

## Impact case study (REF3b)

<b>Institution:</b> University of Oxford
<b>Unit of Assessment:</b> 31
<b>Title of case study:</b> Promoting Awareness of Greco-Roman Culture and Literature through Papyrology
<p><b>1. Summary of the impact</b> (indicative maximum 100 words) Papyrological research since 1993 by Oxford scholars has led to important new discoveries that have promoted increased public understanding and discussion of ancient literature and history. Research on documentary papyri has led to greater awareness of daily life in Oxyrhynchus, a Graeco-Roman provincial capital in central Egypt. The publication and translation of a new poem by Sappho has led to its inclusion in new translations of Sappho and ancient Greek lyric by leading publishers. Major Digital Humanities projects, <i>Oxyrhynchus Online</i> and <i>Ancient Lives</i>, have made the Oxyrhynchus papyri available to the public through the use of a web interface. Mass participation facilitated by the project has received wide publicity for increasing the engagement of the public with the methods and materials of scientific research. The website has had a major pedagogical impact through its use in schools.</p> <p><b>2. Underpinning research</b> (indicative maximum 500 words) The Oxyrhynchus collection constitutes well over 500,000 fragmentary manuscripts from roughly the end of the 1<sup>st</sup> century BC to 800 AD, thus documenting the end of the Ptolemies, Greco-Macedonian dynasts who followed the conquest of Alexander the Great in 330 BC, to the period under such Roman emperors as Augustus, Hadrian, and Diocletian, and then finally witnessing the end of antiquity in Egypt when the Arabic-Islamic invaders arrived in the 640s AD. This collection of mainly Greek literary (books) and documentary texts (i.e. texts of daily life: business records, personal letters, receipts for taxes paid, notices of births and deaths) has been responsible for extending and improving our knowledge of Greek and Roman literature, philosophy, history, medicine, and mathematics, as well as early Christian theology and life. The vast majority of these texts are papyrus fragments, broken texts and scraps that were thrown away into one of several garbage dumps outside the city walls. Consequently, the work involved in reading and interpreting papyri is arduous and complex.</p> <p>Parsons' research consisted in the detailed editing and analysis of numerous papyri from Oxyrhynchus over the course of his scholarly career. Through this research, Parsons was able to recreate the life and culture of a once flourishing Egyptian market town, presenting a detailed description of some of the economic, religious, educational, legal, financial, administrative and personal concerns which Oxyrhynchus' inhabitants chose to commit to writing. His research was published as a monograph in 2007 in a style accessible to a non-specialist audience.</p> <p>One particularly notable literary papyrus (though not in the Oxyrhynchus collection) published by an Oxford scholar in recent years is West's reconstruction in 2005 of what is one of the very few complete poems by Sappho known to us. This form of papyrological research involves expert knowledge of ancient scripts, Greek lyric poetry, and the Greek mythological tradition. West published his research in a leading academic papyrological journal, and also wrote a piece on the Sappho poem for the <i>Times Literary Supplement</i>, with accompanying translation.</p> <p>Obbink has taken research into the Oxyrhynchus papyri into new directions with two major Digital Humanities projects, <i>Oxyrhynchus Online</i> and <i>Ancient Lives</i>. This research (done in collaboration with Dr Chris Lintott of the Department of Astrophysics at Oxford, with Obbink as PI) consisted of imaging individual papyrus fragments (numbering in the millions), developing computational methods for processing and extracting image data from photographs, and creating an interactive website and database to collect and algorithmically process digital transcriptions of the papyri. This project has expedited and improved the process of transcribing, cataloguing and identifying the vast quantity of remaining texts. It has resulted in the development of new ways to study ancient texts through the merging of human and machine intelligence.</p> <p>The research that went into the creation of these digital projects has in turn fostered further research on the papyri themselves. As a result of the successful implementation of the <i>Ancient Lives</i> website, Obbink was able to oversee development of a consensus algorithm to process the multiple transcriptions of a given fragment. This linear-sequencing algorithm transforms user input into a line-by-line Greek text useable within a text editor and a cataloguing interface that organizes</p>

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the transcriptions and allows for the input of key metadata. The interdisciplinary nature of the project enables the use of these coding algorithms that were originally designed for research communities in astrophysics and bioinformatics. A further off-shoot of the project was the introduction a cost-effective portable scanner for studying ancient manuscripts with multi-spectral imaging capability (MSI), the economic and cultural impact of which is described in a separate case study.

