

Institution: University of Leeds
Unit of Assessment: D 32
<p>1. Unit context and structure, research and impact strategy</p> <p>Art & Design at the University of Leeds is part of the Faculty of Arts, Humanities and Cultures, and is organised into the School of Fine Art History of Art, and Cultural Studies (FAHACS) and the School of Design (SoD). The UoA unites their diverse range of Art & Design disciplines: fine art practice and design practice, history of art, cultural studies, graphic design, information design, fashion industry and marketing studies, textile technology, colour technology, museum and heritage studies. We operate within a shared framework of research themes and strategies and collaborate within research groups creating a formidable force for Art and Design in Higher Education and across the academy, and providing international leadership and demonstrable applications of art, design, and heritage research across the world.</p> <p>The activity of the UoA submission is grouped into four broad research themes which embody our shared strategic aims. While individual school research groups have been in place for some years, in the last two years research themes have been conceived as a way of driving the overarching areas of activity which best facilitate our shared aims towards increased external funding, interdisciplinary collaboration and impact, as well as maximising the interdisciplinary reach of our research across the creative, heritage/history, and industrial sectors.</p> <ul style="list-style-type: none"> A. Culture: Our academics work at the heart of critical cultural studies, operate as cultural creators in art, design, and heritage, and offer practical expertise in cultural production and display. B. Economy: As a UoA consisting of artists, cultural historians and theorists, designers, inventors and technologists we are uniquely positioned to offer real-world, direct economic impact as well as theoretical and practical critique of the larger cultural economy. C. Environment and Ethics: Issues of environmental sustainability, ethical practice in industry and scholarship, equality, diversity, and community co-creation are key concerns across the UoA. D. Health and Wellbeing: Applications of our research to improve health and wellbeing drive our cutting-edge textile and colour technologies work, emerge from our research in visual communications and experience design, and are informed by our research in theorising social wellbeing and egalitarian structures and societies. <p>These strategic aims are realised through eleven focused research groups with each of our researchers belonging to one or more groups and each group contributing to one or more of our strategic themes: 1) archiving and design history (contributes to A, B, C), (2) textile and fashion design (contributes to B, C, D), (3) experience design (contributes to B, C, D), (4) visual communications (contributes to A, B, D), (5) textile technology (contributes to B, C, D), (6) colour technology (contributes to A, B, D), (7) art practice as research (contributes to A, B, C), (8) artists' writing and curation as practice (contributes to A, B), (9) feminist and postcolonial studies (contributes to A, B, C, D), (10) critical materialist studies (contributes to A, B, D), (11) museum, heritage, and art market studies (contributes to A, B, C). These research groups incubate and develop research strength and impact across all experience levels from ECR to professor and include teaching staff to facilitate research-led teaching.</p>

In the REF period the UoA has

- Increased its research income to £13,765,213 from £5,307,560 (REF2014).
- Published 393 peer-reviewed journal papers; authored 46 books/monographs, 156 book chapters, 108 peer-reviewed conference papers and completed 106 exhibitions and performances.
- Supervised a total of 135.9 PhDs to completion, with 184 PhD registrations in the period.
- Created four new research centres: The Artists' Writing and Publication Centre, the Centre for the Study of the Arts and Antiques Market, the Centre for Critical Materialist Studies, and the Centre for Audio Visual Experimentation.
- Made 4 new Chair promotions, and 9 ECR appointments (7 through the University Academic Fellows scheme), attracted 15 Visiting Research Fellows (including 1 Leverhulme funded, 2 Montague Burton funded Fellows).

Research Strategy

UoA research and impact strategy is:

(1) To operate at the interface between design and technology with a commitment to interdisciplinary research and impact across all areas of design to the benefit of society. Central to the delivery of this strategy is the integration of staff with different theoretical and practical approaches within existing research groups as well as with researchers in other schools including Leeds University Business School, the School of Chemistry, the School of Dentistry, the School of Language, Cultures and Societies, the School of Music, the School of History, the Institute of Communications Studies, and the Institute for Medieval Studies. For example, in collaboration with the University of Huddersfield and Royal College of Art, the SoD led a successful application (£5.4M) for a creative cluster as part of the Creative Industries Cluster Programme (funded by AHRC). The aim of the **Future Fashion Factory** is to explore and develop new digital and advanced textile technologies to boost the design of high-value creative products in the textile and fashion industries. The Future Fashion Factory cluster now includes nearly 200 industrial members with whom we are collaborating, including IBM and Burberry, and provides a key opportunity for our interdisciplinary research to flourish and to impact society and industry. The Future Fashion Factory is one of the mechanisms that encourages technology and design staff to work collaboratively together (and with external partners) to solve real-world problems.

(2) To operate at the interface between the critical humanities and practice-based fine art and museum/heritage research. The success of this strategy is evidenced by, for example, the **Bradford's National Museum** project. In collaboration with the National Science and Media Museum, the School of History, and the School of Philosophy, Religion and History of Science, FAHACS leads a successful AHRC project (£934K) exploring the political geographies of the National Science and Media Museum and wider Science Museum Group, and the different communities who live in Bradford as a means of addressing the tensions facing inter/national museums in engaging their local audiences. The project has immediate local social and economic impact that provides a model of best practice for national and international institutions and communities. It is also part of one of our Impact Case Studies.

Since REF 2014 we have strengthened the research and impact culture within the unit enabling us to increase the global impact of our research. These goals have been achieved by:

- A. **Increasing Research Funding and Time to Support High-Quality Research.** The UoA has targeted support from RCUK to supplement its strong base of research income from industry, leading to the doubling of research income in this REF period. This led to Future Fashion Factory (above) as well as partnership in a second AHRC-creative cluster led by London College of Fashion. We have benefited from increased access to and success in internal research funding and leave support leading to an increase of 60% in external funding applications and to 6 awards for international collaborations.
- B. **Developing External Partnerships.** The UoA has developed new strategic partnerships with internationally renowned companies including Verivide Ltd (who manufacture products for visual quality inspection) who, as part of the partnership, have donated new equipment for the Colour Technology research group. The creative cluster, Future Fashion Factory, has also enriched our partnerships with IBM and Burberry. We have developed new or expanded existing partnerships with numerous heritage and cultural organisations including the National Trust, English Heritage, V&A, Tate, British Library, British Museum, National Gallery, and JK Randle Heritage Centre (Lagos). In the cultural sector our research groups enhance culture and shape policy locally, nationally, and internationally. This work is facilitated by the University's Cultural Institute, a global centre of research and teaching excellence, that coordinates activities across the University, and helps broker and provides seed funding for engagement with external partners.
- C. **Strategic Appointments.** The UoA has made important strategic appointments using the University's Academic Fellowship scheme. A University Academic Fellow is appointed to a structured five-year development programme that leads to becoming an Associate Professor. During the REF period, four University Academic Fellows were appointed: **Belinfante** in Fine Art & Curatorial Practice, strengthening curation as practice and research and extending research strength into sound and performance via the new Centre for Audio Visual Experimentation (CAVE); **Xiao** in Colour Technology, enabling the research group to extend expertise into the 3D printing and rapid prototyping fields; **Knifton** in Museums, Galleries, and Heritage, adding expertise on the sensory environment of museums and digital collecting; **Jafari** in Artificial Intelligence, identified as a key enabling technology for the UoA and a major component of the work that is taking place in the Future Fashion Factory creative cluster.
- D. **Additional Bursaries to Increase PhD Cohort.** The UoA has continued to support and develop academic staff and nine staff (**Gaston, Marsden, Laycock, Belinfante, Stainforth, Cass, McGonigal, Park, Taylor**) obtained their PhDs during the REF period. Additional studentships and bursaries and the success of our students in the White Rose College of the Arts and Humanities (WRoCAH) have more than doubled the number of PhD students to provide a vibrant postgraduate community.
- E. **Investment in Infrastructure to Provide a Professional and Inspiring Environment.** The University has invested heavily in refurbishment of our infrastructure and buildings over the REF period. Two phases of refurbishment took place in the SoD (£6M in 2014/15 and £4M in 2017/18) to provide new and refurbished facilities including a Design Experience Laboratory (with eye tracking, EEG and colour research facilities), a Textile Testing Laboratory, a new reception area and a new student common room. An investment of £7.6M enabled FAHACS to move into a refurbished building adjoining the SoD, providing enlarged studio,

workshop, and exhibition space, new staff and student common rooms, and facilitating collaboration between the two Schools.

