Institution: The Open University

Unit of Assessment: D34 Art and Design: History, Practice and Theory

a. Overview

This is a multi-disciplinary submission from two faculties of The Open University (OU): Arts (Art History Department) and Mathematics, Computing and Technology (Design). The nature of this cross-discipline collaboration is strengthened through the supporting environments for teaching and research. This is exemplified by the OU's capacity for innovative digital scholarship that is focused on informing and educating the widest possible audiences. Our research activities span cultural, social and economic spheres, from public engagement to design practice, from historical analysis to planning policy. Research income has more than doubled to £2.19m; PhD completions have increased since 2008; and Design and Art History are key members of two recently funded Arts and Humanities Research Council (AHRC) consortia for doctoral research.

The distinctive feature of our **Design** research is that it centres on the creative, technical and social dimensions of design and innovation which are generic across domains. This is the core of our enquiry and draws on work in several areas of design including architecture, engineering, product design, fashion, transport, education, health and services.

Our **Art History** research comprises the production of collaborative and individual research with multiple outputs (published, digital, curatorial) and innovative archival monographs. Our themes range across periods from the early modern to the present and embrace aspects of visual culture, art theory, global art history and interdisciplinary scholarship.

Across Design and Art History, we are in an excellent position to exploit new research synergies through shared agendas in Design History and Material Cultures. Research in Art and Design at the OU showcases a distinctive environment, research at the cutting edge of digital scholarship, and cross-disciplinary collaborations between researchers, designers, curators, users and publics. We aim to be a force for change through understanding the past, informing current practice and inspiring future creativity.

b. Research strategy

Since the last RAE our research strategy has built on the 2008 research themes and developed new areas of research and cross-disciplinary initiatives. Appointments since 2008 have supported emerging areas including collaborative design and global art history. In Design History (McKellar) a new Chair is providing an important foundation for cross-disciplinary developments. Strategic aims for the next five years are as follows: First, to create best-practice digital research environments, alongside our campus-based centres and two AHRC centres for doctoral training: 'Design Star', a partnership with Reading, Loughborough, Goldsmiths and Brighton; and CHASE (Consortium for Humanities and the Arts South-East England), a partnership with The Courtauld Institute, East Anglia, Essex, Kent, Goldsmiths and Sussex. Second, we aim to establish the OU as a centre of excellence in understanding reflective processes of making and creating in interdisciplinary material cultures: past, present and future. Third, we plan to develop our open digital archives in order to support both the dissemination of research projects and the innovative interplay of physical and virtual 'objects' in understanding art, architecture and design.

Art History
Art History's research strategy promotes both collaborative and individual research projects and, since 2008, has encouraged the development of inter-period and cross-disciplinary research synergies and collaborative initiatives, enhanced by strategic staff appointments. We have significantly widened our engagements with the museum and gallery sector, and with the work of practising artists. International research projects involving collaborative symposia and publications have increasingly formed part of our strategic vision (**Benton**, **Christian**, **Edwards**, **Perry**, **Wainwright**). Art History also co-leads the Arts Faculty's interdisciplinary and cross-period Gender in the Humanities Research group (co-chair **Perry**), which has initiated a series of collaborative seminars leading to a forthcoming cross-disciplinary publication in the Arts Faculty on Gender, Knitting and Stitching, with major contributions from both Art History and Design. In 2013 we

launched a major peer-reviewed online journal the *Open Arts Journal,* featuring collaborative interdisciplinary work. Our research in Art History is organised around four groupings:

(i)Cross-Cultural and Global Art History has produced significant publications and international collaborations, including **Wood**'s *Modernism and the World of Art'* and **Wainwright**'s pioneering *Timed Out.* As part of our future strategy we seek to expand and enrich this growing area of cross-cultural research. Wainwright has led three major international initiatives in this area, supported by HERA and AHRC grants, and two large-scale AHRC bids are in progress to develop his 'Geographies of art history' projects.

