I., **Bates, J.**, Lancelotti, C., Pandey, A.K., Parikh, D., & Redhouse, D.I.,
2016. Survey and Excavations at Dabli vas Chugta, Hanumangarh District, Rajasthan, March 24-April 21, 2011. Preliminary Report for the Archaeological Survey of India, *Indian Archaeology, a Review 2010-2011* pp.75-81.

Singh, R.N., Petrie, C.A., **Bates, J.**, Jogeklar, P.P., Pandey, A.K., Parikh, D., Singh, V.K., Singh, D.P.
2013. Survey and Excavations at Bahola, Karnal District, Haryana: a preliminary report. *Bhāratī* 37:27-37.

Singh, R.N., Petrie, C.A., **Bates, J.**, Pandey, A.K., Parikh, D., Singh, D.P.
2012. Survey and Excavations at Bahola, Karnal District, Haryana: March 27 – April 17, 2012. *Manaviki* 3.2-4.1:5-11.

Singh, R.N., Petrie, C.A., French, C.A.I., **Bates, J.**, Lancelotti, C., Pandey, A.K., Parikh, D., Redhouse, D.I.
2012. Survey and Excavations at Dabli vas Chugta, Hanumangarh District, Rajasthan. *Puratattva* 42:133-147.

Bates, J.
2011. Social Organisation and Change in the Indus Civilisation, phytolith analysis of crop processing aims at Masudpur VII. *Bioscience Horizons* 4(1):1-12.

Singh, R.N., Petrie, C.A., **Bates, J.**, Pandey, A.K., Parikh, D.
Under Review. Survey and Excavations at Bahola, Karnal District, Haryana, March 27-April 17, 2012. Preliminary Report for the Archaeological Survey of India, *Indian Archaeology, a Review 2011-2012*.

Peer-Reviewed Chapters:

McCormick, F., McLaughlin, Morales, J., **Bates, J.**
In Press. *Economy, Environment and Resources*. In Malone, C., McLaughlin, R., Stoddart, S., Vella, N. (eds.) *Temple Places. Excavating cultural sustainability in prehistoric Malta. Volume 2 of Fragility and Sustainability - Studies on Early Malta, the ERC Funded Project*. Cambridge: McDonald Institute Monograph Series

Petrie, C.A., Singh, R.N., Alam, A., **Bates, J.** [...] Walker, J.R.

In Press. Living in the hinterland: progress of the *TwoRains* project in 2017 and 2018. In Lefèvre, V., Didier, A., Mutin, B. (ed.). *South Asian Archaeology 2018: man and environment in prehistoric and protohistoric South Asia, new perspectives*. Turnhout: Brepols IndicoPleustoi.

K.D. Morrison, [...] **J. Bates**, S. Reddy.

In Press. *From the Southern Neolithic to the Iron Age: a View from Kadabakele*, in: Korisettar, R., (Ed.) *Beyond Stones and More Stones*. Bengaluru: The Mythic Society.

Bates, J.

2020. *Life on the farm: how can we reconstruct past agricultural choices?* In Durgan, P. (ed.) *The Educator's Handbook for Teaching about the Ancient World*. Oxford: ArchaeoPress (Access Archaeology series). pp. 109-111.

Petrie, C.A., Parikh, D., Green, A.S., **Bates, J.**

2018. *Looking beneath the Veneer. Thoughts about Environmental and Cultural Diversity in the Indus Civilization*, in: Frenez, D., Jamison, G.M., Law, R., Vidale, M., Meadow, R. (Eds.), *Walking With the Unicorn, Social Organization and Material Culture in Ancient South Asia, Jonathan Mark Kenoyer Felicitation Volume*. Oxford: Archaeopress. pp. 453–474.

Petrie, C.A., Singh, R.N., French, C.A.I., **Bates, J.**, [...] Redhouse, D.I.

