

<b>Institution: University of Bristol</b>
<b>Unit of Assessment: 22: Anthropology and Development Studies</b>
<b>1. Unit context and structure, research and impact strategy</b>

### Overview

Since REF2014, anthropology has expanded and thrived at Bristol, re-envisioned as an international four-field discipline spanning social, biological, and linguistic anthropology, and archaeology. As our first submission to the Anthropology and Development Studies panel, our 13 research-active submitted staff (12.8FTE) have almost tripled research income to £3.1M since REF2014 (when 9.3FTE were submitted to Archaeology and Geography UoA), demonstrating impact at the highest level, nationally and globally.

## RESEARCH AND IMPACT OBJECTIVES

### Priorities

We have successfully re-shaped and re-structured the Department's research and teaching activity based on the international four-field approach to anthropology. We achieved this by following the recommendations of a 2015 review of our departmental research and education structures so as to enhance quality and develop a strong research identity and unique educational offering that builds on our small size and broad base. Our discipline – identified as a strategic area of expansion within the University of Bristol (UoB) – focused on the following strategies:

- Establish clear identity setting out our four-field approach with three cross-cutting research themes (Adversity, Adaptation and Globalisation) to facilitate innovative interdisciplinary research with wide-ranging impact;
- Ambitious staff recruitment strategy to strengthen the four-field approach, building on the expansion of social and biological anthropology, and ensuring an appropriate balance of staff expertise across the four fields;
- Creation of focused research activity around our research themes to attract and support faculty, postdoctoral and postgraduate researchers; to enable diverse pathways to impact; to create a culture of ambition for external funding; and to enhance collaborative research and innovation across units in the University.

### Four-field anthropology

Our re-envisioned strategy centres on building a unique position in UK anthropology while retaining past strengths from an historical identity in archaeology, and an international reputation in archaeological science. Our three research themes cut across the four-fields of social (Carrier, Morelli, Penfield, Were, Zhang), biological (Gibson, Opie, Robson Brown), linguistic anthropology (Hofer, Jordan, Roberts\*), and archaeology (Brück\*, Cramp, Heyd\*, Hodos, Horton\*, Pospieszny, Saunders\*: \*=departed/retired staff): and we have used these themes to direct ongoing research activity and collaborations across the four fields, to nurture opportunities for applied research, to maximise impact, and to attract and recruit new staff and postgraduates.

The difference in our unit's profile since REF2014 is striking. Despite the challenges presented by the restructure of our Department, all current staff from the previous period have been promoted, and research activity is thriving with significant increases in both income and postdoctoral research capacity. The most remarkable shift is in our new generation of early career anthropologists who

constitute the core of our submission: of 13 colleagues in the submission, 7 are still within 10 years of PhD completion and of these, 6 have achieved major grant capture since arriving at Bristol.

Our success in generating a positive research environment is evidenced by:

- Research Outputs: Research-active staff have produced 6 monographs, 135 journal articles, 44 chapters; and 9 edited collections.
- Grant Capture: Since REF2014, our Department has significantly increased competitive grant income to £3.1M. Highlights include a €1.2M ERC Starting Grant (Jordan), €2M ERC Advanced Grant (Heyd), and a £1.6M UK Space Agency Grant (Robson Brown).
- Research Dissemination: Staff are committed to producing a variety of creative and non-textual research outputs that can enhance knowledge dissemination and public engagement both within and beyond academia. Highlights in the REF period include exhibitions: the internationally acclaimed exhibition curated by Hofer in New York's Rubin Museum of Art, 'Bodies in Balance: The Art of Tibetan Medicine'; Were's co-curated exhibitions at the Vietnam National Museum of History on 'Doi Moi: Journey of Dreams' and the Museum of Danang 'Tales from the Riverbank' broaching sensitive topics that earned him a Vietnam National Achievement Gold Medal. Other new forms of dissemination include the open access databases of cross-cultural data from Jordan's excd.lab such as D-PLACE and KinBank, and the open-source language evolution database CHIELD (Roberts). In the census period, we hosted 10 conferences including the Royal Anthropological Institute (RAI) Film Festival (2015/17/19) and the RAI Postgraduate Student Conference (2018), which enhanced the profile of Bristol as a leading centre of anthropological research.
- Nurturing Environment for Research Impact: In REF2014, while noted for a broad range of public engagement activities, the UoA underperformed on impact. Since then, we have prioritised top-quality research with clear credible impact, as well as encouraged staff to explore pathways to impact as early as possible in conceiving projects. Our two ICSs demonstrate impact at the highest level. Gibson's research is informing and influencing government, NGO policy makers and development practitioners in the UK and Ethiopia about key population health challenges in Africa. Her research was published in gold open access format, ensuring it was freely accessible to participants, collaborators, local NGOs and other Ethiopian government stakeholders. Saunders has dramatically changed the nature of public understanding and museum practice in the field of World War One trench art by demonstrating their narrative value: how they evoke their makers' and users' experiential worlds through art, exhibitions, opera and plays. Faculty impact funds have enabled staff to establish frameworks for facilitating impact evidence gathering at the outset of all research in our Department.
- Fostering Interdisciplinarity: Our interdisciplinary research is redefining the way Anthropology and Archaeology engage with diverse disciplines. Penfield received British Academy Knowledge Frontiers funding (£200k, 2020) to work with electrical engineers and lawyers on 'Energy Resilience', exploring how barriers to energy access have knock-on effects in areas of healthcare, education, and rights. Robson Brown's EPSRC Kickstarter Exploratory and Knowledge Transfer award (£31k, 2020) has enabled her to apply imaging methods developed in her research group to the semi-conductor industry, working with industry partner Infinitesima. Carrier's ESRC funding has placed him alongside academics in Policy Studies researching the drugs trade in Africa. Through the award of the prestigious Getty Scholars Grant (2020), Hodos has worked with historians, scientists, and classicists on Mediterranean Iron Age luxuries. We believe these path-breaking

collaborations are defining our four-field Department and deepening the societal impact of our discipline.

