

Institution: ROYAL HOLLOWAY, UNIVERSITY OF LONDON
Unit of Assessment: GEOGRAPHY, ENVIRONMENTAL STUDIES AND ARCHAEOLOGY
<p>a. Overview</p> <p>The Department of Geography at Royal Holloway is a vibrant research environment, spanning the natural sciences, social sciences and the humanities. Its research is driven by three groups: the Centre for Quaternary Research (CQR); the Politics, Development and Sustainability group (PDS) (including Departmental direction of the Centre in Information and Communication Technologies for Development [ICT4D]); and the Social and Cultural Geography group (SCG).</p>
<p>b. Research strategy</p> <p>Our research strategy has four objectives: 1) to create distinctive research groups of critical mass which advance Geography's contributions to the natural sciences, social sciences, and arts and humanities; 2) to produce research that is genuinely agenda setting and of the highest quality in terms of both precision and imagination; 3) to enrich the intellectual imaginations and skills of our research staff and students, thereby acting as a centre of development that benefits and shapes the discipline; and 4) to engage with non-academic organisations and people, exchanging knowledge both to enhance our research and to maximise its public benefits. These objectives incorporate the aims set out in our RAE2008 submission, have directed our activities in the assessment period, and are shaping our plans for future development. They are supported by a targeted, strategic approach to external research funding (increased by 86% per annum compared to our RAE2008 submission; see section d).</p> <p>Our success in meeting objectives 3 & 4 is set out in sections c) and e) and in our REF3 submission. Our research groups (objective 1) are central drivers of our success. Early in the assessment period we enhanced our research group structure to develop three groups, each combining critical mass with intellectual innovation. This restructuring also sharpened our focus on our distinctive contributions to the natural sciences, social sciences, and arts and humanities. Our groups help to manage research and drive research agendas, embedding our staff, post-docs and PGR students in vibrant research communities. In meeting objective 1) we create an environment that fosters agenda setting, high quality scholarship (objective 2), both now and in the future.</p> <p>The Centre for Quaternary Research (CQR) drives our contribution to the natural sciences. For 2008-13, its focus has been on leading three scientific advances of major importance for understanding Quaternary environmental change. First, the establishment of new high-resolution terrestrial records of global climate change, including work in Britain, Europe, Africa, China and the Americas. This work adopts a deliberate multiproxy approach, encompassing sedimentology, geochemistry, tephrochronology, micromorphology and multiple palaeobiological techniques, underpinned by geochronology. Second, the examination of human-environment interactions on a range of scales, including landmark publications tracking the environments of ancient human dispersals and adaptations in North Africa and Arabia, Europe and Beringia, and new understanding of anthropogenic impacts on terrestrial landscapes, rivers and biota. Third, advancing high-precision geochronology through the development and application of multiple techniques (including single-aliquot optically-stimulated luminescence, detrital zircon U-Pb and Bayesian modeling of radiocarbon dates). Leadership of the NERC-funded RESET Consortium and within the Leverhulme funded AHOB (Ancient Human Occupation of Britain) research programme (see section d) is indicative of how CQR's research has advanced wider interdisciplinary agendas. Post REF2014, CQR will develop its work in four main directions: (i) reconstructing abrupt climatic events and understanding their impact on ecological and geomorphic systems (focusing on the evidence from high-resolution lacustrine sequences); (ii) understanding biological response to long-term and short-term climate change during the Middle and Late Quaternary (incorporating the study of both vertebrates and invertebrates at population-level resolution, and engaging with the reconstruction of patterns of early human evolution and dispersal); (iii) investigating the complexity of landscape and climate interactions (particularly focussing on the mechanisms and impacts of glacial outburst floods and the investigation of climate and human drivers of Holocene river response); and (iv) the interaction of tectonics and climate change in Eurasia across the Neogene (focussing on the study of loess archives and the application of geochemical and isotopic finger-printing tools). The overall goal for CQR is to address patterns of climate change and Earth System responses on a range of timescales using</p>

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state-of-the-art techniques. We plan a further staff appointment in 2014 to enhance this work.