- F. **Hosting International Conferences to Raise Awareness of Activities.** In this REF period the UoA has hosted Jewish Museologies and the Politics of Display (2016), Listening: After Paulina Oliveros (2017, in collaboration with the Tetley and Opera North), the 91st Textile Institute World Conference with the theme of Integrating Design with Sustainable Technology (2018), the Congress of the International Colour Association (2019), the European Artistic Research Network (EARN) conference (2019) and has continued to provide leadership for (and host occasionally) the LAND2 practice-based research network.

Research and Impact Outcomes:

Shared impact strategy across the UoA enables research groups in both schools to address research themes, often in a cross-disciplinary way both with other research groups and with other academics in the University. Research and impact goals are delivered by both staff and PGRs across the UoA's research areas. A significant amount of this research falls under more than one strategic theme:

A. **Culture:**

Culture is central to UoA strategy. In FAHACS it is a key theme within all four research groups: (1) feminist and postcolonial studies, (2) critical materialist studies, (3) museum, heritage, and art market studies, (4) artists' writing and curation as practice. In SoD work in archiving and design history, textile and fashion design and practice-led research contributes to the culture theme.

Artists' Writing and Curation as Practice consolidates and develops inter-disciplinary research on modes of critical and theoretical writing, curatorial production, editorial work and the production of text- and book-based art. Led by **Taylor, Thurston** and **Lewandowski**, AWCP considers artists' publications (from ephemera, journals, 'zines, artists' books and websites, to artist-led book series and imprints) alongside artists' writings (from correspondence, papers, journals, criticism, interviews and statements, to theoretical and fiction writing) as forms of creative practice that can happen in, around or as art. It is a focus for both emerging and established artists, plus researchers and collaborative groups, engaged with or interested in producing and disseminating art in the overlaps between the cultural fields of art, literature and publishing, nationally and internationally. The group brings together practitioners, critics, historians, archivists, editors, curators and teachers in a sustained conversation about research directions in this sphere of artistic practice. These conversations and resulting outputs contribute unique insights of interest to audiences and researchers in the fields of fine art history, curatorial studies, media theory, library and information science, and museums and heritage studies. The current network includes the British Library, the V&A, and the Tate. Long-term research projects include PAGES (**Taylor**), Wild Pansy Press (**Taylor** and **Lewandowski**), and informationasmaterial (**Thurston**).

Museum, Heritage, and Art Market Studies combines historical analysis with public engagement and outreach work. Collaborative research projects include: *Bradford's National Museum: Methods for re-founding 'inter/national' museums translocally* (**Graham**, AHRC); *Mapping Contemporary Art in the Heritage Experience* (**Cass**, AHRC);

led by Newcastle and Leeds with partners including National Trust, English Heritage, Churches Conservation Trust, CVAN); *Life on the Outskirts: Making sense and use of a creative life* (**Knifton**, AHRC). Through the Centre for Critical Studies in Museums, Galleries and Heritage, the group runs a Heritage Show and Tell in association with Leeds Museums and Galleries, and a Curatorial Forum in association with Arts&Heritage. **Fatehrad**, **Frojmovic**, **Karkov**, **Park**, Pollock have created public exhibitions, discussions, and publications around the role of art in contemporary and historic diasporas and in and for contemporary and historic refugee and immigrant communities. **Fatehrad** is co-founder of Herstoryographies: The Feminist Media Archive Research Network and co-curator of 'The Space Between: Psyche, Body, Skin, Environment', and writer, director, and curator of 'Iran's Women's Movement'. **Fukuoka** is co-investigator of the Leverhulme funded 'Engendering East Asia: Conversations of Contemporary Art'. **Prenowitz** is translating the writings of Hélène Cixous and Jacques Derrida, and contributes to a number of projects on the cultural heritage/memory of post-war Cambodia. **Rea** works on Colonial Nigeria and Yoruba Art and leads with the team developing the JK Randle Heritage Centre in Lagos. **Sternberg** participated in the University's Legacies of War project. **Cassidy's** Design Roots / Routes project explores how design can make a meaningful contribution in developing and revitalising culturally significant designs, products and practices to make them relevant to the needs of people today. The research considers designs and products that are linked to particular places, employ traditional making processes or are embedded in local ways of life. **Tucker** is a founding member of LAND2, a creative practice-led research network that brings together artists, academics and researchers to explore the relationship between art and landscape / place. **Thomas**, **Gardner** and **L Wilson** also contribute to LAND2 through their art practice. **P Wilson** works with speculative methods and storytelling as disruptive approaches to creatively engage communities. **Bide** carries out research at the intersection of geography and the creative industries with particular emphasis on fashion. **Rigout** characterises historical textile materials with a view to better presentation and long-term stability in a conservation setting.

B. Economy:

The UoA has extensive industrial connections. The Textile and Fashion Design, Textile Technology, and Colour Technology research groups all have deep industrial links through secured funding, consultancy and partnership. Staff (**Westland**, **Rhodes**, **Cheung**, **Xiao**) research works to understand how human colour vision operates and how this understanding can be used to develop new and more efficient methods of colour measurement and communication for industry. **Westland** and **Jafari** use machine-learning methods to develop software that can mimic human performance in colour and vision-based applications. **Russell** leads a large team of researchers that explores the manufacture and process-structure-property relationships of textile materials, particularly technical textiles and nonwovens; the research has developed new fabrics industrially applied to medical, healthcare and consumer products. **Carr** and **Mao** research the modification of fibrous materials to improve product performance. University support has enabled the creation of spin-out companies including Keracol (**Blackburn**), Xeros (**Burkinshaw**) and NIRI (**Russell**), all of which have provided impact case studies.

Contributions to the cultural economy and third sector are exemplified by research groupings in Museum, Heritage (see A) and Art Market Studies. **The Centre for Study**

of the Arts & Antiques Market: (Westgarth, Jackson, Rea, Thurston, Day), is an interdisciplinary forum for collaborations and research on the history of the art and antiques market and its contemporary dimensions. CSAAM fosters engagement across academia, the museum world and art market professionals. People formally involved in CSAAM include academic colleagues from the Universities of Southampton, Manchester and Buckingham; together with museum professionals (V&A Museum, National Gallery, Temple Newsam and The Tetley), and art and antiques market professionals (Blairman & Sons, Phillips of Hitchin, Vernay & Jussel [USA] and Colnaghi). Public events include 'Perspectives on the Art Market' lectures; 'Contemporary and Historic Issues in the Art Market' workshops; and the conference 'Private Collecting, Public Display: Art Markets and Museums'.

Critical Materialist Studies is led by **Checketts, Day**, and **Mowitt** and explores cultures of capitalism, aiming to bring together historical, historiographical and theoretical perspectives, with an eye to the social formation classically known as 'capitalism', its prehistories and possible 'post-histories'. The group addresses questions of value, capital, processes of capital subsumption; the interdependence of capital and colonialism; the reshaping of spatial and temporal experience; and the revival of marxist-feminism. Activities have included seminars, reading groups, and the PGR symposium *Bodies Under Capitalism* leading to the conference *Speak-Body: Art, the Reproduction of Capital & the Reproduction of Life*. It maintains a collaborative project *Aesthetic Form & Uneven Modernity* with Birkbeck College, University of London, and Centro de estudos Demanche e Formação de Sistemas Simbólicos (DESFORMAS) at Universidade de São Paulo with research events held in Leeds, São Paulo and London. Adopting the 'temporally-inflected lens', its programme consisted of a series of workshops and network activities in Brazil and the UK, and the Leeds symposium *Aesthetic Form & Uneven Modernities* (funded by an International Research Collaboration Award). In 2017, Brazilian funding was secured to extend the collaboration with a four-day seminar in São Paulo, *Ficção e documentário: a questão do trabalho após 1968*. More generally, staff take a lead in addressing issues central to the role of the Humanities in the 21st-century university and society through publications, conference presentations, and international workshops (**Mowitt, Karkov**).