Exemplifying our four-field approach to anthropology are our staff's development of innovative cross-disciplinary methods. Gibson has adapted survey techniques from conservation science to measure the scale and predictors of sensitive or hidden behaviour such as female genital cutting and intimate partner violence; Jordan has brought computational corpus linguistics to expand our cross-cultural knowledge on the use and acquisition of kinship language; and Morelli is using the co-production of art and animation to research social change and indigenous children's futures in Amazonia, conducting one of the few studies in the world that adopts participatory animation in work with children and young people. Working closely with the Faculty ethics committee and with partner communities across the globe, our Department supports a culture of research integrity, and ensures that research is conducted according to appropriate ethical, legal and professional frameworks, obligations and standards.

In the field of scientific archaeology and biological anthropology, the Department has cemented interdisciplinary collaborations, in particular with the Schools of Chemistry and Earth Sciences. The £1.8M Bristol Radiocarbon Accelerator Mass Spectrometer Facility (BRAMS), established in 2016 (£600k from UoB, remainder NERC/BBSRC), is central to these strengths, alongside the expansion and refurbishment of archaeological chemistry laboratories and analytical instrumentation (Cramp, Pospieszny), micro-computed tomography (Robson Brown) and an emerging hub for quantitative and phylogenetic studies of cultural evolution (Jordan, Opie, Roberts). The combination of facilities within these laboratories now provides an ecosystem of technology and expertise which underpins our ability to develop pioneering methodologies in innovative application areas. Examples include the development of image processing methods for non-invasive quantitative analysis of dental tissue microstructure that informs reconstruction of life history (sex, age at death, reproductive status); the development of predictive models of tissue growth and mechanical behaviour, which feed into our understanding of the maturation of extinct hominin species and causes of trauma in forensic contexts; and the individualization of fragmented and disarticulated human remains from archaeological contexts such as the Winchester Cathedral Mortuary Chests (Robson Brown).

The Department's expansion and refocusing have been part of a broader set of initiatives by the University and the Faculty of Arts in which we are based. During 2013-16, the Faculty reviewed all of its research and teaching activities in a project known as Arts2020, leading to the establishment of a suite of Research Centres. Additionally, a new University Strategy in 2016 led to the development of cross-faculty research institutes. Anthropology staff have key roles in University Research Institutes: Robson Brown is Director of the Jean Golding Institute for Data Science and Data-Intensive Research and Turing University Lead (Alan Turing Institute); Were is on the Steering Committee for the Brigstow Institute for Living Well; and Hodos similarly for the Cabot Institute for the Environment. Hodos and Carrier are foundational members in the Migration Mobilities Bristol and co-teach on a cross-Faculty Migration MSc, building on their joint expertise in the Department's research theme of Globalisation. The Faculty's Centre for Health, Humanities, & Science (Gibson, Hofer); Centre for Environmental Humanities (Cramp); and Centre for Science and Philosophy (Jordan), all have active participation from our Department. Gibson is a member of the cross-faculty International Development Group (to foster social science collaborative research) and the University's Global Public Health Steering Group. Were, Zhang and Opie participate in the University-wide Digital Societies research group. Three Faculty Research Clusters, established to

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support interdisciplinary research and experimentation, are directed by anthropologists: Cluster for Linguistics and Language Variation (Jordan); Cluster for Development & Displacement in East Asia and Southeast Asia (Were, Zhang); and Cluster for Ethnographic Animation (Morelli). These hubs facilitate dissemination of research at internally-funded workshops, drafting of funding applications through informal mentoring, and opportunities for networking. Staff involvement in these University and Faculty initiatives has broadened the richness of the research environment beyond the Department whilst contributing to external research capture.

## Post-2020 strategy

Our evolving strategy is to build on our achievements through the following objectives:

### **Consolidate our four-field identity and develop current themes and methodological strengths into a deeper concentration in three research initiatives.**

Creative Anthropology: We are developing a unique, Bristol-brand anthropology based on our active engagement with the city and its thriving media-tech and creative industry, which is part of a wider investment plan at the University level to consolidate links with Bristol's public and private sectors. Recent initiatives to place anthropology at the forefront of creative action include Zhang's Elizabeth Blackwell Institute (£5k) rapid response funding to work with postgraduate students at St. Werburgh's City Farm, co-producing a creative, virtual community space with vulnerable youth during the current COVID-19 pandemic.

Evolutionary Anthropology: Deepening one strand of the Adaptation theme, Gibson, Jordan, and Opie now constitute a critical mass in evolutionary anthropological approaches to culture and human behaviour. Gibson's applied evolutionary analyses of harmful social norms and behaviour, Jordan's research group on the evolution of cross-cultural diversity in kinship and language, and Opie's work on the evolution of social systems will enable Bristol to become a 'hub' for evolutionary analysis of culture and behaviour. This has been evidenced by a weekly discussion group of PhDs and postdocs, attracting eminent visiting scholars (M Borgerhoff-Mulder) and evolutionists from economics, philosophy, and biology.

Scientific Archaeology and Anthropology: Responding to the 2015 post-REF review, there has been a major commitment to building infrastructure capabilities in the Department. With University support, laboratories have been refurbished and re-equipped for research activities run by Cramp, Hodos, Pospieszny and Robson Brown. We are now uniquely placed to address research questions relating to human behaviour through time, and at scales ranging from the individual to macro-regional (e.g. drivers and responses to environmental and cultural change), with the infrastructure to lead in the development of new and interdisciplinary methodologies.

### **Enhance the identity of Bristol Anthropology & Archaeology at national and international level through industry partnerships and collaborations.**

Our concrete plans to expand international partnerships include bridging the museum sector in the UK with those in Vietnam (Were, AHRC Network grant), Japan (Hofer, Wellcome Trust) and Kenya (Carrier, GCRF); Morelli's links between the animation industry and the Ministry of Education in Peru (British Academy); and Robson Brown's grant-funded engineering partnerships with industry leaders Airbus, Yuri and Scisys.