The **Politics, Development and Sustainability (PDS)** group was created to enhance our contribution to the social sciences. Its strategy for 2008-13 was to lead research on three significant contemporary issues. First, 'Geopolitics and Security'. PDS has developed new insights that advance the critical geopolitical approach (e.g. moving beyond earlier conceptions of popular geopolitics, and attending to the material geographies of geopolitical spaces such as the polar regions). It has delivered landmark publications on the socio-spatial processes through which people, ideas and things become securitized (playing a leading role in a wider engagement between geopolitics and security studies). It has analysed how security is understood and experienced in different sites, ranging from the border to airspace, the city and the home. Second, 'Sustainable Living'. Here, PDS has led on the everyday challenges individuals, households and communities face in making a living, accessing services and fashioning lives they value. Exemplary is the new critical understanding of the role of ICTs in development provided by the 'capabilities approach'. PDS has also interrogated how socially just and environmentally sustainable outcomes can be achieved through government policies and planning, community activism and international collaboration; e.g. in a large EU funded programme of research on the role of indigenous communities and their social memory within conservation policy and practice. Third, 'Communications and Technologies'. PDS has led on the critical role that communications and information technology play in both geopolitics and sustainable lives. Substantive work ranges from that on 'ICT4D' to the role of different media in shaping geopolitical processes. Also crucial here is critically reflective methodological innovation in new research media and technologies (such as participatory video). **Post REF2014**, a key goal is to strengthen this third theme. Future research will drive forward geographical understandings of technologies as practices around new forms of hardware, software and virtual networks. This work will include building on existing collaborations: e.g. with Royal Holloway's Information Security Group (ISG), around the politics of 'Big Data'. The aim of such research will not only be to interrogate the politics of technology use in particular spaces, communities and scales, but also to consider how technologies are reframing understandings of concepts such as security, community, activism and development. A new appointment is planned in this area for the post REF2014 period.

The **Social and Cultural Geography (SCG)** group extends the reach of our research into the arts and humanities. In its strategy for 2008-13, SCG focused on leading research on three issues. First, 'Mobilities: People, Things and Ideas'. Royal Holloway staff have led geographical contributions to the interdisciplinary 'mobilities turn'. The theorization of mobility has been advanced (e.g. in relation to its politics and governance) and key interventions have been made on particular cultures, histories and places of mobility (notably 'aerial lives', exploration, travel and the suburban). Influential chorographic scholarship from Mount Athos to Maxwell St. Chicago has shown how places are mobilized. Research on the mobility of things has delivered new understandings of place, heritage, museums and archives. Historical and contemporary research has shown how ideas are materialized and mobilized, e.g. in influential accounts of book geographies and travel writing. This connects to a second thematic: 'Geographical Imaginations'. SCG research has interpreted the geographical understandings fostered within specific artistic, visual and print cultures, past and present. Indicative outputs range from a re-appreciation of pre-modern ways of seeing landscape to analysis of contemporary visual and installation art. SCG has also played a leading role in Geography's disciplinary engagement with the museums and archives sector, showing how heritage collections can be opened up to reveal new geographical imaginations; e.g. the 'hidden histories of exploration' in the RGS-IBG collections. Third, 'Aesthetics, Space and Politics'. Key outputs here both interpret the aesthetics of political theory and conceptualize the politics of aesthetic spaces (from art worlds, to consumer cultures, to creative urban spaces and policies). SCG has delivered landmark outputs on 'creative geographies', leading scholarship on both the geographies of creative practices and the role of creative practice in Geography. **Post REF2014** SCG will develop emergent areas of work within these themes. Individually, work in progress will deliver major contributions on the mobilities of evacuation, on film and the visual cultures of exploration, and on Byzantine landscape, for example. Collectively, SCG's focus on 'creative geographies' will be developed into an explicit, institutional engagement with the interdisciplinary 'geo-humanities'. A new appointment is planned in this area for the post REF2014 period.