The key researchers are:

Professor Peter Parsons, Regius Professor of Greek, Christ Church, Oxford, 1989-2003; since 2003, Emeritus Professor.

Dr Dirk Obbink, Official Student (Tutorial Fellow) in Greek, Christ Church, Oxford and University Lecturer in Papyrology and Greek Literature (1995-present), Director of The Oxyrhynchus Papyri Project (2005-2010) and subsequently Co-director (2010-present), and a General Editor of *The Oxyrhynchus Papyri* series.

Dr Martin L. West, Senior Research Fellow, All Souls College, Oxford, 1991-2004; since 2004, Emeritus Fellow.

Other Oxford researchers who have made important contributions to the project are: Professor A. K. Bowman, former Camden Professor of Ancient History; Dr Amin Benaissa, Tutorial Fellow in Classics, Lady Margaret Hall; Dr Daniela Colomo, Research Associate and Curator of the Oxyrhynchus Collection; Dr James Brusuelas, Research Associate and Curator of the Ancient Lives Database; Mr Paul Ellis, Data Management Specialist for the Ancient Lives Project; Mr Spiro Vranjes, IT and Imaging Specialist Researcher for the Imaging Papyri project.

### 3. References to the research (indicative maximum of six references)

The key outputs are:

Ancient Lives website: <http://www.ancientlives.org>; [http://www.papyrology.ox.ac.uk/Ancient\\_Lives/](http://www.papyrology.ox.ac.uk/Ancient_Lives/)

Oxyrhynchus Online website: <http://www.papyrology.ox.ac.uk/POxy>

P.J. Parsons, *City of the Sharp-nosed Fish* (London 2007)

"[Parsons] writes with tremendous verve and wit... The sheer elegance of his style tends to make the reconstruction and synthesis he has attempted look effortless. In fact, it depends on truly phenomenal learning and expertise." Mary Beard, *TLS* 25 April 2007

*The Oxyrhynchus Papyri*, vols. 60-79 (London 1994-2013)

T.V. Evans and D. Obbink (eds.), *The Language of the Papyri* (Oxford 2009)

"This is one of the first books to present, in all its complexity, the variety of the Greek and Latin languages as attested by the papyri [...]". Silvia Barbantani, *The Classical Review* 61.1 (2011): 282-4

M.L. West, 'The new Sappho', *Zeitschrift für Papyrologie und Epigraphik* 151 (2005), 1–9

'A new Sappho poem', *Times Literary Supplement*, 24 June 2005, p. 8.

Key research grants:

AHRC Resource Enhancement Scheme Grant for: 'Imaging Papyri at Oxford', 2005: £222,571

BA Larger Research Grant for: 'Digitisation of Card Catalogues, Mummy Cartonnage, and Photographic Records in the Papyrology Rooms, Sackler Library, University of Oxford', 2006: £62,903

John Fell OUP Research Fund Grant for 'Imaging Papyri and Crowd-Sourced Statistical Analysis: a Pilot Collaborative Database' (joint award with Dr C. Lintott, Department of Astrophysics, University of Oxford and the Zoo Galaxy Project), 2009: £45,236

AHRC 'Digital Equipment and Database Enhancement for Impact' (DEDEFI) scheme award for 'A Collaboration between Classics and Astrophysics: An Advanced Multispectral Imaging Laboratory Optimised through Crowd-Sourced Statistical Analysis, 2010: £113,487

### 4. Details of the impact (indicative maximum 750 words)

Research at Oxford on papyri has had significant impact in a wide range of cultural and pedagogical areas. The significant cultural impact of increased public understanding of and direct engagement with texts on papyrus from Oxyrhynchus derives from the *Oxyrhynchus Online* and the *Ancient Lives* websites, which make the complete papyrus collection visible and all the items of each volume of edited papyri publicly available. Together these websites (which are each visited by about 125,000 users per week) bring the most important repository of Greek literature and

social history face to face with a global audience<sup>[i]</sup>. Displaying this vast collection of papyrus fragments online has created a new channel for Classics outreach and education: Obbink's team answers frequent questions and advises users about learning ancient Greek, the fundamental principles of studying ancient manuscripts and the Classics in general. The *Ancient Lives* project has also intelligently embraced social media, such as blogging and Twitter, to communicate with an entirely new audience and generation<sup>[ii]</sup>. Owing to advances in digital technology and the internet, it has succeeded in facilitating public access to the Oxyrhynchus Papyri collection to an unprecedented degree.