### **Leveraging our four-field approach to deliver world-class research with top quality societal impact.**

University support to develop impact is well-embedded and staff have already secured dedicated funding to develop impact (e.g. Carrier, GCRF, 2018). Crucially, our junior staff take part in

Faculty-led training programmes that help them find pathways to maximise impact. Recent successes include Zhang's collaboration with Bristol Medical School and Public Health England to develop an anthropological understanding of local level preparedness for COVID-19 across borders in Asia, funded by the UKRI-DHSC Rapid Response Initiative.

## 2. People

### Staffing

The Department's 13 staff have a significant responsibility for research, alongside (3.8 FTE) teaching-focused staff (Pathway 3) and 9 postdoctoral researchers, technical and facilities staff (Pathway 2). As a Department, we returned 11 staff (9.3FTE) to REF2014. Following a Departmental review in early 2015, and with the support of the University, we embarked on a transformation to become the first truly integrated four-field anthropology department in the UK. In the period 2016-19 we appointed six new junior staff members on Pathway 1 (research and teaching) across social (Carrier, Morelli, Penfield, Zhang), biological (Opie), and linguistic anthropology (Hofer). After an international search, Were was appointed as a new Chair in Anthropology; his research identity in material culture explicitly bridging anthropology and archaeology. We retained a core number of anthropological and archaeological Pathway 1 staff (Cramp; Gibson; Hodos; Jordan; Robson Brown; and Prior as Pathway 3) after a handful of retirements and departures in both anthropology and archaeology (retirements: Saunders; departures: Bentley; Brück; Elliot; Heyd; Horton; Shankland).

Each new appointment adds value to our existing research strengths and unique branding. Staff are now spread over career stages: 4 Lecturers, 2 Senior Lecturers, 2 Readers, and 4 Professors. Additionally, the Department hosts 10 Honorary Research Fellows: these include visiting researchers, postdoctoral researchers on short visits, as well as retired/emeritus staff. All Honorary Researchers deliver a Departmental seminar during their tenure and are strategically appointed on the basis of current collaborations and expanding research capacity.

In the census period, the Department saw a marked increase in research-only staff, predominately on externally-funded postdoctoral fellowships or attached to major grants. Cumulatively, 23 Pathway 2 researchers have spanned the four fields, at a range of career stages: they include Marie Curie Research Fellows (Kador, Johannesdottir, Watson, Pospieszny); Postdoctoral Research Assistants on Brück's Leverhulme project (Jorge, Adams, Webley), Brück's Gerda Henkel project (Booth); Jordan's ERC project (Honkola, Mitchell, Racz, Sheard), Cramp's NERC (Hammann) and Historic England (Dunne) projects, Robson Brown's Winchester Cathedral project (Dawson), Robson Brown's UK Space Agency/STFC project (Kague, Newham), Robson Brown's EPSRC project (N.Roberts), Gibson's ESRC projects (Uggla, Grieve) and British Academy Project (Howard); a Templeton-funded fellow (Tee) and a Leverhulme Early Career Fellow (Roberts). These early career researchers are supported in their career development by mentors, and as a result they publish in high-ranked journals, have generated policy documents (e.g. the national guidance document for organic residue analysis in archaeology) and have secured additional research funding while based at Bristol (Hammann: £13k Gerda Henkel Foundation grant; Roberts: £3k International Strategic Fund). Through the University's CREATE programme (PGCert in higher education teaching), each are given opportunities to develop their teaching and service profiles through selective contribution to our curriculum.



Pathway 2 researchers have gone on to secure further postdoctoral positions at Universities in Stockholm (Uggla), California SF (Aggleton), Strathclyde (N.Roberts), Glasgow (Adams), CEU (Racz) and Bristol (Kague: Life Sciences; Grieve: Vice-Chancellor's Fellowship; Sheard: Earth Sciences) and at the Natural History Museum (Booth); lectureships at Brandeis University (Goudge), Bristol (Gosling), Cardiff (Roberts), Chester (Tee), Cologne (Mitchell), Erlangen-Nürnberg (Hammann), and Winchester (Dawson); teaching fellowships at UCL (Kador) and University of Aberdeen (Jorge); and senior positions in the profession (Watson: curator, Smithsonian Museum, Washington DC; Webley: Head of Post-Excavation, Oxford Archaeology; Winch, Specialist Research Institute Manager, Bristol Poverty Institute).

### **Staff Development**

Staff are supported in their development as researchers at a number of levels and career-stages with access to a range of both mandatory and elective training through Academic Staff Development. The Department is guided by the UK 'Concordat to Support the Career Development of Researchers' which outlines what is expected of our researchers, their employers and the funders of research to ensure the highest standards and integrity. We monitor staff development through holistic Annual Staff Reviews conducted by the Head of Subject, and an Annual Research Review that brings in a critical friend. A Faculty mentoring scheme matches up mentor/mentee across disciplines for independent career advice. All duties (research, teaching, administrative) are monitored through a Faculty-wide workload allocation model for parity; this is overseen by Head and Deputy Head of Subject. Pathway 2 staff are line-managed through an Annual Staff Review by their PI or mentor. In 2018, Bristol Clear was established to support networking and career development for all researchers at the University.

The Head of Subject holds dedicated induction sessions for new staff. New lecturers are assigned a senior staff member as a mentor for a period of two years, who provides advice and support. At Faculty level, assistance for new lecturers includes an increased research time allocation and Faculty research inductions to the Research and Enterprise Development team. Regular work-in-progress and journal club groups, which bring together staff, postdocs, and PhD students, allow for pre-publication peer review and workshopping of grant applications by Department colleagues.

