

<p>Institution: University of Southampton</p>
<p>Unit of Assessment: 17A Archaeology</p>
<p>a. Overview</p> <p>Excellence in archaeological research is delivered at Southampton through five international themes spanning the Palaeolithic to the present:</p> <ol style="list-style-type: none"> 1) Human Evolution, Chronology and Dispersals, 2) Classical Empires, 3) Maritime Archaeology, 4) Prehistoric Landscapes, Monuments and Materialities, 5) Representation, Visualisation and Politics of Archaeology. <p>The vitality of our research culture is measured through the wide range of international and national collaborations, our publications and grant record and our large postgraduate community. Our themes encourage and sustain interaction between researchers, with many of our staff contributing to more than one. The themes reflect our strategic emphasis on interdisciplinary engagements, evidenced by close collaborations with researchers in the fields of art, climatology, computing, earth science, engineering, genetics, geography, history, marine science, physical anthropology, psychology and social anthropology. Significantly, our five themes reflect expertise in the scientific and cultural arenas of archaeological research, demonstrating breadth and the integration of conceptual and theoretical approaches. This approach is exemplified by our long-standing research collaboration with the British School in Rome, where Keay has been Research Professor and Director of Archaeology since 2006, with significant impacts in integrating the fields of Classical archaeology, archaeological computing and archaeological geophysics.</p> <p>Three research centres are based in the UoA: 1) the Centre for the Archaeology of Human Origins (CAHO), 2) the Centre for Maritime Archaeology (CMA), and 3) the Archaeological Computing Research Group (ACRG). These Centres are closely aligned with our research themes, promoting interdisciplinary research and research-informed teaching. Our research-led enterprise units are the Centre for Applied Archaeological Analyses (CAAA) and Archaeological Prospection Services at Southampton (APSS), the latter adding further capacity by combining with the ACRG and the CMA to undertake contract-based fieldwork overseas and in the UK. Since 2008 we have strategically developed our enterprise activities to augment our theme-based research by targeting key data-sets that can only be accessed through national infrastructure funding bids. This has led to major Palaeolithic projects along the line of the high-speed Channel Tunnel Rail Link and the opportunity to investigate off-shore multi-period landscapes resulting from enterprise-funded research for the London Array Windfarm.</p>
<p>b. Research strategy</p> <p>Our research goal is to be recognised as an international leader in all of our five research themes. Our strategy to achieve this ambition is guided by the following principles:</p> <ul style="list-style-type: none"> • establishing and leading major research projects on archaeological sites, materials and topics overseas and in Britain, • developing partnerships with national and international centres of research excellence, • requiring all academic staff to regularly submit grant applications to funding agencies, • sustaining our research by winning ECRs and PhD studentships through project funding, • fostering the next generation of research leaders through training and mentoring, • directing our publications to key international journals and major academic publishers, • diversifying our funding streams by fostering industrial collaboration and knowledge transfer, • engaging with source communities and disseminating research through the media. <p>Since 2008 our strategy has resulted in significant expansion of research in the Department. We have diversified into new areas and established important new research partnerships with external organisations (see section d). We have won £2.1 million grant income from RCUK, an increase of 22% over RAE2008, and used our total grant income of £3.5 million to appoint 19</p>

PDFs/ECRs. We have increased our market share of postgraduate awards with 24 AHRC funded studentships (see section c). Our publications demonstrate a commitment to disseminating findings from major RCUK and internationally funded field projects at sites in the UK (Avebury, Kilmartin), Spain (Andalucía), Greece (Koutroulou Magoula, Poros), Egypt (Mareotis, Quseir), Italy (Portus) and Hungary (Százhalombatta). These are indicative of our international leadership that places fieldwork at the heart of our research strategy. In addition, our leadership of major non-fieldwork projects indicates our research breadth, as shown by the role we played in the British Academy Centenary Project 'The archaeology of the social brain' and the confirmation of our status as the major international leader in the field of archaeological visualisation and representation by directing the projects PATINA, 'Visualisation in Archaeology' and 'Archaeology and Egyptomania'.