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Co-ordinating across our groups, the Departmental Research Committee promotes and monitors progress on our strategic objectives. Its members are Director of Research (Chair), the Head of Department, the Directors of Research Groups, Directors of Graduate Studies, Impact Officer, the Chair of Laboratory and Equipment Committee, and the Dean of the Science Faculty. Key foci for the committee are research outputs, income, facilities, time (e.g. sabbaticals), impacts, PGR students and governance. Research Group Directors play a key role in linking our broader strategic goals into group and personal research plans. They organise the internal peer review of all grant applications and liaise with staff to produce the data on publication plans for the Committee's regular review of research outputs. The Director of Research works through the Science Faculty Research and Enterprise Committee, and via links with the other Faculty Deans, to engage Departmental policy with wider institutional strategies and support structures.

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

Our research strategy is underpinned by the recruitment and development of staff of the highest quality. Our academic staff work closely with postgraduates, research staff, technicians, and administrative staff in a vibrant, supportive, and collaborative culture directed towards the sustained generation and dissemination of world-leading research. Our **staff recruitment** in the assessment period was driven by our research priorities. 9 outstanding new permanent academic staff were appointed in key developmental areas, our demographic sustainability aided by 7 of these being at Lecturer level. Adey (Reader, subsequently promoted to Professor), Brickell (Lecturer, promoted to SL) and Pinkerton (Lecturer) have driven forward the development of our new PDS research group and thematic agendas on mobility and security. Blockley, Matthews and Stevens (Lecturers, Blockley promoted to SL) brought crucial expertise in abrupt climatic change and geochronology to CQR's work on palaeoclimatology, earth surface systems and environmental archaeology. Della Dora (Professor), Hawkins and Keighren (Lecturers) strengthened the arts and humanities orientation of SCG and advanced our thematic work on mobilities and creativity. Fixed term appointments, funded directly by external fellowships (13 in total) or via fellowships/prizes gained by established staff, are crucial to the vibrancy of our environment and reflect our commitment to early career researchers and the development of the discipline. During the assessment period, 4 British Academy PDFs were held (2 progressing to Lectureships at Royal Holloway [Brickell & Pinkerton], 2 to posts elsewhere); 6 ESRC PDFs (all progressing to permanent lectureships); 1 Royal Society Newton PDF (progressed to post at UNCTAD); 1 Marie-Curie Fellowship (gained Chair elsewhere in UK); and, with institutional support, 1 Leverhulme ECF awarded (MacLeod). Fixed-term lectureships have workloads in-line with probationary permanent staff, including removal of administrative roles. 12% of our Category A staff in REF1a are on fixed term contracts, including our 1 retirement due in the next five years. Our post REF2014 plans are thus founded on a strong, sustainable body of permanent academic staff. Clear priority areas for future appointments have been established (see section b).

Staff development is also evidenced by internal promotion successes: 3 staff to Professor, 2 to Reader, 5 to Senior Lecturer and 3 from temporary posts to permanent Lectureships. Our approach combines constructive planning and management of research for all staff with resourcing of time, technical support, facilities and training to bring these plans to fruition. Working with their Research Group Director, each academic member of staff prepares an annual Personal Research Plan, in which they consider their aims around publication, funding, external engagement, and impact for that year. Facility or other support needs are also identified. This chimes with institutional processes of staff appraisal, which set these plans within a wider discussion of career ambitions, intellectual trajectories, training needs, and academic commitments. As elaborated in Section d), all staff are assisted in research funding applications through rigorous internal peer-review, managed by Research Group Directors. Our workload modelling supports early career staff (e.g. through reduced teaching and/or administrative loadings for probationary staff), those managing large research grants, and those with large PGR supervision loads. Sabbatical leave supplements externally funded fellowships and leave periods in order to deliver consolidated time for research activity, including proposal writing, publishing and impact activities. All staff are eligible to apply for a one term period of sabbatical leave after eight terms of service; leave can also be 'mortgaged' to achieve longer periods of research focus. In 2008-13 28 periods of leave were approved and successfully completed. Heads of Department can apply for twelve months leave at

the end of their term of office, reflecting the exceptional demands placed upon that post-holder.

