

Dr David Smith MA (Cambridge), MA, PhD (Sheffield), FRES

Senior Lecturer in Environmental Archaeology

[Classics, Ancient History and Archaeology \(/schools/historycultures/departments/caha/index.aspx\)](/schools/historycultures/departments/caha/index.aspx)

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About

David Smith's main research interests concern the interpretation of insect remains from the archaeological record. These are used to investigate landscape and landuse change as well as living conditions in archaeological settlements. He also undertakes commercial consultancy on insect remains from a range of archaeological sites.

David is also the welfare tutor for the Birmingham International Academy.

Qualifications

David Smith has a MA in Archaeology and Anthropology, and MA in Environmental Archaeology and Palaeoeconomy and a PhD in archaeoentomology.

Biography

David Smith read Archaeology at Cambridge University and went on to train in Environmental Archaeology and Palaeoeconomy at the University of Sheffield, where he specialized in the study of insect remains for both his M.A. and his PhD. David joined the Department of Ancient History and Archeology at the University of Birmingham in 1992.

Teaching

Undergraduate

First year

- British archaeology
- Aztecs

Second/third year

- Humans and Environments (core course)
- Environmental archaeology in the Lab (option)
- Early Agriculture (seminar)

Postgraduate supervision

Past PhD students supervised by David have worked on analogue studies of the plants and insects from hay meadows (with Dr. Pam Grinter) and the Palaeoentomology of estuarine deposits at Goldcliff, Gwent (with Dr. Emma Tetlow).

Current PhD candidates David is supervising include Kevin Colls and Geoff Hill (jointly with Dr. Nicki Whitehouse, Queen's University, Belfast). Kevin is researching the archaeology and cultural heritage of the Scottish island of Harris. Geoff is researching a range of modern sites to act as analogues for ancient woodland.

David is available to supervise students with an interest in archaeological insect faunas, the development of past landscapes and past economies.

Research

At present David is working on:

Past distribution of grain pests in Britain

In collaboration with Harry Kenward (University of York), we have been reviewing the past distribution of the grain pests in Britain in order understand the extent to which they presented a continuous problem for Roman agriculture and why?

Palaeoentomology of urban settlement in London, the Midlands and East Anglia

David has been working closely with the Museum of London since the early 1990s. Recently AHRC funded a sabbatical in order to prepare a review of past insect faunas from London. This data has been compared with results from a range of Roman and Medieval settlement deposits in Winchester, Birmingham and Bristol, which David has also studied.

Early Holocene woodlands

In collaboration with Nicky Whitehouse (Queen's University Belfast) and funded by NERC, we are reviving early Holocene insect faunas to see if they shed light on the structure of the 'wildwood' in light of the 'Vera Hypothesis' – that early woodlands contained more open areas than previously thought. We are undertaking a range of modern analogue studies in order to assess the extent that insect remains from the archaeological reliably reflect the density of woodland in the environment.

Modern Analogues for the archaeological record

David has always investigated the role of modern insect faunas to act as analogues for the past. Previous work has centred on roofing thatch, stabling materials and fodder. More recent projects have begun to investigate if there is a close fit between 'suites' of dung beetles and large herbivores.

Commercial archaeoentomology

David has provided a commercial service for the analysis of insect remains from a range of archaeological and geological deposits since 1992. He has worked with many commercial archaeological units, as well as a number of University-based research projects, in the UK.

David also maintains an abiding interest in cess pits – which has been a rich source of research for many years for himself and colleagues at The University of Birmingham.

Previous Research

- The development of insect faunas recovered from Hebridean blackhouses and their implications for archaeological interpretation.
- The insects from intertidal peats in the Severn Estuary and how these have changed in regards to sea level and human interference during the Holocene (with Emma Paddock)
- The nature of the insects associated with thatch and smoke blackened thatch.
- The insects associated with the annual progression of hay and straw from a simple farming system and the implications for the interpretation of insect faunas from the archaeological record.
- The seasonal development of insect faunas and plant floras in modern biodiverse hay meadows. The implications of the patterns recognised from this study for the more accurate identification of 'hay' faunas and floras in the archaeological record (PhD project with Pamela Grinter)

Other activities

David is a Fellow of the Royal Entomological Society of London. He also offers a commercial consultancy and advisory service in archaeoentomology to a range of archaeological field units and providers.