Our growth in research has been driven and supported through our close involvement with the University's Strategy Research Groups (USRGs) and Institutes, notably the cross-Faculty Digital Economy USRG (chaired by Earl), the sotonDH Digital Humanities hub (directed by Earl), Sustainability Science (Sturt), The Institute for Life Sciences (Pike) and the Southampton Marine & Maritime Institute - SMMI (Adams, Blue, Farr, Keay, Sturt). We are also heavily involved in University strategic initiatives on research data management, JISC IDMB and DataPool.

The highlights of our themes and their associated outputs and projects are as follows:

1) Human evolution, chronology and dispersals

Scope: Human origins and global dispersal in its environmental context (science-based dating, stable-isotopes), bio-diversity and bio-archaeology of past populations (osteology), morphometrical and DNA analysis of ancient megafauna (zooarchaeology)

Staff: Davies, Gamble, McNabb, Pike, Sturt, Wenban-Smith, Weinstock, Zakrzewski

Key projects: Archaeology of the Social Brain (Gamble, McNabb, Zakrzewski), Dating Palaeolithic cave art in Iberia (Pike), Palaeogenetics of Pleistocene megafauna (Weinstock), CTRL Palaeolithic (Wenban-Smith)

Major publications: *Settling the Earth* (Gamble 2013), *Neanderthals Among Mammoths* (Gamble ed. 2012), *Cave of Hearths* (McNabb 2012), *Ebbsfleet Elephant Butchery Site* (Wenban-Smith 2013), *Nature* (Weinstock 2011, v.479 (7373); 2013, v.499 (7456)), *PNAS* (Pike 2008, v.105 (52); 2008 v.105 (50), Davies 2012, v.107 (47); 2012, v.109 (34), *Science* (Pike 2012, v.336(1409))

Major grants: NERC (RESET Consortium), British Academy Centenary Project, ALSF, Leverhulme

2) Classical Empires

Scope: Roman Empire and its organisation (ports, commerce, urbanism, built space/ architecture, material culture), Roman archaeology and identity, Medieval Islam (ceramic production and urbanism)

Staff: Blue, Earl, Gascoigne, Keay, Mladenović, Revell, Zakrzewski

Key projects: Portus Project (Keay, Earl), Quseir-al Qadim (Blue), Tell Tinnis Project (Gascoigne), Identity and the Life Course in Islamic Écija (Zakrzewski)

Major publications: *Portus and its hinterland* (Keay 2011), *Rome, Portus and the Mediterranean* (Keay 2012), *Roman Imperialism and Local Identities* (Revell 2009), *Myos Hormos - Quseir al-Qadim* (Blue 2011), *Urbanism and Settlement in the Roman province of Moesia Superior* (Mladenović 2012)

Major grants: 2 x AHRC standard grants, British Academy standard grant, British Academy-funded Research Professorship of the British School at Rome

3) Maritime archaeology

Scope: Port studies, coastal and palaeo-landscapes, ship studies, South Asian maritime ethnography, deepwater archaeology

Staff: Adams, Blue, Farr, Keay, Ransley, Sturt

Key projects: Lake Mareotis, Alexandria (Blue), Medieval Guernsey (Adams), Kravel Project (Adams), Baltic Ships of State Project (Adams), Coastal Heritage Project UAE (Blue), the outer Thames Estuary Project (Sturt), 'Stepping Stones' Project (Sturt)

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Major publications: *A Maritime Archaeology of Ships* (Adams 2013), *People and the Sea* (Ransley and Sturt *et al* 2013), *Lake Mareotis: Reconstructing the Past* (Blue 2010), *Alexandria's Economic Past* (Blue 2011)

Major grants: AHRC (standard grant); British Academy (standard grant + post-doctoral fellowship); Leverhulme; MEPF/Aggregates Levy; Headley Trust

4) Prehistoric Landscapes, Monuments and Materialities

Scope: Materials, crafts and identities (British Neolithic and Bronze Age Europe), monumentality, landscape and settlement (Neolithic Britain and Chalcolithic Andalucía), food, bodily senses, and memory, and evolution of creativity throughout prehistory