2017. *Land, Water and Settlement in northwest India 2008-2012: a review of progress*. In Lefèvre, V., Didier, A., Mutin, B. (ed.) (2017). *South Asian Archaeology 2012: man and environment in prehistoric and protohistoric South Asia, new perspectives*. Turnhout: Brepols IndicoPleustoi. Pp.243-255.

Malone, C., Stoddart, S., Ceccarelli, L., Cenciarioli, L., Duff, P., McCormick, F., Morales, J., Armstrong, S., **Bates, J.** [...] Volhard-Dearman, S.

2014. *Beyond Feasting: consumption and lifestyle amongst the invisible Etruscans*. IN Boyle, K., Rabbett, R., & Hunt, C.O. (eds.) (2014). *Living in the Landscape: essays in honour of Graeme Barker*. Cambridge: CUP. Pp.257-266.

Bates, J., Petrie, C.A., Singh, R.N.

Under Review. Living in the Hinterland of Rakhigarhi: preliminary archaeobotanical results of Sampolia Khera (MSD I) and Bhimwada Jodha (MSD VII). *Proceedings of the International Conference on Early Agro-Pastoralists in South Asia 2012, Archaeological Survey of India*.

Open Access Datasets:

Bates, J.

2019. The Published (to date October 2017) Archaeobotanical Data from the Indus Civilisation, South Asia, c.3200-1500BC. *Open Access Dataset stored in the JOAD Dataverse, Harvard Dataverse*. <https://doi.org/10.7910/DVN/WSHMAD>

Peer-Reviewed Book Reviews:

Bates, J.

2019. A Review of Fruits from the Sands:the Silk Road origins of the food you eat., by Robert Spengler. University of California Press, Oakland, California, 2019. *UCL Central Asian Archaeological Landscapes*: <https://uclcaal.org/2020/05/04/fruit-from-the-sands/> (online).

Bates, J.

2016. A Review of Palaeoethnobotanical Study of Ancient Food Crops and the Environmental Context in North-East Africa, 6000 BC – AD 200/300, by Alemseged Beldados. Oxford, BAR International Series 2706, Cambridge Monographs in African Archaeology 88, 2015. *Azania: Archaeological Research in Africa* (online)

Bates, J.

2013. A Review of Thompson, V.D. & Waggoner, J.C. (eds.) “The Archaeology and Historical Ecology of Small Scale Economies”, University Press of Florida. *Archaeological Review From Cambridge* 28.2: 216-220

TEACHING

2020	ANTH045 <i>How Our Environment Has Shaped Us</i> . Lead Instructor, University of Pennsylvania.
2020	MEDVL 1101 SEM 104 <i>Aspects of Medieval Culture: Food in the Medieval World</i> , Guest Lecture, Cornell University
2020	ANTH580 <i>Domestication</i> . Lead Instructor, University of Pennsylvania.
2019	ARCH0763 <i>The Secret History of Ancient Toilets</i> . Lead Instructor, Brown University.
2019	ARCH1670 <i>The Beginning in the End: Neolithic 'Revolutions'</i> . Guest Lecture, Brown University.
2019	ARCH0760 <i>Palaces: built to impress</i> . Guest Lecture, Brown University
2018	ARCH1492 <i>Introduction to the Indus Civilization</i> . Lead Instructor, Brown University.
2016-2018	ARC1/A1 <i>Introduction to Archaeology</i> . TA, University of Cambridge.
2016-2018	ARC7 <i>Archaeological Thought II</i> . Seminar leader, TA (Small Group Teaching), University of Cambridge.
2015-2018	G02 <i>Core Archaeology</i> . Seminar leader, University of Cambridge.
2015-2016	ARC02 <i>Archaeology in Practice</i> . Lecturer, University of Cambridge.
2015-2016	A1 <i>Introduction to Archaeology</i> . TA (Small Group Teaching), University of Cambridge.
2014-2015	A1 <i>Development of Human Society</i> . TA (Small Group Teaching), University of Cambridge.
2013-2018	ARC2 <i>Archaeology in Practice: Microscopy</i> . Practical leader, University of Cambridge.
2013-2018	ARC2 <i>Archaeology in Practice: Archaeobotany</i> . Practical leader, University of Cambridge.
2013-2014	A2 <i>Archaeology in Action: Archaeology in the lab</i> . TA (Small Group Teaching), University of Cambridge.
2013-2014	A2 <i>Archaeology in Action: Landscapes</i> . TA (Small Group Teaching), University of Cambridge.
2012-2018	A7/ARC08/G10 <i>Archaeological Science: Archaeobotany</i> . Lead Instructor, University of Cambridge.
2012-2018	Undergraduate, Masters, PhD <i>laboratory project supervision</i> . University of Cambridge.