All staff benefit from our research group structure, with Group Directors playing a key role in **mentoring** at all levels. Early Career Researchers are also mentored by a Probationary Advisor, with at least four meetings per year focused on work plans, cv development and more general issues of well-being, with formal reports made to senior management at annual intervals. New staff undertake a full induction and training programme, including not only facilities and operational matters but opportunities for interdisciplinary collaboration. Academic and research staff at all levels are also eligible for the institution's inter-disciplinary mentoring schemes, including the 'Women in Science' scheme focused on supporting women and ensuring effective advice and action on the gendered structures governing research careers. All academic and research staff can address identified training needs through the 'On Track Researcher Development Programme', a series of approximately 15 workshops per year (on e.g. grant writing, working with the media, project management) led by a mix of external facilitators and internal experts.

The Department is **committed to equality and diversity** in all that we do. Royal Holloway actively endorses the seven principles outlined in the 'Concordat to Support the Career Development of Researchers' and has policies and practices at both institutional and departmental level designed to facilitate full implementation, for example: mandatory training for all members of selection panels including equal opportunities training, equitable treatment for part-time and fixed-term staff, and a clear and equitable promotions process. There is a comprehensive annual equality and diversity data monitoring and review exercise. Royal Holloway's Women in Science (WiS) Action Plan (2010-13) is countering barriers to women's achievement in our science departments, including through the highly successful mentoring scheme discussed above. The institution achieved Athena SWAN Bronze status in 2010. The Department's own in process application sets out a detailed action plan for the post REF2014 period to ensure an inclusive culture in which women and other underrepresented groups can advance to the highest levels. In regards to gender, at the census date 25% of our Professors are women, 30% of our Academic Staff; in our RAE2008 submission 0% of our professoriate were women and 28% of our Category A staff.

Our commitment to staff includes our **management of research integrity and safety**. All Departmental research is subject to ethical review and risk assessment. PIs, individual staff or PGR supervisors oversee the completion of ethical review and risk assessment forms as appropriate. Risk Assessments are monitored and approved by the Technical Operations Manager. The Departmental Research Committee oversees ethical review, with referral to the institutional Ethics Committee and further external ethical review as appropriate.

ii. Research students

Our well-established and vibrant Graduate School is at the heart of our research environment. It also shapes the wider research base as our students take up posts elsewhere (at 23 universities, 2008-13). From a comparatively high base, PhD completions per annum for REF2014 are 67% greater than for RAE2008. Our 96 PGR students at the census date indicate our readiness to increase completion numbers post REF2014. We have gained **RCUK funding** to build a PGR community of critical mass and the highest quality. Just under 40% of our students are RCUK funded. From 2008-13 we gained 42 RCUK PhD awards: 18 AHRC, 17 ESRC, 5 NERC or NERC-ESRC and 2 EPSRC. We have secured and enhanced this strategy post REF2014 through establishing our place within Doctoral Training Centres / Partnerships across all our research foci. In the social sciences, from 2011 we have led the Human Geography pathway in the ESRC's South East DTC and helped to shape its interdisciplinary pathway in Environment, Energy and Resilience. In the arts and humanities, cultural/historical geography and environmental archaeology formed an integral part of Royal Holloway's AHRC Block Grant award (2009-13) and are key subject areas in the Royal Holloway led 'TECHNE' Doctoral Training Consortium, which will fund 176 AHRC PGR students over the next 5 years. In the natural sciences, NERC's London DTP will significantly enhance our unique Quaternary Science MSc provision and PGR community through its 120 awards over the next 5 years. The EPSRC DTP at Royal Holloway further supports our work on security and communication technologies. **Collaborations with non-academic partners** have been central to our RCUK funding strategy (36% of studentships were collaborative), aiding not only the resourcing of PGRs but also their training and employability. The strength and breadth of these collaborations, including with non-HE partners now leading on the

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allocation of awards, ensures that our outstanding performance is sustainable. We also prioritise the recruitment of **high quality international students** with strong funding packages (including from SSHRC [Canada], National Science Council [China], and a range of governmental sources). For both UK and international students, Royal Holloway has committed significant additional resources, e.g. with new fully funded studentships addressed to strategic priority themes including security, mobility and creativity. Dedicated departmental funds further support PGRs presenting at conferences and PGR led workshops and symposia.