David is also the Welfare and Disability officer for the Birmingham International Academy and is a trained workplace mediator.

David is an associate editor of *Environmental Archaeology: The Journal of Human Ecology*.

Publications

Books and Monographs

- Smith, D.N. 2012. *Insects in the City: An Archaeoentomological Perspective on London's Past* (British Archaeological Reports: British Series 561). Oxford: Archaeopress.
- V. Gaffney, Fitch, S. and Smith, D. 2009. *Europe's Lost World: The Rediscovery of Doggerland*. (CBA Research Report 160). London: Council for British Archaeology.

Edited volumes

- Smith D.N., Brickley, M.B. and Smith, W. 2005 (eds) *Fertile Ground: Papers in Honour of Professor Susan Limbrey*. (AEA Symposia No. 22). Oxford: Oxbow Books.

Refereed papers in academic journals

- Smith, D.N. and Kenward H.K. 2013. 'Well, Sextus what can we do with this?' The disposal and use of insect-infested grain in Roman Britain. *Environmental Archaeology*. 17, 141-150.
- Smith, D.N. 2012. Defining an 'indicator package' to allow identification of 'cess pits' in the archaeological record. *Journal of Archaeological Science*. 40. 526-543.
- Smith, D.N. and Kenward, H.K. 2011. Roman Grain Pests in Britain: Implications for Grain Supply and Agricultural Production. *Britannia*.42, 243-262.
- Smith D.N. Fletcher, M, Head K., Smith, W and Howard A.J. 2010. Environmental Reconstruction of a Later Prehistoric Palaeochannel Record from the Burrs Caravan Park, Bury, Greater Manchester. *Environmental Archaeology*. 15. 16-31.
- Whitehouse, N. and Smith D. 2010. What is "Natural"? Forest Composition, Open-ness and the British "Wildwood": implications from palaeoentomology for Holocene development and landscape structure. *Quaternary Science Reviews*. 29. 539-553.
- Smith, D.N., Whitehouse, N, Bunting, M.J. and Chapman, H. 2010. Can we characterise 'openness' in the Holocene palaeoenvironmental record? Analogue studies from Dunham Massey deer park and Epping Forest, England. *The Holocene*. 20, 215- 229.
- Smith, D.N., Gaffney, V.G., Grossman, D.,Howard, A.J., Milošević, A, Ostir, K., Podobnikar, T., Smith, W, Tetlow, E. and , Tinsley, H. 2006. Assessing the environment archaeology of the Cetina Valley, Croatia. *Environmental Archaeology* 11(2), 171–86
- Smith, D.N. Letts, J. and Jones, M. 2005. The insects from non-cereal stalk smoked blackened thatch. *Environmental Archaeology*, 10, 171–78.
- Smith, D.N., Roseff, R., Bevan, L., Brown, A.G. Butler, S, G. Hughes, A. Monckton. 2005. Archaeological and environmental investigations of a Late Glacial and Holocene river valley sequence on the River Soar, at Croft, Leicestershire. *The Holocene* 15, 353–377
- Smith, D.N. and Howard, A.J. 2004. 'Identifying changing fluvial conditions in low gradient alluvial archaeological landscapes: Can Coleoptera provide insights into changing discharge rates and floodplain evolution?' *Journal of Archaeological Science* 31, 109–20.
- Whitehouse N.J. and smith, D.N. 2004 'Islands' in Holocene forests: Implications for forest openness, landscape clearance and 'culture steppe' species. *Environmental Archaeology* 9, 203–12.