FIELDWORK AND ANALYSIS

Projects

2019-present	LandCover6k (Global/South Asia) Co-ordinator and analyst
2019-present	Early Historic Landscapes of the Tungabhadra Corridor (India) Archaeobotanist
2017-present	Montelabate (Italy) Excavation and scientific sampling advisor
2016-present	TwoRains (India) Excavation and archaeobotanist
2015-present	Indus Borders (India and Pakistan) Principle Investigator
2015-present	Haua Fteah (Libya) (Cyrenaica Prehistory Project) Environmental consultant
2015-2016	Aşvan (Turkey) Editor for reanalysis and write-up of Aşvan monograph
2014-2015	FRAGSUS (various sites in Malta) Excavation and environmental consultant
2010-2015	Land, Water, Settlement Project (India) Excavation and archaeobotanist

Excavations

2018	Masudpur I (India) Excavation, flotation, sampling strategy
2017	Lohari Ragho I (India) Excavation, flotation, sampling strategy
2014, 2015	FRAGSUS (Malta) Excavation, flotation, sampling strategy
2012, 2013	Montelabate (Italy) Excavation, flotation, sampling strategy
2012	Bahola (India) Excavation, flotation, sampling strategy
2012	ACE Summer School (UK) Supervising outreach excavations

- 2011 **Dabli vas Chugta (India)** Excavation, flotation, sampling strategy
- 2009-2010 **Under the Ground Project Yaverland (Isle of Wight, UK)** Resistivity and magnetometry survey
- 2009 **Over (UK)** Excavation and resistivity and magnetometry survey
- 2008-2009 **Kilese Tepe (Turkey)** Excavation and flotation
- 2005 **Alfoldean (UK)** Excavator with Time Team™
- 2002-2003 **Yaverland (Isle of Wight, UK)** Field walking survey and test pit excavation

Analysis

- 2019-present **LandCover6k (Global/SouthAsia)** Data analyst
- 2019-present **Kadebakele (India)** Archaeobotanist
- 2016-2017 **Must Farm (UK)** Environmental consultant
- 2015-present **Bannu Basin Project (Pakistan)** Archaeobotanist
- 2015-present **Ganeshwar (India)** Archaeobotanist
- 2015-present **Alamgirpur (India)** Archaeobotanist
- 2015-present **Sarai Khola (Pakistan)** Archaeobotanist
- 2015-present **Haua Fteah (Libya)** (Cyrenaica Prehistory Project) Environmental consultant
- 2013 **Wandlebury (UK)** Archaeobotanist (for future isotopic analysis)
- 2013 **Isle of Rhum Deer Project (UK)** Botanist (for future isotopic analysis)
- 2013 **Avaldsnes (Norway)** Archaeobotanist
- 2012 **Origins of Weaving Project (Europe)** Archaeobotanist
- 2011 **Avaldsnes (Norway)** Archaeobotanist
- 2004-2011 **Isle of Wight County Archaeology Unit (UK)** Assistant to County Archaeologist and HER Officer
- 2004 **Isle of Wight County Archaeology Unit (UK)** Finds accessioning
- 2003 **Yaverland (Isle of Wight, UK)** Finds accessioning

ACADEMIC PRESENTATIONS AND MEETINGS

Steering Committee

- 2020 (postponed) PAGES LC6K 4th General Workshop
- 2020 (postponed) PAGES LC6K South Asia Workshop
- 2019 State of the Field, the Ancient DNA Revolution in Archaeology, JIAAW