C. Environment and Ethics:

Environmental sustainability is a major focus for research across the UoA, especially related to the textile and fashion, and art and heritage industries. Ethics is at the heart of each research group, and ethics and cultural sustainability are reflected in the impact outcomes of colleagues working in the Museum, Heritage and Art Market fields. Major projects address environmental sustainability. These are characterised, for example, through our creative cluster Future Fashion Factory, as well as extensive work in circular economies (**Sinha, Sumner**) and practical work in addressing problems with fast fashion (**Hur**). **Blackburn** is particularly interested in the use of natural products, and waste products such as blueberry skins, to extract dyes that can be used to make environmentally friendly cosmetics and hair dyes. **Tucker** co-hosted LAND2, a Cross, Multi, Inter, Trans conference in Sheffield in collaboration with the Association for the Study of Literature and Environment. **Thoma** is a contributor to this research network with its interest in landscape/place-oriented art. **Rushton's** work questions the spaces and places appropriate for the presentation and discussion of socio-political art with

projects including *Dread of Scarcity and Fear of Abundance* (2015). **Karkov** works on the medieval environment and is one of the founding board members of the journal *Medieval Ecocriticisms*. Feminist and Postcolonial Studies produces feminist, queer, and post- or decolonial interventions across the disciplines, and is centred around ethical practices and frameworks. It is founded in the lasting research and impact on feminist and gender theory and the way they are taught across the disciplines provided by **Pollock**. **Engh**, **Prenowitz**, **Mowitt** and **Pollock** participate in the World Gender international research network. **Karkov's** publications expand work on postcolonial theory to critique the racist histories of Medieval Studies and provide suggestions for decolonising the field.

Stainforth's research lies at the intersection of utopian studies, museums, and heritage display and interpretation. She was co-convenor the Sadler Seminar Series 'The Transcultural Fantastic' in 2018–19. **Graham** is a leading researcher into the ethics and inclusivity of heritage archives and displays, especially as regards community collaboration and co-production. **Morgan's** research focuses on ethics, racism and utopian studies. **Knifton** examines the impact and legacy of race relations in the UK as part of the UK Parliament community arts outreach *First Waves*.

D. Health and Wellbeing:

The UoA leads in the healthcare applications of design on multiple fronts: from medical textiles, through to information design for patients. We combine practical work in this theme with research strengths in equality and ethical research practice (as detailed above). Collaborative research proposals with companies, charities and governing bodies are strongly encouraged. The unit seeks to commercialise its research wherever possible to enrich culture, support the economy and improve the environment and the health of UK and global populations. **Tronci** is a joint appointment with the School of Dentistry and develops new biomaterials and applies these to treatment of chronic wounds, musculoskeletal care and the development of high-value medical devices.

Stones works closely with healthcare professionals in the NHS to produce pain diagrams, pain pictograms and pain apps to enhance communication, particularly with non-English speakers and children. **Stones** also works with Savortex on an Innovate UK award to develop and deploy a smart hand-santiser device using non-touch technology that connects into buildings' smart operating systems. **Lonsdale** is an expert in visual communication and also applies her knowledge to the efficient and effective design of information in healthcare. **Xiao** works closely with Stratasys to use 3D printing processes to develop more effective prosthetics that have better colour-appearance properties. **Carr** has worked with the Bill and Melissa Gates Foundation to develop effective anti-malaria nets that do not use insecticide. **Westland** works with both Colgate and Unilever to develop more effective tooth-whitening systems and to understand the role of tooth colour on people's confidence and wellbeing. **Westland** studies the effect of light on sleep and his article in *The Conversation* about the role of blue light has been viewed 160,000 times.

Open Access

The UoA has embraced the opportunities presented by Open Access and both Schools operate a policy on Open Access. Researchers are briefed regularly on the requirements and benefits of the system, and internal funds are available to cover APCs where appropriate. Research Teams and in-house administrators are in place to assist with the practicalities of compliance with Open

Access, including advising on rules and regulations. All researchers are strongly advised to apply for an ORCID as part of research policy.

2. People

Staffing strategy

The UoA is committed to the appointment of high-quality research-active academic staff, promoting research excellence and interdisciplinarity. Staffing strategy during the REF period has focussed on expanding and maintaining critical mass in areas of research strength, increasing internationalism and collaboration, and incubating and providing leadership in new areas of research within and beyond the UoA. A new appointment (**Xiao**) has extended the interests of the colour technology research group into colour management of 3D printing and an appointment (**Jafari**) has been made to provide leadership in artificial intelligence. A joint appointment (**Tronci**) with the School of Dentistry was made to enhance the health-related collaborative research that is taking place between the UoAs with some staff (**Westland**) co-supervising PhDs in the School of Dentistry. Additional appointments (**Almond, Logkizidou, Sinha, Suter, Guo, Dallabona, Han, Hemingray, Bide, Oliveira de Queiroz**) strengthened our activities in fashion, fashion marketing and retail studies and a new appointment (**Lonsdale**) was made to strengthen graphic design. New hires have expanded our strength in heritage, museum and gallery studies (**Knifton, Stainforth, Park**), and feminism (**Fatehrad, Park, McGonigal**) building cross-programme synergies in contemporary art practice and curation (**Belinfante, Fatehrad, Park, McGonigal**), and increasing internationalism and research in global art and culture (**Fatehrad**).

Since REF2014, we have appointed staff at all levels helping fulfil the strategic aim of making significant contributions to the benefit of society in our four thematic areas through the development of new technologies, design tools and understanding. We have developed our own researchers from PhD students (**Hemingray, Belinfante, Cass, Stainforth, Park, McGonigal**) and in addition appointed twelve ECRs (**Guo, Koch, Suter, Dallabona, Logkizidou, Han, Fatharad Park, Lonsdale, Hemingray, Bide, Oliveira de Queiroz**). Well-established mentoring schemes as well as training and induction programmes ensure that new researchers are given adequate and effective advice and support. ECRs are given lighter teaching loads to allow them to invest time in research and they are also introduced into PhD supervision teams led by established researchers; for example, **Dallabona** and **Logkizidou** are co-supervising with Professor **Westland**, and **Cass** is co-supervising with Professor **Karkov**. Retention and promotion of excellent researchers is central to our staffing strategy. Twelve staff have been promoted to Associate Professor (**Checketts, Cheung, Crawford, Fukuoka, Graham, Lewandowski, Lonsdale, Rhodes, Stones, Thurston, Westgarth, Xiao**). Leadership power within the UoA has been increased by the promotion of **Day** to a Chair in Art History, **Harrison Moore** to a Chair in Art History/Museum Studies, **Lonsdale** to a chair in Information and Communication Design, **Mao** to a Chair in Fibre and Textile Technology, and **Taylor** to a Chair in Fine Art. Four of those promoted hold or have held leadership roles within the School: **Day** is Director of Research and a leader of the Centre for Critical Materialist Studies, **Harrison Moore** was Head of FAHACS until Sep 2019, **Lonsdale** was Deputy Head of SoD and is now Head of SoD, and **Taylor** was Deputy Head of FAHACS until Sep 2020.

Staff Development

UoA staff are supported at all stages of their career and on all types of contract including part-time and fixed-term. Staff are developed and supported in the first three years of employment

through the probation process and are assigned individual mentors to advise and guide them. In addition to mentoring, new staff receive induction into the research and support structures of the School, Faculty and University. Individual staff receive further mentoring through the promotion process by Faculty HR, Head of School, and Director of Research, as required. The University provides a Next Generation Researcher training and development programme for ECRs and PGRs, developed in line with the Concordat to support the Career Development of Researchers and the national Researcher Development Framework. The Faculty offers professionalisation courses for ECRs, and guidance on and assistance with ethical review and research ethics. After probation all staff participate in an Annual Academic Meeting (AAM) and the Annual Staff Development Review Scheme (SRDS). Planning for promotion is an integral part of both exercises. The AAM takes a holistic approach to workload and developmental needs and requirements ensuring that research, teaching and administrative commitments are balanced according to individual circumstances, fairly distributed across staff in the School, and receiving any support felt necessary. SRDS enables staff to set and agree short- and long-term career objectives with the Head of School, and ensures that they are fully supported at School, Faculty, and University level. All research-active staff complete a 3-year personal forward planner for research and impact activities which is discussed and agreed with the Director of Research, and with the Head of school as part of the annual AAM. The planner has enabled, for example, 80% of staff to obtain teaching relief for short periods of research or grant writing, and one- or two-semester leaves for the completion of projects or to begin a new research project. A Director of Impact & Innovation supports staff in accessing training and funding opportunities. All staff receive mentoring with funding bids and research outputs as an integral part of the peer review process implemented at School and Faculty level. Grant writing workshops and mentoring are available through RIS and LAHRI. All funding applications are peer-reviewed by at least 2 senior researchers from the unit and/or Faculty prior to submission.