Staff: Davies, Gamble, Hamilakis, Jones, McNabb, Pike, Pollard, Sofaer, Sturt, Wheatley

Key projects: Avebury (Pollard), Kilmartin (Jones), Food, Memory and the Body in the Prehistoric Aegean (Hamilakis), Creativity and Craft Production in Middle and Late Bronze Age Europe (CinBA) (Sofaer), Százhalombatta (Sofaer), Stonehenge Riverside Project (Pollard), Koutroulou Magoula Project (Hamilakis), Between the Monuments (Pollard), Valencina de la Concepción (Wheatley), Iberian LBA Stelae (Wheatley)

Major publications: *Landscape of the Megaliths* (Pollard and Wheatley 2008), *Prehistoric Materialities* (Jones 2012), *Archaeologies of the Senses* (Hamilakis 2013)

Major grants: AHRC standard and resource enhancement grants, HERA, EC Marie Curie, Institute for Aegean Prehistory

5) Representation, Visualisation and Politics of Archaeology

Scope: Archaeological representation, particularly visualisation and museum display, photography and archaeology, imaging and digitisation, multimedia technologies in cultural heritage, archaeological ethnography, politics of archaeology, community archaeology, nationalism, the history of Palaeolithic archaeology

Staff: Earl, Jones, Hamilakis, Isaksen, McNabb, Moser, Sofaer, Wheatley

Key projects: 'Visualisation in Archaeology' Project (Moser), 'Archaeology and Egyptomania' (Moser), Kilmartin (Jones), Kalaureia (Hamilakis), Koutroulou Magoula (Hamilakis)

Major publications: *Designing Antiquity* (Moser 2012), *An Animate Landscape* (Jones 2011), *Dissent with Modification* (McNabb 2012)

Major grants: AHRC (standard grant), AHRC (Science & Heritage Scheme), AHRC (Digital Equipment and Database Enhancement for Impact Scheme), RCUK (Digital Economy Scheme) British Academy (Senior Research Fellowship), English Heritage (HEEP Scheme), Stiftelsen Riksbankens Jubileumsfond, Fellowship Institute of Advanced Study (Princeton)

Future strategic aims: Our goals are to: 1) enhance our reputation as a major international leader for archaeological research and 2) ensure that our research continues to have a major social and economic impact beyond academia. Achieving these goals will be facilitated by recent appointments in key research areas, notably Human Evolution/Archaeological Science (Pike), Classical Empires (Mladenović), Maritime Archaeology (Farr), and Digital Economy Research in archaeology (Isaksen). Our priorities from 2014 onwards are clear. We will focus on completing and publishing current major field and research projects, notably the Portus Project, Tell Tinnis and CinBA. We will embark upon a new range of high impact projects funded from a wide range of sources. In 2013 alone we won grants of over £3.5 million to fund projects up to 2019. The Classical Empires theme will benefit from the success of the Portus Project with an ERC Advanced Grant (€ 2.5 million) for an inter-disciplinary study of Roman Mediterranean ports (Keay and Earl: 2014-2019), while the Representation theme (Moser) has been funded by the Leverhulme (£90,000) to produce a study of British Art, Archaeology and the Discovery of Ancient Egypt (Moser). Contributors to the Human Evolution theme will be looking at the social capabilities of Middle Pleistocene Hominins from La Cotte (Jersey) (Gamble and McNabb) with an AHRC research grant (£570,000), the Palaeolithic origins of ceramic technology with support from the Leverhulme (£136,000) (Davies), and dating the origins and development of Palaeolithic cave painting in Europe by U-series disequilibrium (Pike) with funding from NERC (£530,000). We will also be developing new areas of research, notably the Pelagios 3 Project that will produce a digital index of ancient and Medieval place names (Isaksen), funded by the Mellon Foundation