Session Organisation

- 2017 American Anthropological Association 16th Meeting
- 2016 World Archaeology Congress 08 Kyoto

Paper Presentation

- 2021 Society for American Archaeology, Austin
- 2020 (postponed) 25th Conference of the European Association of South Asian Archaeology and Art
- 2020 (postponed) Centre for Ancient Studies (invited speaker)
- 2020 Archaeology from Home: Connecting Things and Thoughts (online)
- 2020 12th Annual Workshop on South Asian Archaeology
- 2020 Food, UPenn Anthropology Colloquium
- 2019 Annual Conference on South Asia, Madison
- 2019 International Working Group for Paleoethnobotany, Lecce

- 2019 Hacking Heritage Unconference
- 2018 47th Annual Conference on South Asia
- 2018 24th Conference of the European Association of South Asian Archaeology and Art
- 2017 Lucknow University (invited speaker)
- 2017 Joint Annual Conference of the IAS, ISPQS & IHCS, Banaras Hindu University
- 2016 World Archaeology Congress 08 Kyoto
- 2016 23rd Conference of the European Association of South Asian Archaeology and Art
- 2016 Friends of the Brading Roman Villa (invited speaker)
- 2015 Early Rice Symposium, University College London
- 2015 University of Cambridge Archaeological Field Club (invited speaker)
- 2015 Allchin Symposium on South Asian Archaeology, Durham
- 2015 XIX International Quaternary Association Congress
- 2014 Allchin Symposium on South Asian Archaeology, Cambridge
- 2014 UK Archaeological Sciences, Durham
- 2014 9th International Meeting for Phytolith Research
- 2014 22nd Conference of the European Association of South Asian Archaeology and Art
- 2014 ADG Lecture Series, University of Oxford (invited speaker)
- 2014 Asian Archaeology Group, University of Cambridge (invited speaker)
- 2014 Material Culture Lab/African Archaeology Group, University of Cambridge (invited speaker)
- 2014 S3ET ICREA Conference, Barcelona
- 2013 Allchin Symposium on South Asian Archaeology, Cambridge
- 2013 Current Research in Phytolith Analysis Workshop, CSIC-IMF, Barcelona
- 2013 UK Archaeological Sciences, Cardiff
- 2013 ADG Lecture Series, University of Oxford (invited speaker)
- 2013 Millets: a past, present and future solution to food security challenges Workshop (invited delegate)
- 2013 16th Conference of the International Workgroup for Palaeoethnobotany
- 2013 Frontiers of European Iron Age Conference
- 2012 International Conference on Early Agro-Pastoral Cultures of South Asia (invited speaker)
- 2012 21st Conference of the European Association of South Asian Archaeology and Art
- 2012 21st Conference of the European Association of South Asian Archaeology and Art
- 2011 Asian Archaeology Group, University of Cambridge (invited speaker)

PROFESSIONAL AFFILIATIONS

American Anthropological Association, European Association for South Asian Archaeology and Art, Indian Society for Prehistoric and Quaternary Studies, International Phytolith Society, Quaternary Research Association, Society for American Archaeology, World Archaeology Congress

MUSEUM/ART EXHIBITIONS

- 2021 “Beyond the Visible” A special exhibit on scientific imaging in the Merle-Smith Gallery of the Penn Museum organised by Marie-Claude Boileau of CAAM. Images of phytoliths provided from the Penn Paleoecology Lab to illustrate both the scientific value of microbotany and the artistry of archaeological science.
- 2019 “Hidden Voices” An installation and outreach project exploring the archaeological contributions of women, people of colour and minority groups. Displayed throughout the Joukowsky Institute as part of the ongoing Trowel Blazers initiative.