Contributions to Edited volumes

- Greenwood, M. and Smith, D.N. 2005. A survey of Coleoptera from sedimentary deposits from the Trent Valley, pp. 53–67, in Smith, D.N., Brickley, M.B. and Smith, W. (eds) *Fertile Ground: Papers in Honour of Professor Susan Limbrey*. (AEA Symposia No. 22). Oxford: Oxbow Books.
- Smith, D.N. and Whitehouse, N. 2005 Not seeing the trees for the woods: A palaeoentomological perspective on Holocene woodland composition, pp. 136–61, in Smith, D.N., Brickley, M.B. and Smith, W. (eds) *Fertile Ground: Papers in Honour of Professor Susan Limbrey*. (AEA symposia No. 22). Oxford: Oxbow Books.

Other contributions

(mainly sections in published archaeological site reports)

- Smith, D.N. 2012 'insects' pp.236-243 in Stafford, E. (ed) *Landscape and Prehistory of the East London Wetlands: Investigations along the A13 DBFO roadscheme, Tower Hamlets, Newham and Barking and Dagenham, 2000-2003* (Oxford Archaeology Monograph 17). Oxford: Oxford Archaeology Ltd.
- Smith, D.N. 2011. 'Insects from Northfleet' pp. 88–90 in Barnett, C., McKinley, J.I., Stafford, E., Grimm, J.M. and Stevens, C.J. (eds.) *Settling the Ebbsfleet Valley: High Speed 1 Excavations at Springhead and Northfleet, Kent, The late Iron Age, Roman, Saxon and Medieval Landscape (Volume 3: Late Iron Age to Roman*