### **Funding and time for research**

Faculty and University research/conference funding is used strategically. Individual researchers who contribute to their UoA's research profile can apply for up to £1500/year from a Faculty fund, operated as a termly competition. Staff can apply for childcare funds over and above the £1500 cap, facilitating research activities for staff with caring responsibilities. The University has kick-started projects that subsequently secured further external funding (Hodos: Gerda Henkel; Brück: Society of Post-Medieval Archaeology, Cambrian Archaeological Association) and facilitated collaborations leading to data collection and publication (e.g. with Vindolanda Trust, Hammann & Cramp, 2018). Faculty also support and underwrite conferences with up to £2000 and the Graduate Education Director supports postgraduate conferences (e.g. RAI Student Conference 2018).

Given the breadth of research in the Department, staff have access to a variety of other institutional targeted or seed funding opportunities. Smaller funds are available from the School Research Director and from the Department's own research budget (c. 10k/year). We have seen successes from the University's International Strategic Fund (Morelli, Hodos, Roberts, Were) and Cabot Innovation Fund (Gibson, Carrier). Funds have also been won from University Research

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Institutes e.g. the Elizabeth Blackwell Institute (Robson Brown, Zhang). Internal funding is specifically available for impact-related activities through both Faculty funds and the University's administration of Global Challenges awards (e.g. Gibson, for InVivo software for translation/capacity building in Ethiopia). The Faculty has a dedicated Research Impact and Knowledge Exchange Manager, who has responsibility for championing impact, knowledge exchange and partnerships.

The Faculty has a 'Time for Research' policy that operates through the workload allocation model. Pathway 1 staff receive a research-time allocation of between 41-47%, dependent on career stage, and typically receive one full semester in every seven as research-only. On top of this, staff receive pro-rated buyout for research on externally funded grants/fellowships, and can apply for University Research Fellowships to extend single semesters of research leave to a full year (Cramp, Morelli). Staff with designated responsibilities for impact case studies or related activities are awarded further research time. In the census period, 16 semesters of research leave were awarded, all funded. These substantive periods of time have allowed staff to conduct extended fieldwork and academic residencies, such as Hodos as a Getty Scholar in 2020.

Our expansion in anthropology has brought with it a diversification and increase in international guest academics for long- and short-term visits. Seven Visiting Professorships have been awarded via the Institute for Advanced Studies Benjamin Meaker Visiting Professor scheme (2014-15: Lertcharnit; Gray; Gurmu; Walsh; 2016-17: Pepicelli, Majid; 2017-18: Blythe; Crichton). Externally-funded researchers and sabbatical guests (Cortes in 2015; Gilboa in 2017; Kingsolver and Whittaker in 2018; Birchall 2017; Borgerhoff-Mulder and Evans 2018) contributed to the embedding of the four-field approach and the visits of language researchers Birchall, Blythe, Gray and Majid, in particular, helped to expand the research environment for our smallest subfield of linguistic anthropology. Many of these visits translated into research outcomes and impact, including Gibson and Gurmu (Addis Ababa University), who received Wellcome Trust funds to conduct research into female genital cutting in Ethiopia, the results of which are published in Gibson, Gurmu et al (2019) and Gibson, Gurmu et al. (2020).

Our weekly Bristol Anthropology and Archaeology Research Seminar (BAARS) showcases national and international scholars, and is followed by questions and networking for staff and students. BAARS is timetabled into staff calendars to ensure availability, and because speakers are spread across the four fields, it acts as an arena for knowledge sharing and research conversations each week.

## Postgraduate Research Students (PGR)

The Department awards two research degrees: PhD and MPhil. Students may upgrade their registration from the one-year MPhil to a PhD. Within the census period, we graduated 45 successful doctoral students and we currently have a headcount of 21 registered students (2 international, 2 EU, 17 home) with a total of 31 (including students writing up). All students have at least a primary and secondary supervisor, allowing junior lecturing staff to gain experience of the supervisory process. Completions (which include fractions for cross-school supervision, rather than headcount) are shown below.

2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020
3	6.5	4.35	7.5	6.63	5.4	6

From 2017 we require at least a mid-2.1 at Undergraduate and evidence of first-class research for MPhil, and MA or equivalent with first-class research evidence for PhD. Of the registered PhD students in the census period, 17 have been fully funded through grants or scholarships. AHRC Doctoral Training Programmes and Collaborative Doctoral Partnerships have funded 9, with ESRC, ERC, BBSRC, Bristol Faculty Scholarships, China Scholarship Council, National Research Fund Luxembourg, San Diego Zoo, FAPESP (São Paulo, Brazil), and the Schools Act Settlement Trust funding others. In addition, we co-supervise 6 DTP-funded students with a first institution elsewhere in the consortium. Our 7 registered MPhil students are mainly self-funded with 1 fully funded by the Black Bristol Scholarship Programme. All PGR students have access to Departmental study spaces and research space, as well as space and training resources provided by the Bristol Doctoral College.

Students are monitored throughout their training, using the STAR system (an online graduate log), and undergo annual reviews. At the end of the first year, PhD students undertake a progression review to prepare for fieldwork, reviewed by two examiners. Funding is available for PGR activities (attending conferences and other research events) through the Alumni Travel Fund and also a dedicated Alumni Experience Fund. There are also funds available through the School of Arts that support conference and fieldwork expenses.

We ensure that departmental PGR students have academic networking opportunities via the BAARS seminars, and PGR students rotate through an assistant convenor role for seminar organisation. Eight/year discipline-specific monthly skills training sessions led by Department staff cover topics such as fieldwork, article writing, grant applications, and developing impact. PGR students who are part of lab-based research teams (e.g. Jordan's excd.lab; Robson Brown's MicroCT Lab) also have informal opportunities to present research and network with lab visitors. All PGR students (after their first year) are offered equitable opportunities to undertake Graduate Teaching Assistant positions to develop their teaching skills, and are mentored by supervisors and unit directors. Our PhD students have won prizes (Best Doctoral Research Thesis, University of Bristol 2015-16; Outstanding PhD Thesis, Luxembourg National Research 2016-17).