- 2019 “Secret History of Ancient Toilets” An installation of posters at the Joukowsky Institute, funded by the Program in Early Cultures.
- 2019 “Ancient Rice in South Asia” An art installation at the annual MIT Water Night event
- 2018-2019 “Seals and Figurines – exploring the production of identity in the Indus Civilization” An exhibition of objects made during class (ARCH1492, Introduction to the Indus Civilization) at the Joukowsky Institute for Archaeology and the Ancient World, Brown University. Co-curated with students from ARCH1492.

SERVICE AND PROFESSIONAL DEVELOPMENT

- 2019-present Lab Safety Co-ordinator, Penn Paleoecology Lab, University of Pennsylvania
- 2019 Presentations and support at the Graduate Prospective event, JIAAW, Brown University
- 2019 Running a field project professionalisation event, JIAAW, Brown University
- 2019 Conference preparation professionalisation event, JIAAW, Brown University
- 2018 Natural Environments Research Council (NERC) fully funded “Taxonomic Principles and Tools in Botanical Research” course
- 2018 Title IX training, Brown University
- 2018-2019 Mentor for PhD students at the Joukowsky Institute, Brown University
- 2018 Director of Studies in Archaeology and Human, Social and Political Science, University of Cambridge
- 2017 Prevent training, University of Cambridge
- 2015-present Editor for *International Journal of Student Research in Archaeology*
- 2015-2018 Admissions interviewer for Undergraduate degrees in Archaeology and Anthropology, and Human, Social and Political Sciences (HSPS) at Selwyn College, University of Cambridge
- 2016-2018 Post-Doctoral Committee Secretary, Division of Archaeology, University of Cambridge
- 2016-2018 Selwyn College Buildings and Maintenance Committee, University of Cambridge
- 2015-2018 Selwyn College Gardens Committee, University of Cambridge
- 2015-2018 Selwyn College Governing Body, University of Cambridge
- 2015-2018 Archaeobotanical Lab Group organiser, Division of Archaeology, University of Cambridge
- 2015-2016 Post-Doctoral Divisional Representative, Division of Archaeology, University of Cambridge
- 2016-2016 McDonald Seminar Series organiser, University of Cambridge
- 2012 Phytolith training with Prof. M. Madella & Dr C. Lancelotti, Universitat Pompeu Fabra, Barcelona.
- 2012-2018 Departmental and Divisional TA and Supervisor (small group teaching)
- 2012-2014 Asian Archaeology Group Seminar Series organiser, University of Cambridge
- 2012-2013 George Pitt Rivers Laboratory Seminar Series organiser, University of Cambridge
- 2012-2013 University of Cambridge Archaeological Field Club Graduate Liaison and Events Officer
- 2009-2010 University of Cambridge Archaeological Field Club Practicals Officer
- 2008-2013 Personal Histories Project volunteer/organisation team
- 2008-2009 Part I Representative, Department of Archaeology, University of Cambridge
- 2006-2011 Assistant to Isle of Wight County Archaeologist and Historic Environment Records Officer
- 2005-2007 Assistant for Isle of Wight Young Archaeologists Club

Journal Reviewer

Anatolian Studies, Archaeological and Anthropological Sciences, Cambridge University Press, *Frontiers in Plant Science*, *Geoarchaeology*, *The Holocene*, *International Journal of Student Research in Archaeology*, *Iran*, *Journal of*

Archaeological Research, Journal of Archaeological Science, Journal of Ethnobiology; Journal of Open Archaeological Data; Routledge, Scientific Reports (Nature)