We provide our PGR students with **outstanding training and developmental support**. In line with the institution's Code of Good Practice for Research Supervision, all students are assigned both supervisor and advisor. Collaborative students have supervisors from partner organisations too, with supervisory arrangements and facility access agreed in advance. Supervisors meet formally with students once a fortnight to review progress and update goals / action points; advisors monitor overall progress and relationships between supervisor and supervisee. Formal annual review is supplemented by a rigorous upgrading process after 18 months (or equivalent for p/t students). Our research group structure is designed to ensure the vertical integration of PGR students beyond their supervisory teams. In formats appropriate to each group, fortnightly 'surgeries' and seminar series are attended by all group staff and students, educating students in presenting their own work and critical engagement. PGR students receive generous access to labs and technical support, dedicated workspace, ICT provision and research libraries within Royal Holloway, the UoL and London's national facilities (e.g. British Library). We deliver structured but tailored training programmes, monitored via personal research training logs. Generic skills are developed by a programme of workshops based on Vitae's Researcher Development Framework, organised by faculty, and complemented by online courses from the Epigeum Research Skills Master Programme. Advanced skills training is delivered via our own research training courses and via DTCs / DTPs. To aid career development, mentored teaching opportunities are available and matched to Higher Education Academy accredited training in pedagogy in Royal Holloway's programme in skills of teaching to inspire learning (inSTIL).

The high quality of our PGR environment is demonstrated by excellent completion rates, by the **recognition of our PGR research outputs and by the employability of our students**. Between 2008-13 our PhD student research generated 77 peer reviewed articles in 52 different journals, including Annals of the AAG, Environment and Planning A and D, Geography Compass, The Holocene, Journal of Historical Geography, J. of Quaternary Science, Mobilities, PNAS, Political Geography, Progress in Human Geography, Quaternary Science Reviews and Transactions IBG. Evidencing our influence on the wider discipline, completed students gained research posts, teaching posts or lectureships at 23 different universities in the UK and abroad 2008-13.

d. Income, infrastructure and facilities

Our research is enabled through world-class infrastructure and resourcing. We increased our annual **research income** by 86% compared to our RAE2008 submission. Our strategy is to use such income in four ways. First, we use it to establish **large research programmes and consortia**, bringing together innovative multi-disciplinary teams and demonstrating the role of geographical research in addressing major research challenges. In this endeavour we draw upon the dedicated support for applications and grant management from the Major Grant Set-Up Manager in Royal Holloway's R&E Department. Exemplary is our NERC funded, multi-disciplinary research on the 'Response of Humans to Abrupt Environmental Transitions' (RESET) (Consortium Project; £3.4m, 2008-13; Lowe PI / Project Co-Ordinator, Blockley CI / Director of WP6). Its construction of a 'tephra lattice' for Europe transforms the capacity for environmental and archaeological records to be synchronised so that we can analyse how our ancestors coped with rapid changes in climate during the last 100,000 years. Second, we design **research grant projects** that deliver innovative, agenda-setting, focused research activity, collaborations and outputs. Indicative examples include: Driver's AHRC-funded project on 'Hidden Histories of Exploration' (£169k, 2008-9) that analysed the RGS's visual archives to challenge and complicate hegemonic understandings of exploration and its cultures; Stevens' NERC-funded research on 'Dust Storms and Chinese Loess Sources' (£329k, 2011-14) that pinpoints the sources of the aeolian sediment on the Chinese loess plateau, thereby advancing wider science on atmospheric dust as a critical driver of climate change; and Brickell's ESRC-DFID funded project on 'Lay and

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Institutional Knowledges of Domestic Violence Law' (£196k, 2012-14) that develops a critical analysis of citizenship and the home, advances methodological innovation with participatory video, and will produce a major monograph in the RGS-IBG Book Series post REF2014. Third, we use **fellowship and prize funding** to support individuals in project initiation and completion, as well as career development (see section c). Notable successes in the period include Leverhulme Major Research Fellowship (Driver), Leverhulme Prizes (Lambert & Adey) and AHRC Fellowship (Cresswell), as well as 13 Early Career and International Mobility Fellowships. This funding is directed at researcher development – supporting our own researchers and the reproduction of the wider disciplinary base – and the delivery of outputs requiring sustained research time (e.g. on 'evacuation' and 'visual cultures of exploration' in our post REF2014 plans). Fourth, we use smaller **grants for innovation and research development**. For example, Hawkins' AHRC-funded 'Experimental Methods for Exploring Environmental Encounters' (£32k, 2013-14) is focused on the cultural value of art concerned with environmental change and designed to progress to a larger project on art and environmental citizenship post REF2014.