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(£318,000). These and other projects are bringing many new post-doctoral researchers with diverse skills into the Department, further enriching the vitality of our research environment. In addition, we will be developing our distinctive research-led approach to enterprise through third stream funding. Specialists from Maritime Archaeology (Sturt and Dix) have been funded by the University to enable them to bid for major funds to undertake underwater research in advance of major UK infrastructural projects (viz. the London Windfarm Array and Sizewell B). We will also be closely monitoring the impact of all of our on-going research. While we will be careful to look for the longer-term impact of existing studies, we will also be developing new ones; for example in the field of cultural heritage management, in Mediterranean war zones and in craft and creativity in Bronze Age Europe. Future work will adhere to our publication strategy, which prioritises prompt completion and submitting outputs to major international journals and imprints, as well as engagement with the media. We will also benefit from continued AHRC postgraduate studentships as a member of the successful (2013) SWW BGP2 consortium bid.

c. People, including:**i. Staffing strategy and staff development**

The UoA is led by the Head of Department - HoD, who together with the Head of Research – HoR and Director of Programmes – DoP oversee research, teaching and personnel management. The latter two report to the HoD and the Archaeology Management Group (AMG), which meets every three weeks in term time. The HoD in turn reports to the Dean of Faculty and the HoR reports to the Faculty's Associate Dean for Research. Research matters, including strategic planning and monitoring, are dealt with in the Departmental Research Committee, which meets each term, and reports to the AMG.

Strategy and appointments: Our primary policy for staff appointments is to enhance existing research strengths and build capacity to deliver our research strategy. In addition appointments have also been made in new areas in the context of wider University strategic initiatives. As a result we have recruited staff at all levels. Accordingly, the focus on attracting senior staff with a strong international reputation has been augmented with initiatives to recruit junior colleagues with exceptional research potential. Since 2008 the UoA has made 6 new external appointments, Gamble, Pollard, Pike, Isaksen, Farr and Mladenović. The appointment of the first three individuals, all international authorities in their respective fields, reflects our commitment to securing international leadership in key areas. Thus Gamble bolsters our world-class leadership in Palaeolithic archaeology, while Pollard has strengthened Southampton's international leadership in British and European prehistory and Pike has significantly enhanced our research in archaeological science. The junior scholars who have joined the UoA have reinforced particular strengths and brought in important new expertise. While the appointment of Isaksen demonstrates our strategic investment in developing digital archaeology as a growing area of research, Farr brings a new Pacific dimension to our maritime research, and Mladenović extends our expertise in Classical archaeology. With regard to gender equality and diversity we have 14 male and 9 female staff; 5 of the women and 12 of the men are at Senior Lecturer level and above. During the assessment period 19 postdoctoral fellows were appointed through the thematic research structure: Human evolution (Shaw, Julien, Farbstein, Hackenbeck), Classical Empires (Mladenović, Triantafyllou, Salomon), Maritime (Farr, Ransley), Prehistoric Landscapes (Budden, Diaz-Guardamino Uribe, Freeman, Lamdin Whymark, Maričević; and 2 Marie Curie ECR awards – Karlsson, Jiménez Jaimez), and Representation (Anagnostopoulos). In addition we appointed 2 specialist researchers in imaging and web technologies (Pagi, de Soto). A 50:50 gender ratio is represented in this group and of these researchers Farr and Mladenović have been promoted to lectureships. Departmental research is supported by 7 other permanent staff members including a Senior Teaching Fellow (Sly), 2 Senior Research Fellows (Morris, Wenban-Smith), 2 Technicians (Barker, Phillips) and 2 Experimental Officers (Hay, Strutt). Since 2008, 9 members of staff have been promoted: 6 to Senior Lecturer (Blue, Davies, Earl, McNabb, Sturt, Zakrzewski), 1 to Reader (Jones), and 2 to Professor (Adams, Hamilakis).