Our shift from archaeology to four-field anthropology means that our PhD cohort has been undergoing a time-lagged transition during the census period. Our aim for sustainable PhD numbers from 2020 is for each staff FTE to graduate at least one student as first supervisor per year. Our strategy to achieve this is to make a new application to the ESRC SWDTP for social and biological anthropology; to build on our existing successes with the AHRC SSWDTP (for archaeology, linguistic anthropology, and material culture); to encourage external funding ambitions in new anthropology staff; and to develop our new MA programme in Anthropology as a pathway to research.

### **Equality and Diversity**

The Department has a strong commitment to supporting the recruitment and retention of staff and students from all walks of life: diversity in gender, age, sexuality, and cultural, national and ethnic origin are represented and visible as part of our unit's research community. Department meetings and research seminars are held in ground floor accessible locations and specialist equipment is provided to staff members with disabilities to enable their research and teaching. At Faculty level, there is an Equality, Diversity and Inclusion Committee with oversight of policies and provision, and the Department has an EDI Champion in this network. All staff are required to undertake EDI



training via the online staff review and development system, and those with certain roles (e.g. job interviewing) undertake additional specialist training; EDI is a standing item on the agenda at Department staff meetings as well as School/Faculty committee meetings. The University Disability Services provide specialist support and mentoring to postgraduate students with disabilities and a Disability Co-ordinator is appointed in every School. The University offers a Returning Carers' Scheme which provides funding for colleagues to re-establish their research following leave due to caring responsibilities. Other University support services include the Parents' and Carers' Network and the Staff Counselling Service. In the census period, four staff members have taken periods of parental leave and one has been supported via the Returning Carers scheme.

Following the departure/retirement of 5 senior men, our gender balance has shifted. Staff submitted as research-active comprise 9 women and 4 men, with 3 fixed term (2 male/1 female) and 1 (male) permanent Teaching Fellow. Of 7 new appointments, 4 were women and 3 were men. During the census period, all established female staff were promoted: Brück, Gibson and Jordan to Professor; Gibson and Hodos to Reader; and Cramp, Hofer, and Jordan to Senior Lecturer. Our staff are international (from Canada, Italy, USA, New Zealand, China, and Austria, as well as the UK) and have LGBTQ+ visibility in the University. The gender balance of PhD students at the end of the census date was 21 women, 15 men with 10 who identified as BAME.

### 3. Income, infrastructure and facilities

#### Funding Portfolio

We have made concerted efforts to improve our culture of ambition in research funding, and during the REF period have seen remarkable grant successes: £3.1M, almost trebling our previous income across the entire previous period (£1.2M). Importantly for the resilience of our research environment, external funding is spread across our four fields and staff, across a variety of funding bodies (including AHRC, ESRC, Historic England, Leverhulme, British Academy, Wellcome, EU Horizon2020, Royal Society, UK Space Agency, ESA, and international charities), demonstrating the reach of our research.

Key grant capture highlights are:

Jordan's €1.2M ERC Starting Grant 'VariKin' investigates the evolution of cross-cultural diversity in kinship. Jordan's success provided the basis for attracting a further ~£120k funding from the British Academy, Max Planck Society, and Leverhulme, and brought in Leverhulme EC Fellow Roberts and visiting scholars Birchall, Blythe, and Majid.

Gibson's £300k British Academy project (Heritage Dignity and Violence scheme) provides new insights into how harmful practices like female genital mutilation are socially maintained and potentially eliminated in rural Ethiopia. In collaboration with Addis Ababa University, the project develops a new method which other ODA countries may use to measure FGM/C norms and behaviour more accurately than previously, as well as evaluate the effectiveness of future intervention efforts.

Carrier's £636k ESRC-AHRC project on cannabis and development in Africa. The first large-scale project on cannabis in Africa, it examines the developmental impacts of the substance on the continent, as well as current policy dynamics in an era when global cannabis policy is in flux. The project is designed to inform policymakers and practitioners through publications, workshops and

other dissemination pathways, in partnership with African scholars, NGOs and global institutions focused on drug policy.

Robson Brown's £1.6M UK Space Agency funding (STFC) developed a new programme of research to explore how the hard tissues of the body retain a signature of life history, and how sex, age and health status intersect with this, with particular reference to extreme environments such as microgravity. The project leveraged additional funding from the Royal Society, ESA and ESTEC and EPSRC to develop space biological anthropology as a discipline. This research has set the agenda at a national level – Robson Brown is now Chair of the UK Space Life and Biomedical Sciences Association, and a member of two ESA Topical Teams for Biosciences, co-writing new Research Roadmaps for ESA and leading the UK response to the recent lunar exploration and lander initiatives.

Morelli's £300k British Academy 'Animating the Future' project addresses the challenges faced by indigenous migrant youth in Amazonia using co-production of animated films for youths to tell their own stories. This project involves collaboration with policymakers and the public to amplify youth voices and maximise impact nationally and internationally.

Penfield's £200k British Academy project 'Energy Resilience' explores how energy access in Amazonia impedes access to healthcare and education. An interdisciplinary team will work with local NGOs and policymakers to disseminate findings and integrate forest populations as principal stakeholders in the co-production of knowledge.

Seedcorn and accelerator awards have provided catalyst funds for new directions, providing routes to impact. Gibson's Wellcome Trust seed fund (£44k) measuring attitudes and practices of gender-based violence in Ethiopia led to her BA Heritage Dignity and Violence grant success and new collaborations with UNICEF, UNFPA and NGOs working to eliminate FGM/C (see ICS).

Our early career staff have a track record of prestigious fellowship funding (Leverhulme: Opie, Roberts; Marie Curie: Penfield, Pospieszny; Wellcome: Hofer), and each year staff support fellowship applications from postdoctoral schemes as a route to attracting talented researchers. The research environment is further enriched by international collaborations where staff participate in externally-funded projects that enable travel, networking, and resources, for example: Jordan was a PI on the 3-year NSF-funded \$150k Database of Peoples, Languages, Culture and Environment working group; Hofer benefitted from a Minpaku Overseas Visiting Fellowship, and Robson Brown was a UK lead (£400k) on the four-year EUROTAST project on the Transatlantic Slave Trade which included partners across Europe, the Caribbean, USA, Senegal and Ghana.