Our research income generation is supported by **robust management processes**. Grant applications are developed through both Personal Research Plans and Research Group discussion, helping to formulate topics, the form, purpose and source of funding. A dedicated Research and Business Development Manager for the Department advises on specific schemes and income diversification. All grant applications undergo internal peer review by the relevant Research Group Director or a designate, including advice on impact plans. The institution's Research and Enterprise Department provides expertise in financial and legal requirements and in post-grant administration to all applicants / award holders. Royal Holloway's 'Research Strategy Fund' supports both small development projects and the creation of large consortia bids.

The Department possesses as diverse and comprehensive Quaternary Science **facilities** as any Department in the UK. Specialist micromorphology, luminescence, tephrochronology, palaeoecology and environmental chemistry laboratories enable geochronological and palaeoenvironmental research of the highest quality. Previous SRIF investment of £1.5m to establish and update these facilities, as well as to access the isotope labs of the Earth Sciences Department, has been developed by major institutional equipment purchases including the OSL Risø dating systems (£468k) that are essential to Armitage's work on the geochronology of human migration out of Africa and Stevens's on Chinese loess. Our facilities in tephrochronology and micromorphology are used for training external UK and overseas researchers, and enhanced by strategic partnerships (RHOXTOR with Oxford, University of London Centre for Micromorphology with QMUL). We possess internationally important comparative collections of fossil beetles and Palaeolithic archaeology. In Human Geography, our state-of-the-art HEFCE-funded Qualitative Methods Laboratory and Digital Studio provides the hardware and software for the participatory video based research of Brickell and Mistry, as well as for our wider range of qualitative research analyzing textual, visual and sonic materials. The laboratories are staffed by five technicians and line managed by the Technical Operations Manager. All aspects of our research infrastructure, including the prioritising of equipment purchases, are overseen by the Laboratory and Field Equipment Committee, whose Chair sits on Research Committee. All our research is enhanced by office, IT and library **infrastructure** of the highest quality, both on our Egham campus and at Royal Holloway's central London buildings in Bloomsbury. Notable developments during the assessment period include the institution's research information system and depository as part of its open access policy to research dissemination. Looking forward, scheduled for completion during 2015 Royal Holloway is investing £35m in a new 10,000m² library building at the heart of the campus, with 24/7 access, dedicated postgraduate research spaces, environmentally controlled archive spaces and IT infrastructure able to meet current and future digital demands.

e. Collaboration and contribution to the discipline or research base

Our research strategy prioritises collaboration and agenda setting within the wider research base. These goals are recognised within research group strategies, personal research plan review and appraisal processes. The results are seen in leadership of multi-institutional, interdisciplinary and international research collaborations; in the significant contributions we make to our discipline and cross-disciplinary research areas; and in our collaborations beyond the academy.

As noted in section d) above, we have **led major interdisciplinary research programmes and**

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consortia, bringing together innovative multi-disciplinary teams and demonstrating the role of geographical research in addressing major research challenges. For example, the NERC funded RESET Consortium created a team from Geography, Archaeology, Earth Sciences / Volcanology, Human Palaeontology and Oceanography, based at four institutions – Royal Holloway, the Natural History Museum, Oxford and Southampton – and enrolled international collaborators based in 107 research units across 26 countries. Also indicative is our leading of major research grants within RCUK strategic research programmes: on ‘Diasporas, Migration and Identities’, where the ‘Fashioning Diaspora Space’ project (AHRC, £500k, 2007-10, PI Crang, Driver) brought fashion and textile historians and the drawing arts into dialogue with cultural and historical geography in a collaboration with the V&A Museum; and on ‘Landscape and Environment’, where the ‘Inca Ushnus’ project (AHRC, £500k, 2007-11, Willis, Branch & Kemp) set human and physical geographers to work with the British Museum on landscape symbolism, materiality and ritual in the Andes. We developed our central role within the Leverhulme-funded three-phase programme of research on the AHOB: in 2009 AHOB2 was succeeded by AHOB3 (£1.1m; PI Stringer [Visiting Professor from NHM], Principal Collaborating Specialists Candy & Schreve). Often, our **research consortia create international collaborations**, ensuring both international influence and an appropriate politics of knowledge making. For example, our EU-funded project (FP7, €1.9m, 2011-15, PI Mistry) on ‘Community Owned Best practice for sustainable Resource Adaptive management in the Guiana Shield, South America’ (COBRA) created a consortium of 10 partners and 30 project staff across Europe and S. America, including four universities (Royal Holloway, Open University, Politecnico and Università di Torino). Our ESRC-DFID funded ‘Choices’ project (£283k, 2011-13, PI Kleine) on ‘Ethical consumption and public procurement in Brazil and Chile’ constructed a team with both local universities (Universidade Federal do Rio de Janeiro, Brazil; Universidad Diego Portales, Chile) and NGOs from all three countries involved in the research.