In the early modern period there are major 'artists' networks' projects coming to fruition in the fields of Netherlandish (Kim **Woods**) and Byzantine studies (Angeliki **Lymberopoulou**). A substantial Byzantine research project (led by **Lymberopoulou**) is supported by a Leverhulme network grant with major outputs forthcoming in 2014. We have expanded our research programme in Italian Renaissance collecting, the reception of antiquity, and global exchange through the appointment of **Christian** in 2012 and the appointment of **Clark** in 2013. This development is supported by Emeritus professors Catherine **King** and Diana **Norman**, and exemplified in **Christian**'s award-winning monograph *Empire Without End: antiquities collections in Renaissance Rome.*

(ii) History of Architecture and Design encompasses 17th- and 18th-century architectural practice and theory (**McKellar** and Susie **West**) as well as modern architecture and design (**Benton**). Since 2008 outputs have included **Benton**'s internationally recognised publications and catalogues on the work of Le Corbusier including *Le Corbusier Secret Photographer*, and **McKellar**'s Paul Mellon funded *Landscapes of London*. **McKellar**, **West** and Clare **Taylor** have helped to place 18th-century architecture and design at the heart of this research grouping (both **West** and **Taylor** have monographs forthcoming for 2014). Research synergies have been encouraged between architecture, design and other disciplines, evidenced in recent collaborative research projects including an edited collection *Placing Faces: The Portrait and the Country House in the Long Eighteenth Century* (**Perry**, **Barker** and **West**), and in the modern period, **Perry**'s monograph *Playing at Home: the house in contemporary art*.

(iii) We have also initiated and led major research projects in ***Eighteenth-Century Art, Culture, and Design***. The Department has established a reputation for research on portraiture, gender and society, led by **Barker** and **Perry**, including Perry's *The First Actresses* exhibition and book project, and edited collection *Placing Faces*. **Barker**'s work on 'sentimentalism' as a cultural category has featured in a series of journal articles leading to a monograph in preparation for 2014/15.

(iv) Modern and Contemporary Art and Theory continues to be an important part of our strategic vision, developed and expanded over the last six years through an extensive range of publications, gallery collaborations (see the Open Arts Archive – www.openartsarchive.org.oaa and the exhibition Crystal World) and new contributions to curated exhibitions, planned for 2014/15. The internationally acclaimed series of three edited volumes of *Art in Theory* (led by **Wood** and Charles **Harrison**) is to be continued in a forthcoming (2014) volume edited by **Wood** and **Wainwright**, *Art in Theory: the west and the world*. The history of photography and lens-based media features prominently in this research cluster, represented by **Edwards**' series of journal articles and monograph *Martha Rosler's The Bowery* and his forthcoming book on patent law in 19th-century photography. Collaborative research projects in modern visual culture, material culture and gender studies across disciplines have also been supported, leading to publications and symposia (see 'e' below).

Design
Our research strategy centres on the OU's signature design research into general principles across domains of design practice, focused on conceptualising design in terms of evolving processes and transitions. Our plans for 2014–19 include enhancing collaboration in research and practice, developing new methods for design in complex contexts, and creating a sustainable research environment through digital scholarship leveraging interdisciplinary collaboration particularly in the AHRC Design Star consortium.

In RAE 2008, Design's strategy anticipated a progressive integration of physical and digital worlds. This has since been evidenced in examples ranging from the generative design of additively manufactured jewellery, to physical and virtual testing in engineering design. In particular plans to

address computational design, generative methods, as well as facilities for prototyping and 3D-scanning, have been realised. Projects such as 'Design synthesis and shape generation' (AHRC) and 'Designing with vision' (Leverhulme) were cross-disciplinary (product design, architecture, engineering and computation) collaborations across UK research centres.

From 2008 key themes have endured while new areas have emerged, supported by several new appointments to maintain research capacity. The themes of Design Processes, Design Ecologies and Complexity, for example, have evolved from the core 2008 themes, while Collaborative Design is a new research area. Dedicated laboratories, established through Science Research Investment Funds (SRIF/2) serve all themes. The research environment for PhD students and staff is well supported and includes university funding for 3 postdoctoral researchers (**Jowers**, **Lim** and **Luck**).