Staff development, support and monitoring: Upon appointment, research staff liaise closely with the HoR, in conjunction with the HoD, to establish plans for research and appropriate publication strategies. To ensure successful delivery of our research strategy overall, the UoA prioritises staff mentoring, support for research activities and the creation of a dynamic research culture. This activity is facilitated by the Research Committee, which reports termly on

developments and oversees:

Monitoring and mentoring: The HoR liaises closely with academic staff to ensure that individuals have clear research goals with realistic targets. Annual research planning meetings with academic staff are held in parallel with the University's annual appraisal system (Professional and Personal Development Review - PPDR) and reported to the Faculty Research Committee. A mentoring system for ECRs, which involves discussions on the framing of research projects, on appropriate funding avenues and publication strategies is run by the HoR. In addition, all staff are encouraged to participate in the research orientated training courses offered by the University. While some individuals have undertaken courses on research skills such as publication and specialist software training, others have completed training in research management and leadership.

Research support: Staff in the UoA have access to a number of internal (Department, Faculty and University level) avenues for research support including, 1) funds: staff can apply to the Department Research Committee for funds to establish the feasibility of research projects (there is an annual budget of £8-10k); the Faculty runs a Small Awards Scheme; the University has an 'Adventures in Research Scheme' and Research Initiatives fund, 2) research leave: staff can apply for one semester in six (University policy is one in eight) 3) grant overheads: staff retain a proportion of the overheads on their research grants that can be used to support their ongoing research, and 4) workload reduction: staff can apply to the HoD for a reduction in administrative duties to enable completion of publication of key projects.

Research culture: Strategies to promote a lively and active research culture for the UoA centre around the organisation of workshops and seminar series in which contact with and amongst the postgraduate community is fostered. These include weekly research seminars for visiting speakers, a weekly internal seminar series for staff and PGRs to report on research projects, and occasional seminar series held by the research centres and our Prehistoric and Pottery groups. Conference organisation is also a vital part of the UoA's strategy to promote dialogue amongst colleagues (see section e).

Faculty and University level: Faculty monitoring of staff research progress takes place via the PPDR procedure and the Research Planning reporting provided by Departmental HoR's. Support for staff at the University level includes organisation of workshops targeted at ECRs (which address topics such as applying for grants, publishing research, supervising research students, and building and leading teams), and the organisation of interdisciplinary conferences aimed at encouraging inter-disciplinary collaboration amongst ECRs. During this probationary period, new lecturers are given a lighter teaching and administrative load than more senior members of staff. Equality of opportunity for staff is promoted and delivered through the University's Equality Plan 2010-2013, developed with the support of students and staff from all areas of the University. This plan establishes the equality and diversity requirements for the Fair Access Agreement, REF and Public Sector Equality Duties across the University. The University's Code of Practice for the selection of staff for REF2014 governs the processes and procedures followed by all staff involved in the selection of outputs returned for REF2014. The Research Staff Development Team (RSdT) provides information, advice and resources to support research staff, particularly Research Assistants, ECRs and Senior Research Fellows, in their careers and professional development. Finally, The University is a signatory to the Concordat to Support the Career Development of Researchers and has been actively implementing the seven Principles of the Concordat since January 2009.

ii. Research students

Postgraduate Recruitment and Research: The postgraduate strategy for our UoA is twofold. First, we aim to increase Masters and PhD recruitment (from the MA programmes we offer and through overseas marketing). Second, we aim to have a good number of studentships through BGP2 and individual funded research projects. For the assessment period both these aims have been met. The number of registered students rose from 48 MA and 48 PhD in 2008/09 to 52 MA and 97 PhD in 2013. In the current REF period a total of 31 students who obtained their Masters qualification went on to study for a PhD at Southampton. 13 PhD and 11 MA students gained AHRC studentships compared to 15.3 (PhD and MA) during the RAE2008. These were won through the University's AHRC Block Grant, with Archaeology performing above expectation in the Faculty competition (32% of all grants awarded), and also through our AHRC, HERA and EC Marie

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Curie projects. 3 studentships were gained through the RCUK Web Science DTC, 1 through the Complex System Simulation DTC and 4 overseas studentships were won (3 from Conacyt [Mexican government] and 1 from Social Sciences Canada). More Research Council studentships have been gained as a result of Southampton's involvement in the Collaborative Doctoral Award Scheme (2 PhDs with the British Museum), and via internal strategic multidisciplinary support (SMMI studentships – 3 currently). From 2008-13 a total of 24 studentships were awarded compared to 22.3 in the 2008 RAE. 37 PhDs were awarded from August 2008-July 2013, with a ratio of 11:8 (female: male) and since 2007, 90% of starters have been awarded their doctoral degree within 4 years (or PT equivalent).