### **Space and facilities**

From 2014 onwards UoB strategically invested in the Department's facilities (1) to support our internationally-renowned archaeological science, and (2) to match growth in undergraduate anthropology education by safeguarding our multi-purpose laboratories and dedicated office and research group space in an early 20<sup>th</sup>C Arts & Crafts building. All staff are housed in one building with individual offices, and there is protected workstation space for other postdoctoral, fellowship, honorary and visiting researchers in larger shared offices. PGR students have desk allocations in a shared workroom, equipped with computers and monitored to ensure preferential access to writing-up students. A new PGR Hub, located in Senate House, also provides desk space, training and networking opportunities.

**Research labs and collections**

The Department houses two teaching spaces that are used for undergraduate research: a Material Culture/Archaeology Teaching Lab and a Digital Teaching Lab (12 workstations). All other labs are reserved for staff and PGR research, and comprise two main groupings: Archaeological Chemistry and the BRAMS Facility, and the MicroCT/Imaging Facilities.

ArchChem/BRAMS: The refurbished archaeological chemistry laboratory [funded through University investment (CIPB; £41,000)] includes sample preparation and wet chemistry laboratories and a suite of analytical instruments (GC, prep-GC and prep-HPLC, GC/MS, EA-IRMS) which enable biomolecular and stable isotope analysis of organic compounds (predominantly lipids and proteins) and separation of individual compounds for radiocarbon dating. Pioneering biomolecular methodologies have been developed in the unit (e.g. Cramp, 'Palaeolipidomics: a new biomarker method to detect cereal processing in prehistory') using these facilities in combination with the NERC mass spectrometry facility in the School of Chemistry (e.g. Cramp et al 2014a; 2014b).

The world-class Bristol Radiocarbon Accelerator Mass Spectrometry facility is located in the Department's building, connecting the Schools of Chemistry, Arts, Geographical and Earth Sciences. This state-of-the-art high throughput instrumentation enables high precision dates on small samples, with applications ranging from archaeology through to climate change and global carbon dynamics. It has already enabled pioneering methodologies to be developed, including absolute dating of individual fatty acids absorbed into ancient pottery, allowing established pottery typologies to be directly tested (Evershed ERC Proof of Concept grant 2018; Casanova PhD 2018). This has been expanded by a funded PhD student (Wiltshire, supervised by Cramp & Knowles) who is applying this methodology to trace the spread of earliest pottery into Britain.

MicroCT/Imaging Facilities: The Micro-Computed Tomography Imaging Facility was established in 2009, and refurbished with a new imaging system, specimen preparation area, computer modelling suite and a range of software solutions in 2014. It was the first in the UK dedicated to anthropology. Micro CT is x-ray imaging in 3D at extremely high resolution. It represents 3D microscopy, where very fine scale internal structure of objects is imaged non-destructively. The facility at Bristol pioneered the use of this technology to image anthropological materials such as bones or teeth, and has been at the cutting edge of methodological developments such as the design and build of dynamic stages which permit specimens to be scanned while under loading, or at controlled temperature. We now also offer high-end computational environments and have developed bespoke software solutions for stereology, stochastic finite element analysis, and data pipelines for cloud analytics, all specifically tailored to the needs of users from anthropological fields. Since 2014, the facility has hosted 4 funded PhD projects (AHRC DTP, Schools Act Settlement Trust, BBSRC SW DTP, EPSRC CDT), 2 self-funded PhDs, and 5 funded research projects (Royal Society, UK Space Agency / STFC, EPSRC, ARC, Leverhulme Trust).

Staff have free access to both the Bristol BlueCrystal cluster for high-performance computing and the Research Data Storage Facility (RDSF). These resources are integral to a range of research including search-intensive phylogenetic analyses and open-access cultural/linguistic databases (KinBank, CHIELD) in Jordan's excd.lab, and CT scans and 3D images in Robson Brown's imaging lab. The RDSF is enabling the Department to establish further digital collections for anthropology including photography and animation video. Physical collections include a reference

archaeobotanical collection used in teaching and public engagement, and the 10+-year archive from the Department's Berkeley Castle field school.

The range of infrastructure facilities offers unparalleled resource (~£10M) in one institution for exploitation in scientific anthropological and archaeological research and this provides the crucial underpinning for Bristol's leading role in the development and ground-truthing of new methodologies in anthropological and archaeological sciences.

### **Administrative support for research**

Staff have access to research support from a variety of levels, with primary administrative support at Faculty level. From the Faculty of Arts, staff have dedicated Finance, HR, and IT Services teams for pre- and post-award support. The Research and Enterprise Development team (6FTE) plus Research Development Associates identify and support grant applications, develop bids, and run an internal peer-review system designed to ensure quality for external bids and support for colleagues (the Research Excellence Advisory Panel). Knowledge Exchange Managers help academics to develop impact and PolicyBristol help to engage policymakers in staff research, for example in the development of Gibson's policy brief distributed to UK parliamentarians resulting in an invitation to speak at the Houses of Parliament (see ICS). Faculty Research Directors support additional activities, in particular by running a residential grant-writing retreat each year. From this our staff have written £600k worth of funding applications. The School Research Director provides more targeted guidance to Heads of Subject, and strategic input to individuals in the School of Arts; in the census period this post has been held for five years by two anthropologists (Saunders; Jordan).

### **Technical support**

The Department employs a 0.6FTE Field Technician with responsibilities for archaeological equipment, including training and CPDs. The BRAMS facility currently employs two full-time staff members: BRAMS manager/Senior Research fellow (Knowles) and research analyst (Monaghan).