Outwith specific projects, **strategic alliances and consortia** strengthen our research environment. RHOXTOR (‘Royal Holloway and Oxford Tephrochronology Research Network’; Chair Blockley) established a partnership to lead on tephra analysis. A partnership with Lanzhou University China is focused on our palaeoclimate loess research. The University of London Centre for Micromorphology (with QMUL) provides exceptional facilities and training in microscopic analysis of soils and sediments. As discussed above, we have now established leading roles in three cross-institutional Doctoral Training Centres / Partnerships: the ESRC’s South East DTC, the AHRC’s Royal Holloway led TECHNE Consortium, and NERC’s London DTP. SCG’s research on cultural creativity and heritage is supported by Royal Holloway’s core membership of knowledge exchange consortia focused on London’s cultural sector, notably The Culture Capital Exchange and AHRC’s London Knowledge Exchange Hub for the Creative Economy. Our research also drives **funded research networks, workshop and seminar series**. EU-COST Action Programme support (€68k, 2010-13, Blockley CI) for the ‘INTIMATE’ group (‘Integrating Ice Core, Marine and Terrestrial Records’) advanced our modelling of mechanisms of past environmental change. An ESRC seminar series organised with Oxford on ‘The New Geopolitics of the Polar Regions’ (2010-11; CI Dodds) explored the impacts of climate change on polar geopolitics, involving and addressing academics and policy makers. An EU-EDULINK Grant (£50k, 2008-10, Kleine & Unwin) linked UK, Finnish, Swedish and Danish universities with universities in Ghana, Mozambique, Kenya and Senegal to develop joint ICT4D teaching resources. The Department also continues to play a leading role in supporting and organising the seminars of the London Group of Historical Geographers (Driver, Keighren; with QMUL).

Formal **collaborations with non-academic researchers and stakeholders** greatly enrich our research environment. They ensure that our research reaches potential beneficiaries and that its formulation and conduct are informed by expertise from beyond the academy. Between 2008 and 2013 we undertook funded research in collaboration with 44 external organisations. These ranged from major research grants with Independent Research Organisations, to partnerships with stakeholders in research projects, and collaborative doctoral awards. Indicative examples of collaborators include: museums and archives (e.g. British Library, Museum of London, RGS-IBG, Natural History Museum, Science Museum); businesses and corporations (e.g. The Body Shop, Hanson Quarry Products Europe Ltd., Microsoft, Ordnance Survey, Oslo Lufthavn AS); UK government departments and bodies (e.g. British Geological Survey, DFID, FCO, MoD, Natural England); international bodies (e.g. UN-Habitat); and not for profit organisations, charities and

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NGOs in the UK and abroad (e.g.: The Arts Catalyst, Ciudadano Responsable [Chile], Equipe de Conservacao da Amazonia [Brazil], Ethical Consumer Research Association, the Royal United Services Institute, Street Child Africa and WaterAid). Partnership arrangements are also used to engage stakeholders in our research more generally; e.g. our Centre in ICT4D has partnerships with 40 organisations spanning the private sector (e.g. Microsoft, Nokia), civil society (e.g. Oxfam, Practical Action) and international and governmental agencies (e.g. GIZ, IDRC, ITU).