The UoA aims to ensure that a clear structure for progression into careers is established for postgraduate students (section e). This is achieved through the annual reporting system administered by the discipline's Head of PGR and our system of PGI and PhD supervision, and also by prioritising the involvement of postgraduates in the research culture of the Department through the organisation of seminar series and conferences in which they play a leading role. Increasingly our postgraduates are making exemplary use of social media to develop and promote their research. Research students have significantly contributed to the environment of the department by organising workshops and conferences at both a national and international level, for example "Unravelling the Palaeolithic" (2011) and "Connecting the Past" (2012).

Postgraduate support and infrastructure: *Discipline level:* While the progress of the UoA's Masters students is monitored by the co-ordinator responsible for each of the programmes (Archaeology of Rome and its Provinces, Ceramics and Lithics, Computing, Human Origins, Maritime, Osteoarchaeology, Social Archaeology), our PhD students are assigned a primary supervisor and an advisor by the Head of PGRs and all supervisors must attend compulsory supervisor training. Upon registration, students and their supervisors determine individual training needs and monitoring of research progress takes place at regular supervisory meetings for both MAs and PhDs. The Head of PGRs for the UoA ensures that annual progress reports are completed and liaises with the committee of PhD students who organise the annual Archaeology postgraduate conference at which all PhD students are required to deliver papers on their research. Postgraduates are also represented on the UoA's Staff Student Liaison Committee, which is held termly, and Research Committee.

Faculty and University level: The Faculty Postgraduate Research Office oversees all postgraduate matters across the disciplines. This office/team works together with the UoA and the Humanities Graduate School (HGS) to organise an Induction Programme for new postgraduates. HGS provides all students with a laptop and space in which to study and throughout the academic year it provides training for all research students. From 2012 the HGS provided doctoral students with £750 per year to fund advanced training. It organises an annual Faculty postgraduate conference, a bi-weekly seminar series and a student journal *Emergence* to which students from our UoA attend and contribute to. Multidisciplinary research groups such as the sotonDH Digital Humanities hub also invest in postgraduate research e.g. via £500 small grants and support for workshops and conference attendance. PGR student facilities are located in the same building as the Archaeology Department and the research centres with which they are affiliated. At University level, the Researcher Development and Graduate Centre (RDGC) liaises closely with Head of Graduate Studies (HGS) to co-ordinate postgraduate research activities and doctoral training across the Faculties. The RDGC also runs an annual research showcase event for all doctoral programmes in the University, which takes the form of a 'Three minute thesis' competition. Students may book to attend courses online via a dedicated database of all generic skills training available across the University. In addition to formal training, PGRs have access to a range of experiential learning opportunities through demonstrating/teaching and involvement in the UoA's public engagement activities, including membership of the University's Public Engagement Network Group. PGRs also have access to a dedicated section of the University of Southampton's Careers Service, which runs 'employability' events for doctoral researchers including, academic and non-academic career-path sessions and doctoral-level placement programmes. Postgraduates are encouraged to participate in the University's Graduate Passport Scheme - a career development programme that offers accreditation for attending sessions and undertaking personal development activities and that complements academic training.

Finally, the UoA's contribution to Archaeology is indicated by the appointment of our graduates

to positions within the discipline and the heritage sector more widely (excluding post-doctoral fellowships). PhD students graduating in the REF period have taken up permanent lectureship posts at University of Southampton (Isaksen); York (Perry); University of Alexandria (Khalil); University of the Aegean (Stephanou); University of Canterbury (Sibbesson); University of West Greece (Pantzou); University of Brighton (Cole) and University of Exeter (Cooper).