## **4. Collaboration and contribution to the research base, economy and society**

### **Research Base**

Overview: Staff are embedded in University's research clusters, centres, and institutes which link to our key research themes: adversity (the Cabot Institute; Elizabeth Blackwell Institute for Health); adaptation (the Brigstow Institute); and globalisation (the Migration and Mobility Cluster; International Development Group; Jean Golding Institute - JGI). JGI has a strategic priority of 'Societal Benefit', and facilitates partnerships with Strathmore University in Nairobi, the UN OCHA, Office of National Statistics, The Alan Turing Institute. Staff have participated in various ways (e.g. data competitions, seed corn funding, JGI training). Staff have research collaborations with scholars from other Schools and Faculties. Amongst these, Carrier collaborates with History on an historical archive of Nairobi photographs, and with Policy Studies on drugs in Africa; Roberts with Geography/Cabot on how languages adapt to different climates; Robson Brown works with Engineering exploring the ontogeny of tissue microstructure as a model of programmed transformation in 4D materials, and biomimetics in engineering design; Penfield with Engineering exploring energy access in the Amazon. As befits our ambitions and in line with the interdisciplinary thrust of our Department, our primary research base extends beyond Bristol towards collaborative research with colleagues at other British universities, research, and museum

**Unit-level environment statement (REF5b)**

institutions, and a diverse range of research institutions overseas, including several in the Global South. Since 2016, concentrations have emerged in three key regions:

Latin America and Amazonia, through Morelli's and Penfield's anthropological work with the Pontificia Universidad Católica del Perú; Jordan's linguistic anthropology workshops and partner exchange at the Museu Goeldi, Brazil; Hodos' emerging São Paulo collaboration for new Mediterranean excavations; Penfield's collaboration with energy scholars in Federal University of Pará (UFPA) and Mamirauá Sustainable Development Institute (IDSM) in Brazil.

Asia/Pacific, through Hofer's collaboration with colleagues at Tibet University and the Tibetan Academy of Social Sciences, with Minpaku National Museum of Ethnology, Japan; Jordan and Opie's research ties with evolutionary psychology and Pacific prehistory scholars at the University of Auckland, New Zealand; Opie's collaboration with the Xiao-guang Qi Lab at the College of Life Sciences, Northwest University, Xi'an, China on the analysis of multi-level primate societies using Bayesian phylogenetic approaches; Robson Brown's long-term links with Thammasat University, Thailand, and the Institute of Statistical Mathematics, Japan; Were's on-going collaborative museum research with scholars at The Chinese University of Hong Kong through his AHRC Network Grant and the World Universities Network. Zhang's long-term collaboration with the National University of Singapore and University of Macao; Zhang is also an organizing committee member of the Asian Borderland Research Network.

Africa, through Carrier's and Robson Brown's work with the National Museums of Kenya on photography/heritage and human evolution respectively. Carrier additionally collaborates with the British Institute in Eastern Africa on drug use, and the University of Nairobi and the Technical University of Kenya on urban change; Robson Brown has also co-produced training and workshops with Strathmore University in Nairobi. Gibson has forged strong relations with Addis Ababa University, helping build capacity through staff and postgraduate training in anthropological methods, including the development of the country's first PhD programme in Population studies / Anthropological Demography. Robson Brown has a GCRF funded project investigating bone health in women of HIV status with colleagues in Zimbabwe (Biomedical Research and Training Institute) and South Africa (University of Witwatersrand); and an ESRC-funded project exploring water and energy access in urban settlements with colleagues in the Sierra Leone Urban Research Centre and Makerere University, Uganda.

In line with our research themes, our research collaborations are truly global in range, encompassing institutions in low-, middle- and high-income countries. Such relationships have generated several grants (e.g. Carrier GCRF), as well as important outputs and impact (e.g. Gibson's engagement with influencing rural development practice and policy in Africa), and paved the way for future research projects. In addition, staff have focused on academic capacity building in LMIC: including visiting fellowships, workshops and training for staff and early career scholars in Ethiopia (Gibson) and Brazil (Jordan).

We also collaborate intensively with anthropologists, social and life scientists, and humanities scholars across Europe (U Amsterdam, Austrian Academy of Sciences, Bergen, Bordeaux, Cologne, Copenhagen, Granada, Helsinki, INALCO Paris, Leiden, Max Planck Institutes [Science of Human History, Evolutionary Anthropology, Psycholinguistics, Social Anthropology], Montpellier, Muenster, Murcia, Oslo, Tartu) and in North America (Colorado State University, UC Santa Barbara, UC Davis, CalTech, Stanford, Virginia, NASA Ames Center, NASA JPL, HRAF at Yale)



and elsewhere. Many of these collaborations are enabled by travel or resource funding from collaborators' institutional or national funds, broadening our scope for external resources. In 2020, our staff established a GW4 (Bath, Bristol, Cardiff, Exeter) Anthropology Network to build disciplinary capacity in southwest England. Nationally, we also have active research links with Reading, Oxford, Bangor, UCL, amongst others, notably with disciplines outside anthropology.

In building these research networks, we place a strong emphasis on the co-production of knowledge and the need for equitable partnerships with our national and global collaborators. We also strive for these external research collaborations to be as four-field and interdisciplinary as possible: for example, Jordan's NSF D-PLACE database brought together social and evolutionary anthropologists, linguists, ecologists, geographers, and computer scientists, resulting in an open-access cross-cultural database spanning 1400+ world societies. Cramp's Palaeolipidomics project involved archaeologists from European and UK universities and museums, chemists/bioinformaticians from Muenster and engagement with the MonoGram network (UK grass and cereals community).