The *Ancient Lives* project offers a new platform for inter-cultural communication that goes beyond academic collaboration and extends beyond the traditional scholarly community. Under Obbink's research leadership, the development of the *Ancient Lives* website has enabled a wide non-academic audience to participate in the transcription of papyri. Since August 2011, it has recorded well over 1.5 million transcriptions of the Oxyrhynchus papyri, the work of over 250,000 online collaborators. Within the first months of the launching of the project, online users helped identify important fragments of authors such as Simonides, Plutarch, Menander, and Euripides. Email testimonials available range from 'a paralegal with a love for the written word and a passion for history' who writes that 'I'm excited to know that I can actually help to further the world's knowledge of our past'<sup>[1]</sup> to the mother of an 8-year-old boy in Glasgow seeking advice about the on-line Greek keyboard. Comments left on the 'Talk' section of the website include: 'I have found that this fragment contains a passage from the First Book of "The History of the Peloponnesian War". I can clearly read lines 4-6' (Anagnostes); 'I love working on these fragments, what an awesome way to involve the "little guy" in such a big undertaking!' (StephanieS84)<sup>[2]</sup>.

Both research on the Oxyrhynchus papyri and also the *Ancient Lives* project in particular have had a significant pedagogical impact. There is keen interest in the papyri from continuing education programmes and secondary schools: project staff respond by giving talks, often illustrated by original papyri. Feedback on such talks includes the comment: 'The talk you gave us yesterday was one of the most interesting I have ever been to, and we were all very excited indeed when you gave us the papyri to look at. The girls have been approaching me all day telling me how informative and fascinating it was (it seems that some of us have found a new opportunity in the studying of ancient ink!). ... I will definitely be volunteering on [*Ancient Lives*] more in future!<sup>[3]</sup> The use of the *Ancient Lives* site in schools has been featured in a short film on the *Guardian's* website<sup>[iiii]</sup>. Professional Classics educators in the US, UK and Europe also use the site in the classroom for teaching purposes. The project has also published a number of articles about the latest published texts of particular general interest in journals and magazines for wider audiences, such as *Egyptian Archaeology*<sup>[v]</sup>. As a result of this publicity and the new website, requests to tour the papyrology rooms of the Oxyrhynchus Papyri Project, housed in the Sackler Library of the Ashmolean Museum, have increased over the last two years from an average of twenty per year, not counting visits by representatives from the media, to forty.

For the past four years the Oxyrhynchus project has also hosted and directed, at the request of their schools, two qualified work-experience sixth-formers per year. It thus involves students engaged in learning Latin and Greek at secondary level in the ongoing hands-on cataloguing and processing of ancient documents written in those languages from the Oxyrhynchus collection, and they in turn provide the project with valuable feedback on user-access to the collection and provision of online and other resources, and testing of the *Ancient Lives* interface.

The papyri and their texts enjoy an increasing interest in the news media, and have been the subject of many newspaper articles and radio and television documentaries in recent years; nationally, these include BBC Radio and television documentaries on Oxyrhynchus, and include other productions in the USA, Australia, and elsewhere<sup>[vi]</sup>. Obbink was interviewed for a television documentary by Michael Wood about a papyrus identified by the project as offering new evidence on the location of Alexander the Great's victory at Gaugamela. Obbink has also appeared in television interviews with Bettany Hughes on the topics of women and science in the Oxyrhynchus Papyri and the role played by women in the early church through the medieval period, and in a radio discussion with Marina Warner on links between a story found in the Oxyrhynchus papyri and Grimms' Fairy Tales<sup>[vii]</sup>.

Oxford papyrological researchers have also achieved cultural and pedagogical impact in other areas:

- The Oxyrhynchus Papyri Project has hosted public workshops (each attended by c. 200

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people) at the British Academy and the Egypt Exploration Society showcasing work in progress and important texts identified by the project, discussed by invited specialists<sup>[vii]</sup>.