Advisory Editorial Board

International Journal of Student Research in Archaeology

PUBLIC OUTREACH AND ENGAGEMENT

Websites

Personal: <http://web.sas.upenn.edu/jenbates/>

Lab (editor): <http://web.sas.upenn.edu/pennpaleoecology/>

Twitter

Personal: @drjenniferbates

Lab (editor): @PPaleoecology

501st Garrison Carida – a charitable group (PR officer): @GarrisonCarida

Rebel Legion Ghost Base – a charitable group: Base Membership Officer

- 2020 Million Women in STEM
- 2020 BYU Radio ‘Constant Wonder’
- 2020 National Geographic article interview ‘What Did People Do before Toilet Paper’
- 2019 PBS show ‘First Civilisations’, Episode 4 *Trade* – TwoRains project and excavations featured
- 2019 TrowelBlazers@Brown organizer and representative
- 2019 Brown Alumni magazine interview on ARCH0763 course
- 2019 “Brains On!” Podcast for America Public Media on Indus toilets and sanitation
- 2019 “Ancient Rice in South Asia” An art installation at the annual MIT Water Night event
- 2018 AIA International Archaeology Day, Brown University
- 2016 Newspaper articles (Daily Mail, Evening Standard, Metro, Times of India, Telegraph India)
- 2016 “I’m a Scientist, get me out of here!”
- 2016 Interview on Cambridge TV about role in “I’m a Scientist, get me out of here!”
- 2016 Interview practice for Selwyn Schools Liaison
- 2016 Pre-university residential talk on university options, Selwyn College, University of Cambridge
- 2016 Talk for Friends of Brading Roman Villa
- 2016 School talk (ages 10-18 years) and artefact handling day, Priory School, Isle of Wight
- 2016 University application advice session for pre-university students, Priory School, Isle of Wight
- 2013 Participated in Slate.com article “The Mystery of Curry” by A. Lawler
- 2012 Participated in Science article “The Ingredients for a 4000-year-old Proto-Curry” by A. Lawler
- 2012 Supervisor for Association for Cultural Exchange excavations
- 2012-2018 University of Cambridge Science Days
- 2011-2018 University of Cambridge Festival of Ideas
- 2011-2018 Laboratory tours for new students, summer school students, visiting scholars and other visitors
- 2011-2018 Prehistory Day assistant
- 2011 UCL Archaeology Open Day Volunteer
- 2008-2018 University of Cambridge Archaeology Open Days

- 2008-2013 Personal Histories Project volunteer/organising committee
 2005-2006 National Archaeology Open Day volunteer, Fort Cumberland

TECHNICAL EXPERIENCE AND SKILLS

Field and Laboratory:

- Lab Safety Co-ordinator
- Lab set up, development and day-to-day running
- Environmental sampling
- Archaeobotanical sampling, lab preparation and analysis (macro- and microbotanical)
- Increasing familiarity with diatom, starch and pollen analysis
- SEM, transmitted and reflected light microscopy
- Modern and archaeological botanical reference collection development and curation
- Botanical morphometrics
- Geochemical analysis (ICP-AES)
- Microcharcoal and faecal spherulite analysis
- Geostatistics

Excavation

- Excavation experience on a range of sites with a diversity of excavation techniques
- Co-ordination of sampling strategies across range of site types and environments
- Survey (landscape and site scale) using a range of techniques
- Student supervision of excavation and specialist jobs
- Artefact sorting and accessioning post-excavation/survey
- Post-excavation analysis of remains
- Report writing

Computing:

- Office software (including database building in Access)
- SPSS, PAST, developing familiarity with R
- Web design and management
- BioRender, CorelDRAW and PhotoShop
- Google Earth interactive map building and QGIS/ArcGIS map building

RESEARCH PROJECTS

Current

SPACE – exploring the spatial activity areas of Indus houses (data preparation stage)

Indus Borders Project – exploring the impact of social interaction on the edges of the Indus Civilization (publication stage)

TwoRains & EHLTC – project collaborator (multi-proxy: phytoliths, faecal spherulites, geochemistry and microcharcoal)

LC6k – co-ordinator and data analyst (publication and map creation dependant on sub-group)

Current – student

Morphometrics of wheat and barley – supervision of student project (publication stage)

Phytoliths and geoarchaeology of Early Historic Burj – supervision of student project (publication stage)

Future – student

Mud Brick Recipes – the impact of environment and social choices on building materials

Future – five year plans (with two-year pilot study)

Origins of Rice in South Asia

Ash Mound – the seasonality, monumentality and functionality of Southern Indian dung tells.

REFEREES

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