The international dimensions of Design research are a feature of our strategy. Frequent visits to leading research groups worldwide (eg, MIT Boston, Groeningen,TUDelft, Ecole Centrale Paris, TUMunich, Ecole Polytechnique Paris, IIS Bangalore, CMU Pittsburgh, Karlsruhe Institute of Technology and DTI Copenhagen) are complemented by a reciprocal programme of international visitors both from industry and research centres. Forward strategy will consolidate our research themes, develop staff, including doctoral students, and maintain the rising trajectory of research funding, particularly through developing partnerships with research centres, industry, public institutions and charities. Our research will focus on the social and collaborative dimensions of design processes as well as the methods and models for improving design processes for complex products and services. Our research in Design is also organised around four groupings:

(i) *Design Processes* addresses how designers, teams, industries and communities create new products and services. Our design thinking approach, pioneered by emeritus professors **Cross** and **Roy**, has shifted towards social and collaborative processes. **Lloyd**'s work on design meeting protocols (AHRC-funded) and **Luck**'s studies of design practice in teams (EPSRC-funded) have exemplified this shift. Understanding engineering design processes, with extended teams working on complex products, has been transformed through **Eckert**'s research on creativity and change especially in her industry collaborations. We have pioneered new areas such as design ethics (**Lloyd**), functional descriptions in design (**Eckert**) and generative methods (**Earl**) to support visual (**Jowers**) and exploratory (**Lim**) processes in design. **Eckert**'s work on sustainable fashion (with London College of Fashion) continues from the AHRC project on 'Considerate Design' (2007-09). Broad contexts for design processes are studied by several researchers including healthcare innovation (**Fortune**), infrastructure and sustainable innovation (**Dewberry**), transport technologies and systems (**Potter**) and product service systems (**Cook**). Research on generic aspects of design processes includes comparisons across domains (**Eckert** and **Earl**), neuroscience observations on mental activity in designing (**Alexiou** and **Zamenopoulos**), and inclusivity in processes (pioneered by **Luck** and awarded ERC funding for 2013–16).

(ii) *Design Ecologies* examines the connections among design theories, methods and practices at different scales, timeframes and complexities. For example in the context of sustainability, **Dewberry**'s distinctive contribution is how new methods and practices among users, designers, and organisations inform an emerging theory of design transitions (EPSRC project 'Sustainable integrated infrastructure, shock (not) horror'). In the transport context, **Potter** studies how travel behaviours, patterns of use and underlying technologies frame the design transitions to new transport infrastructure especially using electric vehicles (project ELVIS). Potter's extensive collaborations with partners in Milton Keynes is supported by the OU's £16m MK: Smart project (£8m HEFCE catalyst grant) and collaboration with the TSB Transport Systems Catapult. Related research on energy systems by **Cook** and **Potter** examine transitions which arise from innovations in supply side design, especially Smart Grids (Project Falcon). At the domestic scale the user-led design of energy products has been addressed by **Caird** and **Roy** for Carbon Connections. Sustainable ecosystems are addressed in **Thomas**' commissioned research on waste and resources for DEFRA; **Cook**'s analysis of product service systems; and **Eckert**'s EPSRC-project 'Robust hospital environments', which examines hospital refurbishment as a resilient transition against changing climate.

(iii) *Complexity and Design* analyses the design of complex socio-technical systems. Underlying models of complexity are developed by **Johnson** who also examines the central role of policy in the design of complex systems. In the AHRC project (2007-9) 'Embracing complexity in design',

Alexiou, **Johnson** and **Zamenopoulos** explored how designers manage complexity in products and processes. The role of complexity in design transitions in multi-scale and temporal contexts include **Dewberry** on infrastructure design (EPSRC); **Cook** on product service systems; **Alexiou** on sustaining collaborations (AHRC, Connected Communities Programme); and **Zamenopoulos** on intentionality and social processes. The applications of complexity theory, and associated computational methods to design, has been pioneered by **Johnson** in an influential series of EU projects on global systems dynamics and policy, networked learning environments and topological system structures. A comprehensive treatment of complexity and design is presented in Johnson's monograph, *Hypernetworks*.

(iv) *Collaborative Design* focuses on the social aspects of designing such as participatory design, team-based design and studio learning environments, particularly for digital scholarship. This has emerged as a distinct theme since 2008 with **Alexiou** and **Zamenopoulos** being instrumental in establishing the theme through several AHRC projects in the Connected Communities/Digital Economy programmes. **Luck**'s work on inclusivity (ERC 2013–16) will contribute to this theme. **Zamenopoulos**, **Lloyd** and **Lotz** have reframed the methods and tools for collaborative design in virtual teams and immersive studio environments with JISC and EU funding. Education as a collaborative process is the subject of several projects including **Lotz**'s comparison of interaction design in the UK and Botswana, while radical departures in collaborative modes of online graduate education have been pioneered by **Johnson** in his EU-funded ETOILE (Enhanced Technology for Open Intelligent Learning Environments). This has led directly to UniTwin (the UNESCO global consortium of universities, including the OU) forming a Complex Systems Digital Campus.