Interdisciplinarity is central in much of this activity. We are committed to Geography as an intellectual pursuit that challenges modern disciplinary divisions. In addition to external consortia and networks, our staff play leading roles within the interdisciplinary initiatives of Royal Holloway. Geography staff champion two of the institution's five strategic interdisciplinary research themes: 'Security and Sustainability' (Dodds) and 'Identity, Place and Mobility' (Cresswell). Indicatively, to date 60% of the fully funded interdisciplinary PhD studentships supporting these themes involve Geography. Our 'Centre in ICT4D' has benefited from a UNESCO Chair and formal recognition as an interdisciplinary centre, bringing together researchers based in Geography, Computer Science, Management and Politics & International Relations (PIR). Royal Holloway's 'Centre for Research into Sustainability' (CRIS) is a joint initiative between the School of Management and Department of Geography. The institution's 'Humanities and Arts Research Centre' (HARC) has funded fellowships and seminar series focused on security (Dodds 2010-11) and the geographies of hospitality (Dikeç & Brickell 2011-12).

Our wider influence is also enabled by **leadership within the discipline and wider research base**. **Recognition** of our influence includes election to learned societies (Driver, Fellowship of the British Academy; Crang, Dodds, Driver & Simon, Academicians of the Social Sciences; Schreve, Fellowship of the Society of Antiquaries) and medals and awards from the RGS-IBG (Victoria Medal, Lowe, 2011; Gill Memorial Award, Willis & Dikeç, 2009 & 2012), Association of American Geographers (Dodds, Richard Morrill Outreach prize, 2008), Geographical Association (Cresswell, Excellence in Leading, 2009), British Society for Geomorphology (Candy, Gordon Warwick Award, 2009) and Quaternary Research Association (Candy, Lewis Penny Medal, 2011). We **shape the agendas of key professional associations**. For the RGS-IBG our work includes Council membership (Driver & Willis [Hon. Sec. of Research and HE Committee]), organisation of three major public exhibitions at the society (Crang, Driver & Hawkins), and Research Group leadership of DARG (Kleine, Treasurer; Jones PG rep.), HGRG (Hawkins, Secretary; Keighren, Web Editor), PGRG (Pinkerton, Communications), PyGyRG (Kleine, Comm.), SCRG (Adey, Chair; Hawkins, Comm.; Hunt PG rep.), UGRG (Mould, Treasurer) and WGSG (Brickell, Treasurer). Elsewhere, leading roles include the Geologists' Association (Schreve, President and Senior Vice President), the Quaternary Research Association (Lowe, President; Schreve, Vice-President; Candy, Publications and Meetings Secretary; Blockley, Co-Leader of Tephra Research Group), the International Union for Quaternary Research (Blockley & Schreve leading International Focus Groups), the International Association of Sedimentologists (Stevens, Bureau Member) and the British Society for Geomorphology (Thorndycraft, Executive Committee). We influence research investment as **RCUK panel and peer review college members** for AHRC (Crang, Driver, Gilbert, Hawkins), ESRC (Panels: Crang, Dodds; Peer Review College: Brickell, Kleine) and NERC (Elias, Schreve), as well as the British Academy (Driver, Chair of Geography Group). Staff served on the ESRC-RGS International Benchmarking of Human Geography (Willis on Steering Group; Dodds & Driver as expert reviewers; Crang & Willis as expert panellists). Royal Holloway geographers shape intellectual fields through **journal editing**. In the assessment period, we edited 8 journals -- Cultural Geographies (Cresswell), Geoforum (Willis), International Development Planning Review (Willis), History Workshop Journal (Driver), J. of Historical Geography (Driver), Proceedings of the Geologists' Association (Candy), The Geographical Journal (Dodds), Third World Quarterly (Qadir, HRA) -- as well journal sections, key publication series and reference volumes (e.g. Della Dora, Reviews Editor Environment and Planning D; Elias, Editor in Chief Encyclopaedia of Quaternary Science [Second Edition]; Keighren, Reviews Editor J. of Historical Geography; Stevens, Editor in Chief IAS Special Publication Series). Staff have held 42 Editorial Board memberships. All engage in regular peer review of journal articles, for over 100 different journals in the assessment period.