The UoA has dedicated funds to support researchers' (especially ECR) conference presentations, publications or exhibition costs, and to engage in national and international networks. Multiple sources of seed funding, internationalisation mobility funding, and interdisciplinary funding are available from the Faculty and University. Permanently contracted staff (including fractional staff) are encouraged to apply to the Faculty for a semester of research leave with the expectation that successful applications will be matched with a semester of leave from their School. Workload remission is normally 100% (but can also be fractional) and applications may be made once a member of staff has completed at least two semesters of teaching since the last award. Unsuccessful candidates for Faculty research leave can be supported for shorter periods of research time by the School. Additional support is available through the Faculty's International Research Mobility and International Conference awards. Through personal forward planners and AAMs additional needs can be assessed and workload flexibility can be negotiated. The unit has also instituted red weeks (an average of 7 spread across the academic year outside of teaching weeks) during which staff are expected to focus on research as much as is possible given individual administrative commitments. Financial support for practice-based research in the Arts is available to staff and PGRs through CePRA, which was created to respond to the need within the Arts to debate the framing, articulation, and documentation of practice-led research methods, and to explore these issues across the disciplines. The University's Crucible programme offers, research-intensive residential weekends promoting interdisciplinarity and leading to funding for its alumni. During the REF period an innovation fund provided by the Worshipful Company of Clothworkers with matched funding from the University encouraged and supported commercialisation of research resulting in the

development of three spin-out companies: NERI – textile-based innovation and commercial research; Xeros – technology to reduce water consumption in textile processing; and Keracol – sustainable natural cosmetics.

The co-publication of outputs over the REF period by experienced professors with less experienced research-active and teaching fellow staff exemplifies the strength and development of our research culture. For example, established textile technology researchers **Carr** and **Rigout** published with **Sumner** strengthening their research base in sustainability; **Mowitt** has participated in **Belinfante's** exhibitions and helped to establish CAVE; **Westland** mentored the less research active **Henry**, helping him publish single authored papers and claim his academic turf. Post-doctoral researchers are fully integrated into the research activities of the UoA and the unit hosts a number of Visiting Research Fellows, many of them international, who enhance the research and teaching within the UoA.

At University level, the Organisational Development and Professional Learning (OD&PL) service provides integrated training and development for all staff and PGRs, with a holistic focus on the entirety of academic and professional development needs (research and innovation, learning and teaching, academic leadership and management, personal and professional skills). Twenty-eight staff have received OD&PL training in this REF period. The University also runs a Next Generation Researcher programme for the training and development of researchers at Leeds, from which 20 PGRs have benefited in this REF period. The programme has been developed in line with the Concordat to Support the Career Development of Researchers and the national Researcher Development Framework (RDF). The implementation of the programme led to the creation of three Faculty training hubs that work in collaboration with OD&PL and other central services to provide training and development for research students and research staff.

Equality and Diversity across the Unit

The University has clear equality and diversity policies and remains committed to focusing on issues of diversity across disciplinary and research areas, highlighting this as part of the recruitment process. Through the University staff receive training in equality and inclusion, and unconscious bias. Since 2018 this training has been mandatory for all staff. Equality and inclusion are embedded into promotion and career development. As detailed above, new staff are assigned a mentor or advisor to help them with promotion, career development, and achieving their research ambitions, and workload is monitored to ensure gender equality and a fair distribution of administrative duties. The UoA makes all appointments under the University-wide commitment to adhere to equality and diversity legislation. Ten out of fifteen new appointments during the period were female. Childcare, maternity and adoption leaves are flexibly accommodated.

We value diversity and ensure that everyone is treated with respect and dignity. Equality is promoted in all practices ensuring fairness in HR processes and providing a safe working environment. We promote equality and diversity through our own research, ensuring that they are central to our research strategy and appointment processes and generating an increasingly diverse PGR cohort. **Day** works on class, Marxism and traditions of emancipatory and dissident thought and labour; **Frojmovic** directs the Centre for Jewish Studies and works on antisemitism, historical relationships between Jewish, Christian, and Islamic cultures, religion and heritage display, and decolonising Medieval Studies; **Koch** and **Pollock** research antisemitism and trauma; **Fukuoka** works on historiographical, methodological, translational, and gender issues in

East Asian art and its reception in the West; **Rea** on repatriating African art; **Graham** has pioneered models of inclusivity, participative research and political action in relation to heritage, property rights, and democracy, and co-organises FAHACS's anti-racism organising group with **Singh**, and **Fukuoka**; **Karkov** works on relationships between historic and modern nationalism, ethnocentrism, and white supremacy, and on decolonising Medieval Studies; **Morgan** works on animality, globality, and humanity, utopian thought, and ethics; **Stainforth** works on utopian thought and ethics in the context of museum and heritage collections and displays; **Mowitt** works on questions of labour and the contemporary university, and race, gender, and sexuality in modern culture; **Pollock**'s work on feminism and gender diversity and equality is world leading; **Prenowitz** works with and on renowned feminist Hélène Cixous, gender theory, and sexual difference; **Sternberg** works on migrant and diasporic cultures, cultural memory and the experience of civilian internment. **Sternberg**, and **Koch** are experts on the representation of Jewish, Black and Asian identities in film and television.

Research Students

The UoA has achieved strong recruitment of doctoral research students with a total of 135.9 PhDs completed in the period. The gender mix of the PGR community is 60% female and 40% male. Most PGR students are supported by (a) industrial scholarships, and engage in research that is driven by practical requirements in manufacturing industry and the creative and cultural industries, or by (b) scholarships from UKRC, AHC, the University and, the White Rose College of the Arts and Humanities (WROCAH), which supports research and collaboration across the Universities of Leeds, Sheffield, and York. There is a vibrant international research community with 50% of PGRs from non-EU countries. Research students are initially registered on an MPhil/PhD route and are supervised by one lead supervisor and a co-supervisor or co-supervisors. Each student is required to produce a training plan (after one month), a progress report (after six months) and, oral and written accounts of their research (within one year of registration). At this stage a panel decides whether the student transfers onto the PhD route, continues to MPhil or is not allowed to continue. Subsequently reports are required on an annual basis. PGRs receive a mandatory minimum of 10 supervisions a year and complete an annual end-of-year report and assessment. These processes are recorded on the University's Graduate Record of Achievement and Development (GRAD) section of the VLE and are monitored by each School's PGR tutor and the Faculty Graduate School. Each PGR (full- and part-time) has access to £250 in research funding and an additional £200 for language training per annum. Additional financial support for research related activities is available through the Faculty and support for travel, research, and internships for WROCAH-funded students are available through WROCAH,

Investment in infrastructure during the REF period has enabled the provision of dedicated postgraduate study spaces in which each PGR can access a desk and a computer and has access to a kitchen area and a printer. There is a weekly programme of research colloquia in which students and staff participate, an annual PGR symposium at the beginning of the second year of the doctorate, an annual PGR-led conference (supported with internal funds), and an annual practice-led symposium. PGRs are funded by their School to attend and present papers at international conferences and the PGR community has a very good record of papers published in both academic journals and conference proceedings. Art practice PGRs are very active in Land2 and EARN events both within the University and at other institutions in the networks such as the University of the West of England, the University of Northampton, the University of Hertfordshire and Southampton City Art Gallery (for Land2) and the Universities of

Helsinki, Utrecht, Vienna, Malmö, London, Venice, Gothenburg, Brussels, and Dublin (for EARN). The Land2 network is hosted, and their website is maintained, by SoD. Land2 is an important strategic mechanism for ensuring the sustainability of practice-led research and PGRs in this area.