c. People

i. Staffing strategy and staff development

All academics receive two months research leave annually to advance their research and scholarship. Workload planning during the year prioritises the research agenda in both Art History and Design and further layered support, particularly with research staff development, grants, contracts and dissemination, is available from the Faculty and centrally. Training workshops and seminars on, for example, bidding for funding, research methods, or publishing research have proved valuable in linking researchers across disciplines, research groups and faculties. The OU is committed to equal opportunities for all staff in the progression of their careers, personal development and research; Research skills training, personal growth and development is promoted through seminars and workshops and a commitment to Vitae and Athena Swan. The University has supported collaborations, publications and strategic staffing including establishing a chair in Design History and three postdoctoral researchers.

Art History has made a series of strategic appointments at early and mid-career level (**Christian**, **Clark**, **Wainwright**), building on existing strengths in the 'Early modern' area and developing excellence in new research fields, especially cross-cultural/global art history. The Professorial appointment in Design History (**McKellar**) is to take forward the synergies between Art History and Design, and a professorial promotion (**Edwards**) in the Modern period will develop our research profile in the history of photography. Our strategy has also been to encourage junior and mid-career researchers through careful monitoring, including annual discussions of research plans as part of a CDSA process, oversight by a Departmental Research Steering Group, and individual mentoring by an experienced senior researcher. The strategy for future staffing in Art History will focus on appointments in the two key strands of cross-cultural/global art and architectural and design history, with an emphasis on the modern period.

Design appointments between 2008 and 2013 emphasise research excellence, helping to reorientate themes and challenge their boundaries. In *Design Processes* new staff emphasise engineering design (**Eckert,** promoted Professor in 2013) and architectural practice (**Luck**) as well as generative methods for visualisation (**Jowers**) and 3D prototyping (**Lim**). **Lloyd** was promoted to Professor in 2010. In *Design Ecologies* new staff have shifted core concerns from energy to sustainable innovation in service and system infrastructures, especially in linking supply and demand issues in design (**Dewberry**, **Cook** and **Caird)**. In *Complexity and Design* new staff have embedded complexity theory in design policy and practice (**Cook**) and linked strongly to the *Collaborative Design* theme (**Zamenopoulos**), which also includes a strong cross-cultural

dimension (**Lotz**).

Mentoring is critical for transferring the experience of senior staff to career young academics. Several of our professorial retirements (**Cross**, **Roy**, **Garner**, **Elliott** and **Boyle**) continue to take active roles in supporting our new staff. Workshops and seminars are held weekly. Staff collaborate widely on projects, proposals and publications both within Design, across to Art History and more widely to the University and external centres of excellence.

ii. Research students

PhD research training in Art and Design is a core part of our research culture and continues to be key to our mission to develop new generations of design and art history researchers. The University infrastructure provides essential support in meeting or exceeding the requirements of RCUK and QAA. Each PhD student is allocated two supervisors and a third-party monitor in a pastoral role. Progress is reported formally every six months, with a major probation report and viva after the first year. There is very strong commitment to both part-time and full-time students in Design and Art History. The University's virtual research environment (VRE) integrates the part time and full time constituencies with access to resources, advice and training, independent of a researcher's physical location. **Potter**'s book, *Doing Postgraduate Research*, originated from the doctoral training programme he developed in Design and Technology. It is now used across the OU by the University's 25 Affiliated Research Centres (ARCs) in the UK and abroad and at other institutions. Both Art History and Design (under a 'Management of Innovation' banner) run Masters programmes, each with around 250 students.

The OU validates the ARCs as doctoral training environments, a successful model that enables high-quality research organisations to enrol and supervise research students under OU quality assurance and regulations. Staff from both Design and Art History provide academic support for the programmes at the Architectural Association, one of the largest ARCs with around 30 doctoral and 200 masters students.

The OU has taken centre stage in national developments in doctoral training in Arts and Humanities with roles in two AHRC Centres for Doctoral Training for five years of student entry (2014–19) in the first instance. With institutional investment these Centres will provide four or more doctoral students a year across Art History and Design. The Arts Faculty is a member of the CHASE consortium and Design at the OU has played a leading role in framing the AHRC 'Design Star' Centre, whose vision includes integrating 'practice' in a design PhD, responding to complex societal issues through design, and using digital scholarship to enhance its research environment. The OU's virtual research environment (VRE) lies at the core of both Centres.