### **Research Contributions**

Staff are active members and leaders in many professional bodies, using these positions to further both our departmental research base and our vision for the discipline. Jordan was an RAI Council Member 2014-16 and a founding member of the RAI Anthropology and Language Committee; she is also Secretary of the Cultural Evolution Society (2017-20). Morelli and Hofer are members of the RAI Film Committee and they co-organise the biennial RAI Film Festival held at the Watershed in Bristol, one of the largest and most renowned visual anthropology festivals in the world. We serve on editorial boards for key journals within the four fields of anthropology and beyond, including *Am J Archaeology*, *Anatolian Studies*, *Archaeological Dialogues*, *Journal of Language Evolution*, *Journal of Eastern African Studies*, *Journal of Material Culture*, *Journal of Borderland Studies*, *Journal of Family Studies*, *PLoS*, *Science and Technology of Archaeological Research*, *Transitions*. Staff act as referees for major international peer-review journals such as *Science*, *PNAS*, *Nature Human Behaviour*, *JRAI*, *Current Anthropology*, and *Antiquity*; and are members of peer-review colleges and review major grants (nationally: AHRC, EPSRC, ESRC, UKRI, Leverhulme, and British Academy; internationally: NSF; Canadian SSRC; Austrian Science Fund; Council for the Humanities of the Netherlands; European Science Foundation; Israel Science Foundation; National Geographic; Cyprus Research Promotion Foundation). Major inter/national conferences have been organised by staff as steering committee members: European Human Behaviour and Evolution Association 2014, Cultural Evolution Society 2017, Society for Post-Medieval Archaeology 2018.

### **Economy and Society**

Staff research has significant impact beyond the academy, enabled by our far-reaching themes and the breadth of the research we undertake. Since 2014 we have re-evaluated our base of public engagement activities and aimed to deepen the relationships we have with a range of non-academic institutions, so ensuring that our research can have social and economic impact, as well as impact on anthropology in its broadest sense. Encouraged by the breadth of impact opportunities our new staff have to offer, we see our main strengths in the following relationships:

Museums: We have long-standing relationships with museums centred around adversity, such as Saunders' work on conflict archaeology with the Imperial War Museum. Robson Brown has showcased work on slavery, stress and disease as evidenced in human remains with Bristol

Museums (Skeletons: Our Buried Bones exhibition 2017, winner of the 2018 University of Bristol Public Engagement Award; Leonardo da Vinci: A Life in Drawing exhibition 2019), as well as exhibitions at We The Curious (All About Us: Human Evolution permanent exhibit from 2011), and Winchester Cathedral Museum (The Science of The Bones permanent exhibit from 2019). Brück contributed to 'Inspiring Ireland', a joint project between Digital Repository of Ireland and 8 of Ireland's national cultural institutions to create a digital record of Irish culture and society. Were has extensive experience of working with museums in the UK, Australia, Pacific and Vietnam, and his collaborative research in Papua New Guinea with the Queensland Museum on digital repatriation featured on ABC News Australia and in the Australian Government's National Research Infrastructure Roadmap. The expertise and practical skills Hofer gained at Minpaku (Japan) on a Wellcome secondment are directly feeding into new barrier-free and more accessible exhibition projects in the UK, for example, in Bristol museums and in collaboration with the Bristol Deaf Studies Trust.

NGO/Advocacy: Gibson and Grieve (ESRC-Knowledge Exchange Secondee) have worked with For-Ethiopia (Ethiopia-based NGO) to improve partnerships between Ethiopian academics and development practitioners. Gibson is currently working with FGMC advocacy groups (28TooMany & The Orchid project), as well as multilateral agency the UNFPA. Carrier works with Bristol-based drugs charity Transform on projects in East Africa. Penfield has established collaborations with NGOs in both the UK (LAMMP) and Peru (Derechos Humanos Sin Fronteras) that investigate the impacts of mining on local communities. To raise awareness about endangered sign languages in Asia, Hofer's work has made contributions to Ethnologue and the International Sign Atlas databases, on endangered sign languages, whilst also re-shaping how disability is understood not as biological tragedy, but as diverse experiences of being human, mediated and shaped socially, linguistically and politically.

Government, Policy, and Civil Society: Were's work with the Vietnam Ministry of Culture, Sport and Tourism involves establishing curatorial training programmes for a new generation of museum practitioners. He also served as an elected member on the Australian government's National Cultural Heritage Committee (2014-18). Robson Brown has had a long-standing role with the UK's Human Tissue Authority and more recently has worked with the European and UK Space Agency on capitalising on human spaceflight; she is Chair of the UK Space Life and Biomedical Sciences Association and is leading on the writing of a White Paper for the new National Committee for Space. Carrier has worked closely with officials and politicians in Kenya and the UK for his research on Somalis in urban Kenya, including advising the FCO on policy towards Eastleigh, the Somali part of Nairobi. Gibson has presented her work to the House of Commons All-Party Parliamentary Group on Population and Reproductive Health in November 2018.

We also ensure our legacy of intensive public engagement continues with a wide range of activities. These include promoting a broad concept of anthropology and archaeology in schools and communities through yearly involvement in London Anthropology and Archaeology Day(s); the ESRC Thinking Futures Festivals (on infectious disease, Gibson 2016); our new training excavation at Lower Hazel (Gloucs), and talks to local schools and community-based local interest groups (e.g. Chepstow Archaeological Society, 2018, Cramp). Staff take part in Bristol community events such as Bristol Bright Night (Cramp, Hodos, Jordan, Roberts); Bristol Somali week, the Afrika Eye film festival (Carrier); and Bristol's Brilliant Archaeology festival. All these activities are viewed as pathways for the development of future impact.

**Unit-level environment statement (REF5b)**

Department staff will work with the Impact and Engagement team at UoB towards developing ICS for REF2027. Penfield's Project in Energy Resilience, for instance, will monitor changes in energy access and practices within participating forest communities, as well as changes in policy surrounding energy implementation as a result of project policy briefs. Morelli's ongoing project 'Animating the Future' is exploring tangible strategies to tackle key challenges faced by indigenous Amazonian youth by co-producing visual and written outputs in collaboration with them, which will be fed to policymakers as well as broadcasters and media outlets to amplify young indigenous voices both within Peru and internationally. Were's collaborative research with Vietnamese museum professionals seeks to implement changes in museum practices by introducing community voices in state museums. This research promises to deliver world-class impact, galvanising the resources, infrastructure and talent of a cohesive group of scholars.