The UoA provides support for each PGR to attend at least one international conference during their studies and students have attended a wide range of conferences including the IASDR, the European Academy of Design, The Congress of the International Colour Association, The International Congress on Medieval Studies (Kalamazoo, MI), Inter-Nation: EARN 2018, and The Design Research Society Conferences. PGR students have assisted and complemented staff in consultancy and collaborative research projects with clients including Unilever, Colgate, Abraham Moon & Sons, and St James's University Hospital, Leeds. PGRs have the opportunity to be paid as teaching assistants in undergraduate, or demonstrators in undergraduate and taught postgraduate modules. This is monitored very closely to ensure that such activities are not deleterious to their academic progress. The award-winning journal *parallax* (housed in FAHACS) is edited by PGRs in consultation with staff advisory editors, providing them with professionalisation in all aspects of the editorial process as well as a possible venue for publication. PGRs have the option to apply for Higher Education Academy Associate Fellowships through the University's OD&PL scheme as part of their professionalisation. They are also supported in applying to external bodies (AHRC, Arts Council) for further research support. Several PGRs (**Hemingray, Belinfante, Stainforth, McGonigal**) have subsequently been appointed as Lecturers or University Teaching Fellows at Leeds. Others have attained posts at the Universities of Aberdeen, Berkeley, Cambridge, Exeter, Keele, Leeds Beckett, Loughborough, Middlesex, Newcastle, Plymouth, South Africa, Trinity (Dublin), Tunghsi (Taiwan), EHWA Women's University (Seoul), Imperial College London, Inland Norway University of Applied Science, Leeds Arts University, Manchester Metropolitan, Open University, Queen's University Belfast, Tallinn University of Technology, Institute of Contemporary Art (Graz), V&A, AkzoNobel UK, Mohum Aldridge Sykes UK, Rab UK, Surfachem UK, St James Hospital (Leeds).

Additional workshops, reading groups, and a postgraduate research centre are provided by the Faculty, while CePRA provides training and network opportunities, as well as funding, for practice-based PGRs. For example, Interconnections brings together students from across the Faculty to share experiences and form academic and social connections. The Leeds Cultural Institute Postgraduate Partner Scheme enables PGRs to work with local organisations, developing professional skills benefitting local organisations and communities. The Cultural Institute was created specifically to increase pioneering research collaborations with creative sector partners, to widen cultural engagement and participation and to build the skills of our students. The Doctoral College (which supports and showcase the significant and diverse contribution PGRs make to the research profile and academic life of the University) offers interdisciplinary research nights, individual writing consultations, and peer mentoring. Research, Writing, and Professionalisation training are available through the University OD&PL, and the Library. The Language Centre offers bespoke support for international students.

3. Income, infrastructure and facilities

Income:

The UoA has more than doubled its research income to £13,765,215 this REF period from £5,307,560 and there is widespread grant capture across all research groups and levels of staff.

We continue to attract substantial research funding from industry, research councils, and professional associations across the diverse range of disciplines we bring together (fine art practice and design practice, history of art, cultural studies, graphic design, information design, fashion industry and marketing studies, textile technology, colour technology, museum and heritage studies), reflecting the strong inter-disciplinary nature of the UoA. Industrial grants are an area of particular strength and have been awarded by a wide range of companies including Samsung (**Westland, Cheung**), Colgate (**Westland**), Stretchline (**Russell**), Henkel (**Sumner**), Unilever (**Carr, Westland**) H Dawson Sons and Co (**Cassidy**), Marks and Spencer (**Goswami**), Sigma-Aldrich (**Blackburn**), Lenzing (**Carr**), LG (**Westland**), Dyson (**Mao, Russell**), Mas Intimates (**Blackburn**), Procter & Gamble (**Russell**), Texon Nonwoven (**Russell**), AkzoNobel (**Westland**) and L'Oréal (**Xiao**), Carlsberg Foundation (**Jackson**).

Funding from Research Councils and Learned Societies is also strong with awards from EPSRC (**Ningtao, Russell, Tronci, Wilson, Willneff**), BBSRC (**Carr, Rigout, Blackburn, Tang**), AHRC (**Russell, Almond, Stones, Cassidy, Willneff, Graham, Westgarth, Cass, Knifton, Sternberg**), Wellcome Trust (**Russell**), Leverhulme Trust (**Pollock, Sternberg, Fukuoka**), Japan Foundation (**Fukuoka**), British Academy (**Prenowitz, Day, Sumner**), Paul Mellon Centre (**Westgarth**), European Association for Jewish Studies (**Frojmovic**), Society for the Study of French History (**Mainz**), Furniture History Society and the Society of the History of Collecting (**Westgarth**). Additional support has also been received from the EU (**Russell, Westland, Xiao, Tang, Wilson**), Gatsby Foundation (**Carr, Rea**), Bill and Melinda Gates Foundation (**Carr**), Innovate UK (**Blackburn, Carr, Cassidy, Mao, Rigout, Russell, Stones**), York Council (**Graham**).

Infrastructure and Facilities

Research is supported at University level by the Brotherton Library, one of the foremost university research libraries in Europe, which has 'designated' status from the Museums, Libraries and Archives Council. The Brotherton holds over 2 million manuscripts and 2.8 million printed books. A designated subject librarian works with the unit in developing holdings in line with research strategy and provides specialist support and staff/PhD training. Particular use is made of its outstanding collection of rare books, manuscripts, and artists' books which has been used for research purposes by almost all staff. **Taylor** is Champion of its Artists' Book Collection, making it accessible and visible to public audiences, and **Taylor** and **Thurston** work with the Brotherton in the interpretation of the Artists' Book and the Herbert Read Special Collections. **Frojmovic** is co-convenor of the 'The Archive after Cecil Roth: Jewish Studies, Cultural History' and the Cecil Roth Collection seminar series, helping to increase access to the work of this pioneering Jewish historian. The Stanley and Audrey Burton Gallery (the University's Art Gallery) is used for research on its collections and as an exhibition space for both staff and PGRs. Important research support is also provided through Cultural Institute partnerships with the local archives and exhibition spaces of the Henry Moore Institute and Leeds Museums and Galleries (**Karkov** has published on their early medieval collection), the Royal Armouries, Yorkshire Sculpture Park, the Hepworth, Wakefield, and with Opera North. The University Cultural Institute and LAHRI support interdisciplinary research at University and Faculty level and are key facilitators of the unit's ongoing contributions to the University's Culture research theme, which uses cultural methods to tackle global problems such as environmental change, trauma, health, and political conflict. **Graham** leads the 'Value' strand of the Culture theme.

Individual staff make research use of the University International Textile Collection, led by **Hann**, (previously hosted by SoD) that is now part of University Special Collections and Galleries. It consists of world-wide materials, including Chinese Qing dynasty embroideries, Kashmiri shawls, Mediterranean and near eastern embroideries, block-printed cottons from Pakistan, Javanese batiks and ikats, Japanese textiles, West African weaves, 19th and 20th-century European textile samples, mid- 20th-century British furnishing fabrics, natural and man-made fibres and glass-plate teaching slides. The Marks and Spencer archive, located on the University campus, contains over 71,000 items dating from 1884 to the present. The collection, which includes artefacts and written, photographic and digital records, provides a unique insight into one of the most important and iconic UK retailers and is a valuable research resource. The Yorkshire Fashion Archive is hosted in, and curated by, the SoD and provides a publicly accessible collection of haute-couture, fashion garments and everyday clothing. It provides a historical and cultural record of Yorkshire life and documents clothing produced, purchased and worn by Yorkshire folk throughout the 20th Century. The Edward Boyle Library collection supports research on textiles and fashion.