Art History currently supports 15 postgraduate students. Rigorous training skills, supervision and mentoring processes are part of the postgraduate support infrastructure, and the expectations and standards are the same for both full-time and part-time postgraduate research student constituencies. However, flexible supervision and training are offered in particular for part-time students. The Arts Faculty caters fully for the needs of part-time students, and has been active in developing the VRE which is available to all doctoral students. The Faculty also runs a fully funded residential conference every year, open to all PhD students but geared particularly to part-time needs. Art History postgraduates attend the regular programme of seminars (held in Milton Keynes and London) related to each of the research clusters listed above. They give progress papers to our annual postgraduate research conference, attend Art History events and conferences held in museums and galleries across the UK, and make full use our extensive digital resources including the Open Arts Archive.

Design places doctoral research at centre of its research culture. Currently 16 full-time PhD students are registered in Design, complemented by twice that number studying part time in practice-based environments. This cadre of part-time students embedded in practice is a feature of our research environment. There is a rising trend in student numbers since 2008, which we will consolidate with the Design Star Centre. Students are supported in specialist groups. For example a Design Transformations Group (**Eckert** and **Earl**) runs monthly sessions for full-time and part-time (online) students to analyse papers, meet visiting academics (in 'meet the author' reading groups), prepare for upcoming conferences and for career development. The established weekly Design seminar series provides a forum for visitors, staff and students to present new findings.

These seminars are available online in a web-streamed archive. Students take an active part in the wider research community through visiting international centres and industry partners as well as presenting at international conferences (e.g. International Association of Societies of Design Research (IASDR); ASME Design Theory and Methodology (DTM); and ECCS (European Conference in Complexity Science). This outward-facing strategy for doctoral training will be strengthened by the collaborative ethos of the AHRC Design Star consortium.

d. Income, infrastructure and facilities

The research income profile shows a strong positive trend 2008–08 (£194k); 2009–10 (£442k); 2010–11 (£567k); 2011–12 (£424k); 2012–13 (£558k), totalling £2.19m over the REF period, which is more than double the total income reported to RAE 2008. This external funding is complemented by departmental and faculty support for laboratories, conference presentations, visiting programmes and seminar series.

Laboratory facilities focus on applying both digital and physical representations in a full design cycle through generation (rules), analysis (tools), prototyping (additive manufacture) and shape capture (3D scanning). These are maintained and updated following SRIF/2 investment (Fab Lab, Design Observatory, Media Lab). They also support research across the faculty, especially in Computing and Materials Engineering. In Art History the Open Arts Archive received a start-up grant of £52,000 from the MLA (Museums, Libraries and Archive Council), and provides a resource across all our research areas, including a growing archive of interviews and projects with contemporary artists.

Art History has substantially increased income from a diverse range of grants and competitive funding sources to support projects in each of its research groupings. The Department has won six separate Leverhulme awards contributing over £360k in the period, including two Early Career Prizes (Carol **Richardson**, **Wainwright**), three fellowships (Piers **Baker Bates**, **McKellar** and **Edwards**) and the largest network grant ever awarded (for the Byzantine project 'Representations of hell in Cretan frescoes', **Lymberopoulou**). In addition, **Wainwright** has won substantial funding from HERA for his collaborative projects with European partners. These include his 'Creativity and innovation in a world of movement' (total award €1m) for which he is the PI; and an AHRC network grant 'Sustainable art communities'. **Christian** was awarded a two-year Alexander von Humboldt Fellowship. The University has provided strategic financial support for these collaborative initiatives, and the Arts Faculty supports regular seminar programmes and conferences, open to our associate lecturers (the OU's part-time tutors) and postgraduates.

Design income comes from diverse sources, including research councils, charitable foundations, industry and government. *Design Processes* has received significant funding for new tools and methods for supporting design processes. For example **Earl** and **Garner**'s pivotal studies in integrating digital and physical representations in design processes received AHRC and Leverhulme funding of £460k. Analysis of design and innovation processes has attracted a range of funding totalling nearly £350k. This includes **Eckert**'s industry funding from Volvo group and EU project 'CONVERGE' on design processes in supply chains; and **Fortune** and **Savory**'s National Institute of Health Research study on 'NHS innovation'. New project starts in 2013 include **Luck**'s ERC-funded 'Universalism, universal design and equitable access to the designed environment' (total £436k with Goldsmiths). Strategies for future funding are to blend RCUK and industry funding.