d. Income, infrastructure and facilities

Research funding: For the assessment period UoA staff attracted research awards from a wide range of funders, generating a total income of £3,552,881 from August 2008-July 2013. Over £2 million of this amount was awarded by Research Councils (£2,117,657), and a further £1.4 million was generated from collaborative grant applications with other HE institutions and from other grant-awarding bodies and foundations. E.g., c £250,000 was generated from heritage agencies (English Heritage) and over £400,000 from the British Academy (British School at Rome) and the Swedish Institute in Athens. We have been successful in securing new funding streams, including £200,000 generated from the European Science Foundation. Finally, over £100,000 has been generated from private companies such as AMEC, Google, CEFAS and Ramboll UK, representing a new source of research funding that has largely been generated through consultancy to industry. We are determined to maintain this momentum in gaining grants and the £3.5 million we have been awarded in the last year alone will be used to carry out ground-breaking new projects on our designated research themes.

Infrastructure: Archaeology is one of seven disciplines within the Faculty of Humanities. Research for each of these disciplines is administered through the Research and Enterprise Committee, chaired by the Associate Dean of Research and with HoRs and Directors of Research Centres making up the membership. A Faculty Research Support Officer (from Research and Innovation Services - RIS) provides assistance in identifying appropriate grant schemes for staff and in the preparation of bids. At University level, the Research and Enterprise committee is chaired by the Pro-VC of Research and the Associate Deans of Research. The University's Research and Innovation Services and the European Office provide specialist support for EU funding bids and collaborations with other external partners. They also offer advice on ethics and research contracts, brokering partnerships and the commercialisation of intellectual property (including support for CPD activities, enterprise activities, research collaborations, spin outs and licensing). Extensive connections by Archaeology to the University's Multidisciplinary activities and staff further support grant development and research.

Facilities: Archaeology is housed in two buildings on the Avenue Campus site of the University, including the purpose-built Crawford Building (completed in 2006) and the adjacent Burgess Building. The buildings house seven laboratories accessible to all students and staff for the study of isotopes, lithics (John Wymer lab), osteology, ceramics, computing, maritime activities and teaching (Nick Bradford lab). While the osteology, ceramics and lithics laboratories contain major reference collections and sample preparation equipment, the computing laboratory houses state-of-the-art data capture, analysis and visualisation hardware and software. The Department has state-of-the-art geophysical and topographical survey equipment. We also have close links with research facilities within the University including e-Infrastructure South and Iridis4 super-computing, survey and sampling technologies in NOCS and Geography, the μ -VIS CT centre and Ship Science Engineering. Together these facilities have been instrumental in attracting PhD students, post doctoral researchers and new lecturers to Southampton, and also developing new UG student researchers. A significant number of these individuals benefit from access to other major university facilities, which are widely used as part of our research collaborations with Electronics and Computer Science, Engineering, Medicine and NOCS.

e. Collaboration or contribution to the discipline or research base

Since the 2008 RAE the UoA has established a number of important new research collaborations with national and international partners involving co-funding and/or co-publication. At the international level a selection of our key collaborations include: the British School at Athens, the Greek Archaeological Service/Greek Ministry of Culture; the British School at Rome, École Française de Rome, Soprintendenza per I Beni Archeologici di Roma, Insitut Català d'Arqueologia Clàssica, Università di Roma Tre and La Sapienza; the Viking Ship Museum Denmark, University of Trondheim, Natural History Museum Vienna, National Museum of Denmark, Lejre

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Archaeological Park; Zagreb Archaeological Museum; Matrica Museum; the Ministry of Heritage of Montenegro; University of Sultan Qaboos, Oman, Oman Ministry of Heritage and Culture; University of Alexandria; Directorate of Heritage Sharjah and Abu Dhabi Tourism and Culture Agency; the French Institute in Cairo; the Swedish Institute at Athens, University of Copenhagen, Russian Academy of Sciences, Freie Universität Berlin and University of Arkansas, University of Crete and University of Patras, Greece, Universidad de Sevilla (Valencina de la Concepción), Consejo Superior de Investigaciones Científicas and Spanish Ministry of Education, Universidad de Magallanes (Punta Arenas, Chile). At the national level a selection of our major collaborative partners include: the British School at Rome; Cambridge, Exeter, Oxford, Reading, Sheffield, Manchester, Liverpool and Leicester universities; the National Trust, Crafts Council, Scottish Heritage; English Heritage; Natural History Museum and British Museum. The UoA has also established key collaborations with other research centres within the University, namely earth sciences, computational science, ship science and oceanography. The UoA has a number of industrial partnerships including four separate initiatives with Microsoft Research.