UoA Research and Impact committees are chaired by SoD and FAHACS DoRs. Each discipline and research centre, and PGRs have representation, reporting to and providing feedback from their constituencies and enabling staff and PGR input into research strategy. These committees align with, report to, and provide information from Faculty and University research structures. Research funding applications within the UoA are supported at University- and Faculty-level by the University Research and Innovation Service (RIS), LAHRI, the AHC research and finance team (FRO). OD&PL impact specialists and the Faculty Impact Officer provide advice and guidance at all stages of the grant process. Both LAHRI and RIS offer dedicated staff training and/or support processes for key schemes and funders. All research involving human participants is required to undergo ethical review and to obtain ethical approval before the research can commence. This applies to all types of research ranging from undergraduate dissertations to PhDs to externally funded research grants. The University Research Ethics Committee (UREC) considers matters of general principle and policy on research ethics. It provides a framework of delegated authority within which the likely benefits of research can be considered in relation to the potential risks and within which research will be conducted in accordance with the law, with University values and with the highest standards of academic and professional integrity. All cases are brought to the Faculty Research Ethics Committee which reports to UREC. **Graham** holds regular ethics training, drawing on her research into community participation.

The UoA has made substantial investments in estates and infrastructure during the REF period with a total investment of £17.6M. In the SoD this created refurbished art-practice studios, a new textile testing laboratory, and new studios for Fashion and Fashion Marketing, and a new reception area in 2015, followed in 2018 by a new Experience Design Laboratory, improved Colour Technology laboratories, a new wet-chemistry laboratory, and refurbished spaces for Textile Design. Investment of £7.6M allowed a refurbished single purpose-designed site to be developed for FAHACS adjacent to the SoD and at the heart of the campus, facilitating increased possibilities for research activities (including international conferences, symposia, seminars, exhibitions and receptions) and collaborations for both staff and students. In addition to dedicated study and research spaces, PGRs now have access to: iMac and PC computer suites for video editing, animation and image manipulation; printmaking workshops for etching, relief and screen printing; a woodworking and casting area; a photography darkroom for film

developing and printing; digital and 3D printing facilities; individual and shared studio spaces; Project Space, a dedicated exhibition space supports staff and PGRs. There is also a dedicated team of experienced technicians who assist and advise staff and students. The creation of in-house space for exhibitions has enabled PGRs to exhibit their work during major international conferences such as the annual Leeds International Medieval Congress, and Citation – the EARN 2019 Conference. The new FAHACS building provides space and technical support for 6 active research centres (The Artists' Writing and Publication Centre; Centre for Critical Studies in Museums, Galleries and Heritage; Centre for Study of the Arts & Antiques Market; Centre for Critical Materialist Studies; the Centre for Audio Visual Experimentation; the Centre for Jewish Studies) as well as Wild Pansy Press and the journal *parallax*.

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

1. Collaboration, networks and partnerships with key research users, beneficiaries or audiences

The structures and support mechanisms in the UoA, Faculty and University described in Section 2 have enabled us to achieve our strategic aims of promoting greater collaboration within our institution but also nationally and internationally, and of increasing our level of engagement with external partners.

Working with NGOs and community groups to raise awareness and change attitudes:

Cassidy has led the development of revitalisation strategies, and the creation of a taxonomy (available as a set of cards for workshops and as an online tool) for use by designers working with communities through the Design Roots/Routes project. **Blackburn** was co-founder and Director of RITE Group (Reducing the Impact of Textiles on the Environment), a non-profit industry association which aims to provide advice and fact-based information to minimise the negative environmental impact of the production, use and disposal of textiles and apparel. **Stones** AHRC Design Fellowship (2014–2016) enabled her to work alongside Public Health England to publish a set of public health infographic guidelines that are the number 1 resource on Google for Public Health infographics and have been accessed thousands of times. **Graham** is PI on the AHRC funded *Bradford's National Museum: Methods for re-founding 'inter/national' museums translocally*, which works to maximise the social, economic, and community connections between a national museum and the local northern community in which it is located. **Taylor** is Trustee and Technical Director of the not-for-profit Appleby REMOTE Cinema, Cumbria, where he works to unite rural communities through movie screenings and related events. **Fukuoka** (with Leverhulme Visiting Fellow Pauline Yao from M+ Hong Kong) led a series of forums at non-HE institutions across the UK on contemporary East Asian art and its relation to the generally Eurocentric categories and values of contemporary art.

Shaping policy:

Staff work to shape policy locally, nationally and internationally in a wide range of areas. For example, **Westgarth** is Chair of the Leeds Art Fund; council member and Trustee of the Furniture History Society; a Board Member of the Museums and Galleries History Group; and Committee Member of the International Art Market Association. **Graham** is on the Heritage 2020 steering group, the City of York Council, and was a member of the advisory group for the British Museum's Object Journey project. **Checketts** collaborates with the V&A on 'Encounters on the Shop Floor', which brings together artists, historians, curators and surgeons to investigate the importance of embodied knowledge and its cultural, social, and economic potential. **Sumner** has advised the government's Environmental Audit Committee on the environmental and ethical implications of 'fast fashion'. His article on sustainability and fast fashion at The Conversation

was read over 22,000 times. Blackburn advises The Zero Discharge of Hazardous Chemicals (ZDHC) Foundation.

Working with cultural and creative industries:

In addition to shaping policy, our academics work to enrich culture locally and globally with research that ranges from industrial design practice to philosophical critique. **Tucker** co-hosted LAND2 a Cross, Multi, Inter, Trans conference in Sheffield in collaboration with the Association for the Study of Literature and Environment. The Land2 network has led to related work with cultural stakeholders, for example, her collaboration with the poet Harriet Tarlo and their joint work on the Humberston Fitties. **Thoma** is also a contributor to Land2 working specifically on landscape- and place-oriented art and nomadic dwelling. As part of an Arts Council funded year-long project **Gardner** undertook research at the Musculoskeletal Biomedical Research Centre (Chapel Allerton Hospital, Leeds). A body of her drawings which came out of the research premiered in a newly refurbished building for the opening of the Leeds National Institute for Health Research. Her work is and are now permanently sited there. **McGonigal** is co-founder and co-director of Corridor 8: Contemporary Art and Writing in the North of England, which works with local artists and cultural organisations to support and promote the arts in the North. **Thurston** is a mentor and co-convenor of the 'New Writing with New Contemporaries' programme, and mentor at S1 Gallery, Sheffield. **Harrison Moore** has contributed to the HENI talks film on William Morris (2018) and BBC4's Victorian Sensations. **Bristol** featured in films on Thomas Chippendale and on Nostell Priory's Dolls House for the National Trust. **Rea** is Lead Curator at the JK Randle Yoruba Heritage Centre, and a Board Member of the JADEAS Trust in Nigeria. **Fatehrad** organised and hosted Citation, a 2-day international EARN conference which explored the ways in which artist-researchers or curatorial practices take positions on or emphasise shifting temporalities within the historical, social, political and economic contexts of contemporary visual culture. **Day's** work on *Aesthetic Form & Uneven Modernity* (with Birkbeck College, University of London, the Universidade de São Paulo's Centro de estudos Demanche e Formação de Sistemas Simbólicos) examines the social contradictions that emerge through aesthetic activity in two contrasting sites of modernization (Brazil and UK). **Graham** is PI on the AHRC funded *Bradford's National Museum: Methods for re-founding 'inter/national' museums translocally*, which works with the museum to maximise the social, economic, and community connections between it and its local northern community. **Taylor** works on the cultural, social and economic value of artists' books, collaborating with the British Library and chairing their Artists Books Now: PLACE symposium.

Working with schools, educationalists, and practitioners to change attitudes and inform practices:

Harrison Moore works with schools and teachers nationally and internationally. And has addressed an All-Party Parliamentary Group on her research into creative education in schools. Through her work with ARTiculations she encourages the study of art and art history and developed Discover ARTiculations, a Leeds version of the national and international competition. She is a judge for SPOKE, a film-making competition for young art historians and works with the AAH outreach programme 'Plan, Prepare, Provide', a residential programme for teachers. **Taylor, Thurston** and **Lewandowski** lead the Artists' Writing and Publication Centre which was founded to enable collaborations between artists, teachers, editors, critics, and curators with partners (including the British Library, V&A, and Tate) with the aim of informing research directions and reception in this sub-field of artistic practice. **Mowitt** has an ongoing collaboration with the Winter School of the Centre for Humanities Research, University of the Western Cape

to reconceptualise the ethical relationship between art and the humanities against the backdrop of rapidly changing world of work, politics and technology.