- Peter Parsons' research on the cultural life of Oxyrhynchus has achieved impact through the success of his popular 2007 book, *City of the Sharp-nosed Fish*. This book was awarded two prizes for popular scholarship in 2008, the John D. Criticos Prize (which stipulates that winning books 'must be accessible to a broad readership') and the Classical Association prize (which is awarded for making 'a significant contribution to the public understanding of Classics'). Since 2008, it has been translated into Czech, Greek, German, French, and Spanish. The English edition has had hardback sales of 2568 and paperback sales of 4696.
- Another important forum for impact is the Ashmolean Museum, which has received more than 1 million visitors annually since its reopening in 2009 following a major expansion: the 'Reading, Writing, and Counting' gallery in the new museum includes an installation on the Oxyrhynchus Papyri.
- West's edition and translation of the new Sappho poem has been taken up in new editions and re-editions of Sappho or Greek lyric. Translations of the poem appear in W. Barnstone, *Ancient Greek lyrics* (Indiana University Press 2010), p. 82, and A. Poochigian, *Sappho: Stung with Love: Poems and Fragments*, with introduction by Carol Ann Duffy (Penguin Classics 2009), while West's own translation appears in the third edition (2012) of *The Norton Anthology of World Literature*, an anthology that is used in courses in English and Comparative Literature in several hundred higher education institutions in the United States. West's Sappho has also entered university Classics syllabuses in many institutions (e.g. both poems appear on the graduate reading syllabus at CUNY)<sup>[viii]</sup>.

#### 5. Sources to corroborate the impact (indicative maximum of 10 references)

##### Testimony

- [1] Email testimonial from Paralegal.
- [2] Comment recorded on *Ancient Lives* website.
- [3] Email feedback from schoolteacher, Headington School.

##### Other evidence sources

- [i] Use of website: *Ancient Lives* statistics derived via Google Analytics; *Oxyrhynchus Online* statistics derived via the Papyrology Website server at <http://163.1.169.40/usage/>, using Webalizer software. A spreadsheet is available for auditing.
- [ii] Online Outreach and Education: Ancient Lives Talk <http://talk.ancientlives.org>; Ancient Lives Blog <http://blog.ancientlives.org>; Ancient Lives Twitter <https://twitter.com/ancientlives>
- [iii] Film on the Guardian website: <http://m.guardian.co.uk/science/video/2013/may/17/children-ancient-texts-citizen-science-video>
- [iv] Popular publications: D. Obbink, 'Recent discoveries from Oxyrhynchus', *Egyptian Archaeology* 36 (2010) 18-20.
- [v] Articles about the project: 'Armchair archaeologists asked to decipher ancient papyri', *Wired*, 26 July 2011: [www.wired.co.uk/news/archive/2011-07/26/ancient-lives-project](http://www.wired.co.uk/news/archive/2011-07/26/ancient-lives-project); 'Ancient Lives, Citizen Science': [www.scientificamerican.com/citizen.../project.cfm?id=ancient-lives](http://www.scientificamerican.com/citizen.../project.cfm?id=ancient-lives); 'Oxford University wants help decoding Egyptian papyri', BBC News, 26 July 2011 [www.bbc.co.uk/news/uk-england-oxfordshire-14289685](http://www.bbc.co.uk/news/uk-england-oxfordshire-14289685)
- [vi] Television interviews with Obbink: 'Alexander's Greatest Battle', Discovery Channel, September 2010, streaming at: <http://www.youtube.com/watch?v=eShGFKUCKXk>; 'Alexandria: The Greatest City', produced by Lion Television for More 4/The History Channel, October 2010; 'Banishing Eve', Radio 4, December 2010; 'Grimm Thoughts', Radio 4, December 2012, streaming at: <http://www.bbc.co.uk/programmes/p012kp35>
- [vii] Public workshops: 'New Greek texts from Oxyrhynchus', British Academy, 24 June 2009; 'Inside the Mind of the Scribe: Writing Surfaces in Ancient Egypt', Egyptian Exploration Society, 14 April 2012, streaming at: [www.ustream.tv/recorded/21834739](http://www.ustream.tv/recorded/21834739); 'Training, Cheating, Winning, Praising: athletes and shows in papyri from Roman Egypt', British Academy, 20 June 2012.
- [viii] Higher Education Institutions: [https://www.gc.cuny.edu/CUNY\\_GC/media/CUNY-Graduate-Center/PDF/Classics/Greek-reading-list-for-translation---MA---PhD.pdf](https://www.gc.cuny.edu/CUNY_GC/media/CUNY-Graduate-Center/PDF/Classics/Greek-reading-list-for-translation---MA---PhD.pdf); <http://books.wwnorton.com/books/detail.aspx?id=23645> (Norton Anthology)