The UoA has maintained its international leadership in the subject through membership of key committees, undertaking major editorial roles on journals and organising international conferences in our areas of specialisation listed below. The main contributions to research councils in the UK and overseas include: AHRC Peer Review College (5 staff serving); HEFCE Vice-Chair REF C17 panel (Gamble), AHRC Chair of Panel C (Keay); ERC Advanced Investigation Panel, WennerGren Foundation Peer Review College, Agence Nationale de Recherches, European Science Foundation Peer Review College; International Scientific Advisory Board of the Institut Català d'Arqueologia Classica. Elected positions held by staff include: Fellow of the British Academy (Gamble), Trustee of the British Museum (Gamble), President of the Royal Anthropological Institute (Gamble), Fellow of the Royal Anthropological Institute (Zakrzewski, Jones), Vice-President of the Society of Antiquaries (Gamble), Fellows of the Society of Antiquaries (Adams, Davies, Earl, Jones, Keay, McNabb, Moser, Sofaer, Sturt Zakrzewski), Executive Committee of the European Association for Digital Humanities (Isaksen), Fellow of Society of Antiquaries of Scotland (Jones), Secretary of the Prehistory Society (Pollard), Corresponding Member of the Institut d'Estudis Catalans (Keay). Staff also serve as members on the following societies, councils and programmes: American Association of Physical Anthropologists, British Association for Biological Anthropology and Osteoarchaeology, Association for Environmental Archaeology, Council for British Research in the Levant, Egypt Exploration Society, European Association of Archaeologists (4 staff), International Council for Archaeozoology, National Heritage Protection Programme, Paleopathology Association, Prehistoric Society (7 staff), Royal Geographic Society (2 staff), Society for the Study of Human Biology, Sudan Archaeological Research Society, Roman Society Archaeology Committee and World Archaeological Congress. Staff also act as reviewers for external bodies such as the Swiss Science Foundation, Belgian Council of Research, Dutch Council of Research, Greek Ministry of Education, OTKA, European Science Foundation, Wellcome Trust, UNESCO, CNR, REA-FP7 COFUND Evaluator panel (Research Executive Agency, Brussels), NEH and the NSF.

In addition to serving on the boards of over 20 international journals members of staff have major editorial roles on the following journals *Annual Review of Anthropology*, *International Journal of Cultural Heritage*, *Internet Archaeology*, *Journal of Computing and Cultural Heritage*, *Journal of Human Evolution*, *Journal of Maritime Archaeology*, *International Journal of Nautical Archaeology*, *Journal of Social Archaeology* and *Quaternary International*, *Archivo Español de Arqueología*. Staff also contribute to the peer review process by acting as external examiners for universities including: Birkbeck (Revell), Bradford (Zakrzewski), Cambridge (Sofaer, Zakrzewski), Cardiff (Jones), KCL (Keay; Isaksen), Oxford (Moser), Reading (Pollard), Sheffield and Liverpool (Davies), Ulster (Blue), York (Earl). Staff of the UoA have organised major international conferences: TAG2008 (500+ delegates), CAA2011 (450+), Unravelling the Palaeolithic 2011 (160+), Visualisation in Archaeology 2011 (200+), Cultural Mobility in Bronze Age Europe, Denmark (300+), 'Greek Histories Through the Lens' (150+), Red Sea IV (150+), Creativity: An Exploration Through the Bronze Age (150), Croatia at the Crossroads (100+).

Curatorships have been taken up at the British Museum (Joy, Thomas), Birmingham Museum (Bridgman) and the Viking Ship Museum, Denmark (Trakadas). Graduates appointed as archaeologists for heritage organisations include Tsamis and Fluck.