2. Wider contributions to the economy and society not captured in impact case studies

The success of our strategy to increase the level of engagement with external partners is further evidenced through a wide range of impact activities with diverse communities and publics taking place *beyond our impact case studies*.

Our Centres host regular programmes of events which are open to the public and engage with diverse partners and audiences. For example, in 2018-19 the Centre for Jewish Studies convened the 'The Archive after Cecil Roth: Jewish Studies, Cultural History' a series of lectures, seminars, and discussions designed to increase access to Roth's work. The Centre for the Study of the Art and Antiques Market organised a performance of the stage play 'Quinney's' at The Witham, Barnard Castle (2020), as part of the AHRC Year of the Dealer project. The Centre for Audio-Visual Experimentation organised 'Listening: After Paulina Oliveros' (2017), an international conference and series of workshops and public events, in collaboration with the Tetley and Opera North.

Beyond our centres, staff regularly serve as consultants or commentators for a range of media and organisations. This has impacted upon public discourses about fast fashion, the circular economy and the arts. Such dissemination highlights the relevance of our research to the non-academic world. Staff research has been featured in *The Washington Post* (**Dallabona**), BBC 2 (**Westland, Crawford**), BBC 4 (**Harrison Moore**) BBC Radio 4 (**Westland**), BBC Radio 5 (**Sumner**), BBC Radio 3 (**Sumner, Westland**), Channel 5 (**Blackburn**), BBC 1 (**Blackburn**), BBC News 24 (**Blackburn**), *The Guardian* (**Blackburn, Westland**), *New Scientist* (**Blackburn**), *The Observer* (**Blackburn**), *HENI-Films* – **Harrison Moore** was one of the first art historians to do a film for HENI, the 2nd most internationally viewed of their suite of films on YouTube. The film is now played as part of the permanent interpretation at Standen House and Garden and features on the National Trust's main webpages.

Staff have been consultants or advisors at and including: Academic consultant to the University of Hull (**Almond**); Advisory Board for Contemporary British Painting (**Tucker**); Fine Art, University of Kent (**Gardner**); The Zero Discharge of Hazardous Chemicals (ZDHC) Foundation (**Blackburn**); Colour Science Research Unit, Chulalongkorn University (Thailand) (**Westland**); Visiting Professor at School of Design, Huazhong University of Science and Technology (China) (**Westland**); Visiting Professor at School of Computing, University of East Anglia (**Westland**); Subject Leader for the Bahrain National Authority for Qualifications and Quality Assurance of Education & Training (**Stones**); Member of International Advisory Board for Colour and Imaging Institute, Tsinghua University (China) (**Westland**); Senior Adjunct Scientist at Dental School at the University of Texas (USA) (**Westland**); Adjunct Professor at Shanghai Jai Tung University (China) (**Hann**); Guest Lecturer (Creative Pattern Cutting) at MMU (**Almond**); Visiting Professor, Asia University, Taichung (Taiwan) (**Hann**); Adjunct Professor, Donghua University (Shanghai) (**Hann**). Staff have acted as expert witnesses for: a copyright case involving a well-known fashion designer (**Cassidy**); expert witness for Serious Organised Crime Unit (**Blackburn**); US trial on dye pollution in watercourses in the state of Georgia (**Blackburn**). Staff have been media consultants for *The Washington Post* (**Dallabona**), BBC 2 (**Westland**), BBC Radio 4 (**Westland**), BBC Radio 5 (**Sumner**), BBC Radio 3 (**Sumner, Westland**), Channel 5 (**Blackburn**), BBC 1 (**Blackburn**), BBC News 24 (**Blackburn**), *The Guardian* (**Blackburn**,

Westland), *New Scientist* (**Blackburn**), *The Observer* (**Blackburn**), *The Independent* (**Westland**).

3. Evidence of the unit's contribution to the sustainability of the discipline

Staff contribute to the sustainability of the discipline by undertaking a wide range of leadership roles in national and international organisations and associations. **Morgan** is president of the Association Ici et Ailleurs: pour une Philosophie Nomade. **Frojmovic** coordinated the Arts strand for the Quadrennial Conference of the European Association for Jewish Studies (2018), and the Jewish Studies Strand for the Leeds International Congress on Medieval Studies (1996–2018). **Prenowitz** is co-director of the Cixous Seminar Publication Project. **Carr** and **Blackburn** are Liverymen of the Worshipful Company of Dyers and **Russell**, Liveryman of the Worshipful Company of Clothworkers. **Xiao** is Technical Committee chair for CIE TC 1-92 skin colour database, TC 8-17 Method for evaluating colour difference between 3D colour objects, and co-chair for JTC 16 Validity of chromatic adaption. **Westland** was President of the charity Society of Dyers and Colourists (2018/19) and **Cheung** was Vice President (2018/19) and President (2019/2020) of the International Colour Association. **Hann** is President of the International Textiles and Costume Congress (ITCC). **Rhodes** is a committee member of the UK Colour Group.

Staff act on Editorial or Advisory Boards for: *The Design Collection Journal* (**Almond**), *The International Journal of the Arts in Society* (**Almond**), *Textiles and Clothing Sustainability* (**Blackburn**), *Coloration Technology* (**Blackburn, Cheung**), *Textile Progress* (**Cassidy**), *Fibre Biomechanics and Informatics* (**Cassidy**), *Global Fashion Marketing* (**Cassidy**), *Journal of the International Colour Association* (**Cheung**), *Journal of Imaging Science and Technology* (**Cheung**), *Journal of Information Display* (**Cheung**), *Color Culture and Science Journal* (**Cheung**), *Journal of Natural Fibres* (**Hann**), *Journal of Applied Science* (**Hann**), *Journal of the Textile Institute* (**Hann**), *Journal Sosioteknologi Indonesia* (**Hann**), *Ars Textrina* (**Hann**), *Visible Language* (**Lonsdale**), *Journal of Fashion Marketing and Management* (**Sinha**), *Color Research and Application* (**Xiao**), *Nostell Priory* (**Bristol**), *Art History* (**Checketts**), Brill Middle Ages series (**Frojmovic**), advisory and editorial boards of the European Association of Asian Art & Archaeology (**Fukuoka**), *New Encounters: Art, Cultures, Concepts* series for I. B. Taurus (**Pollock**), *Journal of Visual Culture* (**Pollock**), *Rethinking History, and Subjectivity* (**Pollock**), *Museum & Society Journal* (**Graham**), *Art & the Public Sphere* (**Day**), *Historical Materialism* (**Day**), *Selva* (**Day**), *Corridor 8* (**Thurston**), *Information as Material* (**Thurston**), Rawlinson Centre for Anglo-Saxon and Manuscript Studies series, Western Michigan University, (**Karkov** through 2020), Manchester UP Medieval Literature and Culture series (**Karkov**), *Journal of the British Archaeological Association* (**Karkov**), *Medieval Ecocriticisms* (**Karkov**), *Leeds Studies in English* (**Karkov**), *Old English Newsletter* (**Karkov**), *Arts-Open Access Journal*, Basel, Switzerland (**Taylor**), Centro de Investigacion en Artes, Universitas Miguel Hernández (**Lewandowski**), Kentler International Drawing Space, New York (**Lewandowski**), Erland Williamson Art Fellowship (**McGonigal**), *Utopian Studies* (**Morgan**), Société Charles Fourier (**Morgan**), *Cultural Critique* (**Mowitt**), *Kronos* (**Mowitt**), *Perspectives on the Art Market* (Bloomsbury) (**Wesgarth**), *Colnaghi Journal* (**Westgarth**), University of London's 'Shakespeare and Royal Collections' AHRC project (**Westgarth**), *Oxford Literary Review* (**Prenowitz**). **Engl and Prenowitz** are executive editors of *parallax*. **Thurston** is a mentor with ACME Studios Graduate Bursaries (London). **Graham** collaborates on training with Historic England/Urban Design, the National Trust, and the Smithsonian (2019). **Knifton, Sinha, Harrison Moore, and Stones** are members of the AHRC Peer Review College.