- Smith, D.N. 2011 'The insect remains' pp. 559–63 in Hill, J, and Rowsome, P. (eds.) *Roman London and the Walbrook stream crossing: excavations at 1 Poultry and vicinity, City of London* (Museum of London Archaeology Service Monograph Series 37). London: Museum of London Archaeology Service.
- McKinna, R. and Smith, D.N. 2011. 'chapter 15: the Palaeo-Environmental Remains' pp. 263-274 in M. Hislop, M. Kincey and G. Williams (eds.) *Tutbury: 'a Castle Firmly Built' Archaeology and Historical Investigations at Tutbury Castle, Staffordshire*(British Archaeological Reports British Series 546). Oxford: Archaeopress.Smith, D.N. 2011.
- Smith, D.N. 2011. 'The insect remains' pp. 342 and contributions to text and CD in Burch, M, and Treveil, P, with Keene, D, *The development of early medieval and later Poultry and Cheapside: excavations at 1 Poultry and vicinity, City of London* (MoLA Monograph Series 38).
- Smith, D. 2011 '[iron age] insects' pp 171-173 in Jones, A (ed.) *Excavations at Little Paxton Quarry, Cambridgeshire, 1992 -1998* (Birmingham Archaeology Monograph Series 10/ British Archaeological Reports B 545). Oxford: British Archaeological Reports.
- Smith D. 2011 '[Romano-British] insect remains' , pp. 265-277 in Jones *Excavations at Little Paxton Quarry, Cambridgeshire, 1992 -1998* (Birmingham Archaeology Monograph Series 10/ British Archaeological Reports B 545). Oxford: British Archaeological Reports.
- Smith, D.N. 2010. 'insects' pp. 130-131 in I. Grainger and C. Philpotts (eds.) *The Royal Victualling Yard, East Smithfield, London* (Molas Monograph 45). London, Museum of London Archaeology Service.
- Smith, D.N. 2010. 'the insect remains' 921-925 plus 1481-1489 on CD in Howard-Davis. C. *The Carlisle Millennium Project: Excavations in Carlisle 1998-2001. Volume 2: The finds* (Lancaster Imprints 15). Oxford Archaeology North: Lancaster.
- Smith, D.N. 2009. *The Insect Remains from Edgbaston and Park Street*, pp. 269–75 in C. Patrick and S. Ratkai (eds) *The Ring Uncovered: Excavations at Edgbaston Street, Moor Street, Park Street and the Row*, Birmingham 1997–2001. Oxford: Oxbow Books.
- Smith, D.N. 2009. 'insect remains' pp. 134-137 in Beamish, M. (ed) *Island Visits: Neolithic and Bronze Age Activity on the Trent Valley Floor. Excavations at Eggington and Willington, Derbyshire 1998-1999. Derbyshire Archaeological Journal. 129. 17-173.*
- Smith, D. 2009 'Insects', pp. 31-33, in L Webley and J. Hiller (eds) *A fen island in the Neolithic and Bronze Age: excavations at North Fen, Sutton, Cambridgeshire, Proceedings of the Cambridge Antiquarian Society* 98: 11-36.
- Smith 2009.D.N. 'the Coleoptera associated with Bridge 1' pp. 164-170 in S. Ripper and Cooper, L. (eds) *The Hemington Bridges: The Excavation of three Medieval Bridges at Hemington Quarry, near Castle Donnington, Leicestershire* (Leicester Archaeological Monographs 16). Leicester: University of Leicester.
- Smith,D.N. 2008. 'The insect remains' pp. 52-53 in J. Hart and M. Alexander (eds) *Prehistoric, Romano British and Medieval remains at Blenheim Farm, Morton in Marsh, Gloucestershire: Excavations in 2003*. Transactions of the Bristol and Gloucestershire Archaeology Society 125/ Bristol and Gloucester Archaeology Report No.5. 1-67.
- Smith, D.N. 2008. 'Insect remains' pp. 112 - 120 in J.Thomas (ed.) *Monument, Memory and Myth: Use and reuse of three Bronze Age Round Barrows at Cossington, Leicestershire* (Leicester Archaeology Mongraph 14). Leicester: University of Leicester.
- Smith, D.N. and Morris M. 2008 'Insects' pp 480-482 in Bowsher, D. Holder, N. Howell, I and Dyson, T.(eds.)*The London Guildhall: An Archaeological History of a Neighbourhood from Early Medieval to Modern Times* (Museum of London Monograph Series 36). London: Museum of London.
- Smith, D.N. and Morris M. 2008 'Insects' pp. 218-219 in Bateman, N., Cowen, Carrie and Wroe-Browne, R. .(eds.) *London's Roman Amphitheatre, Guildhall Yard East, City of London EC2.* (Museum of London Monograph Series 35). London: Museum of London.
- Smith, D.N. 2007 'The insect remains' pp. 142-144 in Seeley, D., Phillipotts, C. and Samuel, M. (eds) *Winchester Palace: Excavations at the Southwark Residence of the Bishops of Winchester* (MoLAS Monograph 31). London: Museum of London Archaeology Service.
- Smith, D.N. 2006. 'insect remains' pp. 185-180 in L. Jones, Woodward, A. and Buteux, S. (eds.) *Iron age, Roman and Saxon Occupation at Grange Park: Excavations at Courteenhall, Northamptonshire 1999* (Birmingham Archaeology Monograph series 1 : British Archaeological Reports; British Series 425). Oxford: Archaeopress.
- Smith, D.N. and Chandler, G. 2004. 'Insect remains', pp. 389–94, in Sloane, B. and Malcolm, G. (eds.) *Excavations at the Priory of the Order of the Hospital of St John of Jerusalem, Clerkenwell, London* (Museum of London Archaeology Service Monograph 20). London: Museum of London.
- Smith, D. N. 2004. 'Insect remains' pp. 40–46 in Ciaraldi, M. Cuttler, R. Dingwall, L and Dyer, C. (eds.) *Medieval tanning and retting at Brewood, Staffordshire*. Staffordshire Archaeological and Historical Society Transactions 40, 1-57.
- Smith, D. N. 2004. 'The insect remains from the well' pp. 81-88 in Bishop, M. C. *Inveresk Gate: excavations in the Roman civil settlement at Inveresk, East Lothian, 1996-2000*. STAR Monograph 7. Loanhead, Midlothian