Several projects in *Design Ecologies* examine sustainable innovation in infrastructure, services and systems. They have attracted funding of £160k in the period, and include **Dewberry**'s EPSRC funding for 'Sustainable integrated infrastructure'; **Eckert**'s EPSRC funding for sustainable hospital refurbishment; and **Thomas**' DEFRA funding on 'Waste management'. Transport systems design is supported by a diverse range of funding totalling £150k including **Potter**'s Transport for London funding for 'Towards smart business travel'; EU funding for 'U-STIR'; HEIF funding for the Milton Keynes part of ELVIS ('Electric Vehicle Infrastructure Systems'); and Cook's funding from LowCarbonUK for 'Project Falcon' on Smart Grids. Looking forward, **Potter** was instrumental in winning, for the OU, the £8m Smart City Catalyst Grant from HEFCE, which starts in 2014 as a national demonstrator of smart city technologies enabled by a city-wide big data ecosystem, and has attracted a further £8m of matching funding from partners. **Potter** also contributed to the

successful case for Milton Keynes as the home for the new TSB Transport Systems Catapult. **Caird**, **Potter** and **Roy**'s research on demand-side design in energy systems includes funding from Carbon Connections on 'Low carbon living' (£110k), and the Energy Saving Trust on 'User-centred design of domestic heat pumps'. The future funding strategy is to maintain diversity from government, charities and industry.

Extensive funding in *Complexity and Design,* totalling £520k in this REF period, was received by **Johnson** for developing complexity theory alongside strategic research networks in projects ASSYST, 'Global System Dynamics and Policy' (GDSP); 'ETOILE'; and 'TOPDRIM'. In addition, complexity research by **Alexiou** and **Zamenopoulos** with AHRC funding for 'Embracing complexity in design' and 'Complexity in the creative economy' has led to significant funding from the AHRC under the Connected Communities programme. The funding strategy is to maintain focus on EU funding.

Research in *Collaborative Design*, particularly in the areas of co-design and community-led design by **Alexiou** and **Zamenopoulos** has attracted a significant funding stream (£175k to date) from the AHRC Connected Communities programme. Various other projects have investigated collaborative, studio and atelier modes of design and design education with funding from the EU for **Garner** (EU), **Lotz** (Leverhulme) and **Caird** (JISC).

e. Collaboration or contribution to the discipline or research base

The extensive range and scope of regional, national and international collaborations with universities, research institutes, industry, charities and public organisations is driven by an imperative to communicate with and engage the widest audiences with our research, which is itself part of the wider mission of the OU. Collaboration is pivotal to success with external funding and doctoral training; it embraces cross-disciplinarity and frames links to curatorial and design practice.

Art History
The Art History Department has significantly expanded its collaborative partnerships and joint research projects with art institutions and universities locally, nationally and internationally. The Open Arts Archive, founded in 2010, provides open access to collaborative events and research projects co-organised and/or produced with 20 galleries and museums across the UK. There are 250 separate events, including conferences, exhibitions, seminars and artist interviews, archived and available as a research resource for our students and the wider public including: 18 collaborative conferences organised around major Tate exhibitions since 2002; conferences and seminars at the Barbican, Baltic, the V&A, Yorkshire Sculpture Park, Walker Art Gallery, the National Portrait Gallery and the Bowes Museum; 11 seminars, artist interviews and podcasts with Milton Keynes Gallery since 2005, and shared events with other institutions across the UK. Current work is developing this substantial research resource through collaborative partnerships with smaller galleries across the UK (e.g. Site Gallery, Sheffield, and The New Art Exchange, Nottingham); and artists' podcasts and shared online platforms and events for new research projects. A new MA has also integrated use of the research material on the Open Arts Archive into its core teaching strand.