In this REF period staff have been external examiners for PhDs at the following Universities: Anglia Ruskin, Brunel, Chelsea University of the Arts, East Anglia, Eastern Finland, Edinburgh, Essex, Glasgow, Gloucester, Granada, Griffith University (Australia), Heidelberg, Heriot-Watt, Huddersfield, Hull, Kings College London, Kingston, Lancaster, Manchester, Manchester Metropolitan, Maribor University (Slovenia), National University of Singapore, Norwich University of the Arts, Northumbria, Paris 8, Reading, Rennes, SOAS, Sussex, UCL, University of the Arts London, Warburg Institute, University of the West of Scotland, University of Western England, Winchester, Worcester, York, and York St John.

4. Support for and exemplars of interdisciplinary research

The vast majority of research within the UoA is inherently interdisciplinary so requires no special support system. **Bide** researches at the intersection of industrial history and cultural geography. She was awarded a Research Fellowship at the Harry Ransom Center at the University of Texas, Austin, where she worked on a project about historic film and theatre costume design. In the area of Fine Art practice our researchers have made important contributions to both research and the local cultural economy. **Tucker** co-hosted LAND2 a Cross, Multi, Inter, Trans conference collaboration with the Association for the Study of Literature and Environment, and has collaborated with the poet Harriet Tarlo in work on the Humberston Fitties. **Thoma's** research explores art practice in relation to notions of place, environment, and nomadism. As part of an Arts Council funded year-long project **Gardner** combined her practice-based research with work at the Musculoskeletal Biomedical Research Centre (Chapel Allerton Hospital, Leeds), resulting in a body of drawings displayed in the National Institute for Health Research in Leeds. **Engh, Mowitt, Pollock** and **Prenowitz** are members of the World Gender International Research Network. As part of the research group *Aesthetic Form & Uneven Modernity* (University of Leeds, Birkbeck College, University of London, the Universidade de São Paulo's Centro de estudos Demanche e Formação de Sistemas Simbólicos) **Day** works across the disciplines of art history, economic history, and urban studies. **Westland** worked with Colgate and Unilever to develop more accurate ways to measure tooth colour that led to new tooth-whitening technologies and products (including toothpaste that can whiten teeth in one application).

5. Responsiveness to national and international priorities and initiatives

The UoA response to environmental and health priorities has been particularly strong. **Russell's** Surface Skins is used in hospitals to automatically spray hands with antimicrobial solution upon contact with door handles. Obesity prevention is being tackled through information design by **Lonsdale** and **Tang** (in collaboration with the School of Psychology). **Burkinshaw's** research led to the creation of Xeros Technologies, a company which develops virtually waterless washing machines, saving nearly 900,000,000 litres of water over five years. **Blackburn** is founding director of Keracol Limited which develops cosmetic products for skin and hair care from plant sources. **Russell** founded NIRI, a spin-out company specialising in nonwoven materials that has successfully completed 450 co-development projects with more than 200 clients. **Russell** and **Almond** lead the large AHRC creative cluster (Future Fashion Factory: £5.4M), an R&D partnership that also includes Huddersfield University, London College of Art and Textile Centre of Excellence. With over 160 industrial partners Future Fashion Factory aims to address three key challenges for the UK fashion and textile industry: digitally connected and sustainable processes, immersive digital communication and data analytics, and skills and education. **Hemingray** worked with Lenzing fibres in Austria to help develop an economically viable model for increased use of sustainable man-made fibre. **Lonsdale** is working on information design of leaflets that prepare patients for colonoscopy. **Stones'** AHRC Design Fellowship (2014–2016) enabled her to work alongside Public Health England to publish a set of public health infographic guidelines that are the number 1 resource on Google for Public Health

infographics and have been accessed thousands of times. **Stones** was also selected for and acted on the AHRC Expert Review Panel for the Covid-19 Rapid Response Call and is working on a COVID rapid-response Innovate UK award to develop and deploy non-contact hand sanitisers.

6. Indicators of wider influence, contributions to and recognition by the research base

Honours, awards, and keynote talks are a measure of research esteem and impact on our fields. Staff have delivered numerous keynotes and invited lectures, amongst which are: **Blackburn** at the Society of Cosmetic Chemists 71st Annual Conference (2017), Merck Green Chemistry Symposium (2018), Innovations in Chemistry Towards Sustainable Urban Living Conference, Toronto (2016); **Cheung** at the 50th Annual Convention of the Artificial Intelligence and the Simulation of Behaviour (2014); **Fatehrad** at AAH (2019), University of Arts, Venice (2018); **Day** at Universidad Nova de Lisboa (2017), Courtauld (2017), International Architectural Humanities Research Association (2014); **Hann** at the International Textiles and Costume Congress (ITCC) Istanbul (2015), International Textiles and Costume Congress, Bandung (2017); **Knifton** Textile Society Conference (2018); **Rea** at the African Studies Conference (2019); **Westgarth** at the Minneapolis Institute of Art (2016); **Graham** at the Universities of Massachusetts (2017) and Turku (2017); **Harrison Moore** at the University of Calgary (2020-covid delayed); **Karkov** delivered the annual Toller Lecture, University of Manchester (2017) and Jarrow Lecture (2020-covid delayed), and keynotes at N/EMICS UCL (2017), and conferences at Durham University (2016), Oxford University (2016), and Stanford University (2015); **Mowitt** at the Universities of Frankfurt (2014), Cardiff (2017), Basel (2019), and Centre for Humanities Research, University of the Western Cape (2015–19); **Pollock** at the Tate (2016), Oslo University (2017), AAH conference (2018), Stanford University (2019), Freud Museum (2019); **Stones** at the European Public Health Conference, Stockholm (2017); **Taylor** at the Theorem conference (Anglia Ruskin University 2017) and Artist's Books Now: PLACE symposium (British Library, 2018); **Tucker** at Of the Earth: a conference exploring art, design, writing and the environment (2014); **Westland** at XI Congreso Nacional del Color, Spanish Colour Group, Ourense (2015).

Staff have received the following honours and awards: **Blackburn** received the Silver Medal for 'Prolonged contributions to education and academic research from the Society of Dyers and Colourists (2016); **Blackburn** was elected Fellow of The Society of Dyers and Colourists (2017); **Blackburn** also received the Society of Dyers and Colourists Centenary Medal for the best paper in the journal Coloration Technology, for two consecutive years in 2017 (awarded 2018) and 2018 (awarded 2019); **Carr** received a Silver Medal from the Worshipful Company of Weavers for "outstanding contribution to textile education and research"; **Tucker** won the 'Scenes of Everyday Life' category for the Jackson's Painting Prize 2020 (6 awards were made out of 5634 international submissions); **Karkov** is a Fellow of the English Association, and was awarded an international visitor scholarship at the Humanities Institute, Stanford (2015); **Bristol** is a Fellow of the Society of Antiquaries; **Day** was a resident fellow at Maumaus, Lisbon (2016), and was a Getty Library Fellow (2019); **Mowitt** is a Fellow of the Institute of Advanced Study, Princeton, and was Mercator Fellow at Johan Wolfgang Goethe Universität (2019); **Rea** was a fellow at the Sainsbury Research Unit (2017); **Thurston** was Visiting Fellow in Contemporary Writing at the University of Pennsylvania (2016), Visiting Research Fellow at MIT (2020), artist in residence at the Irish Museum of Modern Art (2014), and was awarded the Paul Hamlyn Foundation award (2020); **Stainforth** was awarded postdoctoral research fellowships at the Universities of Edinburgh and Melbourne (2018); **Pollock** is a Fellow of the Art History Association and received honorary doctorates from the Courtauld (2019), University of Tallinn

(2019), and is a member of the Royal Flemish Academy of Science and the Arts. **Pollock** also won the Holberg Prize (2020) awarded by the government of Norway for her outstanding scholarship in and profound influence on the discipline of Art History and related fields, and for her role in the creation of feminist art history as an academic field.