As a distance teaching institution, development of collaborative partnerships and research facilities to provide a global online resource for our student community are priorities. These collaborations have included a series of research-based curated exhibitions with major museums and galleries, including the National Portrait Gallery, the Royal Society, Walker Art Gallery (Aubrey Williams), as well as Corbusier and Photography at CIVA, Brussels and the Musée des Beaux Arts La Chaux de Font. **Wainwright** also represented the Department as co-chair of the Curatorial Laboratory for the 2010–11 Asia Triennial in Manchester. Art History also launched a peer-reviewed online journal *Open Arts Journal* in 2013, providing a further open access research resource. Two themed issues are published annually, and the first issue on 'Cosmopolitanism' (June 2013), designed to enrich and develop the 'Cross-cultural and global art history' research theme, was launched with a conference open to all postgraduates and associate lecturers. Several international research collaborations with both universities and galleries have also been steered by **Wainwright**, including his AHRC-funded network programme 'Sustainable art communities: creativity and policy in the transnational Caribbean' (with the University of Leiden); his 'Disturbing pasts: memories, controversies and creativity' networking project (with Tropenmuseum, Amsterdam, and Museum of

Ethnology, Vienna (HERA and European Science Foundation)); and his 'Creativity and innovation in a world of movement' (HERA).

Since 2008 members of the Art History Department have given a total of over 98 invited lectures and conference papers, of which 9 have been keynotes and 72 have been outside the UK (including Benton 25, Barker 4, Christian 7, Clark 4, Edwards 7, Perry 8, Wainwright 8, Wood 3). Members sit on six editorial boards (including *Third Text*, *Oxford Art Journal*, *London Journal*, *Australia and New Zealand Journal of Art*), and have organised or co-organised 33 collaborative conferences and symposia since 2008. **Edwards** is also on the editorial board of *Historical Materialism,* which has commissioned 20 scholarly volumes on aspects of contemporary culture, produced 19 edited journal issues, and organised 7 international conferences.

Members have also held four visiting professorships outside the UK (**Benton**, **Edwards**) and **Benton** is visiting professor at the Ecole Polytechnique Federal à Lausanne. Four members of the Department have been members of the AHRC Peer Review College and/or panel members (**Wainwright**, **Edwards**, **Perry**) and the Department is well represented on national and international advisory and peer review panels, including European Science Foundation and Tate Cross-Cultural Advisory Panel (**Wainwright**); D34 REF panel and 2013 Conseil Administratif Foundation Le Corbusier (**Benton**); London Advisory Committee for English Heritage (**McKellar**), Milton Keynes Gallery Bursary and MK Open Panel (**Perry**).

Design
Research in Design pursues a collaborative approach with academic centres and practice, particularly through international networks supporting interdisciplinary research. Research projects frequently include producer and user partners. Collaborations range from technology companies (Volvo and GKN), consultants (Arup), local and regional bodies, national and international policy makers, as well as organisations such as NESTA, charities and the UK Parliament (e.g. the All Party Parliamentary Design and Innovation Group).

Numerous academic collaborations, nationally and internationally, strengthen each of the four Design research themes. We select some examples: *Design Processes* – Goldsmiths, Central St Martin's, Cambridge, Leeds, MIT, CMU, Ecole Central Paris,TUMunich; *Design Ecologies* – UCL, Newcastle, Groeningen, Cambridge; *Complexity and Design* – UCL, Warwick, Ecole Polytechnique-Paris, ETH Zurich; *Collaborative Design* – Cardiff, UCL, Kent, Birmingham. The distinctive expertise of Design researchers is sought for international PhD panels, reviewing for international research councils, conference keynotes, invited papers at workshops and conferences, as well as serving on scientific committees.

The Design group organises a regular seminar series with web streaming of talks. Several members contribute to journal editorships, including **Lloyd** and **Luck** (*Design Studies*) and special issues including **Eckert** (*Research in Engineering Design*, AIEDAM), **Luck** (*Design Studies*). We conduct extensive journal, research proposal and panel reviewing for RCUK, EU and international research councils. These include the AHRC (**Dewberry**) and EPSRC (**Johnson**) colleges, EU policy boards and review panels (**Johnson**), numerous scientific committees for international conferences, as well as invitations for presentations and keynote addresses.

Johnson has been president of the European Complex Systems Society (ECCS) which he was instrumental in creating and has led the establishment of a network of complexity researchers, influential in policy development particularly across the EU (e.g. Horizon 2020 on Global System Science) as well as being the driving force in the annual series of discipline defining conferences held by ECCS. Design staff have also taken long-standing governance roles in the Design Research Society (**Lloyd** and **Roy**) and Design Society (**Eckert**) with prominent roles in their international conferences and specialist groups.