

<p><b>Institution: Manchester Metropolitan University</b></p> <p><b>Unit of Assessment: 34 Art and Design: History, Practice and Theory</b></p> <p><b>a. Overview</b></p> <p>MIRIAD (Manchester Institute for Research and Innovation in Art and Design) provides the structures for research in UoA 34 at MMU. Focussed on design and the expressive arts, it supports applied and practice-led research in the creative industries on local, national and global levels.</p> <p>We are submitting 54.95 from 114 research active staff with an annual core budget of 1.2 million GBP and 55 million GBP investment in subject facilities. We host one of the largest art and design research degree programmes in the UK with 75 FTE postgraduate researchers in 2013 (PGRs) and 43 conferments over the period. We have attracted over 3 million GBP in external funding since 2008.</p> <p>The six Research Centres (RCs) in MIRIAD, linked through the MIRIAD Management Group (MMG) broadly map onto departmental structures in Architecture, Art, Craft, Design, Media, and Visual Culture. The RCs distribute resources for project development, provide avenues for curriculum development, and enable transdisciplinarity and the exchange of expertise within and without the institute. Through RCs individuals and groups share good practice and specialist knowledge within the research community.</p> <p>MIRIAD links, advises and supports staff as a conduit for communication and the peer review of grant applications and research outputs. It is a gateway for researchers to other HEIs and external agencies such as the Research Councils, ACE, British Council, and the private and public sectors in the creative industries both here and abroad. To maximise KE MMG membership includes the Director of our enterprise unit, Creative Manchester.</p> <p>MIRIAD works in concert with University systems of support and other subject Research Institutes. We are committed to the growth of a well-supported research community of staff and students integrated with teaching, learning and knowledge exchange</p> <p><b>b. Research strategy</b></p> <p>MIRIAD and the Manchester School of Art have shared aims for research with the objective of developing research capabilities commensurate with sustainable national and international levels of excellence. MIRIAD pursues the practice, production and dissemination of an increasing quantity of high-quality research to establish a local, national and international profile. The objective is to increase internal and external research funding and the quality of the research infrastructure and facilities (physical, staff, cultural).</p> <p>In 2003, 2006 and 2010 MIRIAD published strategic plans supplemented by annual operational and financial plans. Corresponding with our aims and objectives a post-2007 review showed research grew between 2001-07 in line with the stability of the research structures and environment. As predicted in RA5 RAE08 post-2008 was a period of 'development, synthesis and consolidation of recognisable successes and collaborations'. We planned for sustainability, 'blue skies' and collaborative cross-disciplinary research in and beyond the academy in a mould that stretches back to the MIRIAD-organised <i>Art Loves Science</i> series of open meetings in Manchester 2006/7 and includes joint PhD supervision with Manchester Knowledge Capital and Computer Science and Informatics, for example. We engage with the changing territories of knowledge and new technologies to interrogate dominant cultural viewpoints and identify emergent patterns in the international cultural landscape and global environment.</p> <p>Strategically, we aim to serve, educate and develop the academic and professional needs of the creative economy. We encourage debate and disseminate knowledge to a variety of audiences through publication, exhibition, new technologies and media, events and consultancies. We offer postgraduate research studentships for responsive mode projects and industry based collaborations alongside flexible modes of attendance and opportunities for continued study and life-long learning.</p> <p>Our strategic vision is supported by the University's corporate objectives to 'deliver research that has a real impact on current and future global challenges' and to 'ensure that educational and scholarly activities of the University are enriched through its interdisciplinary and multidisciplinary activity' (<a href="http://www2.mmu.ac.uk/about/corporate-strategy/research/">http://www2.mmu.ac.uk/about/corporate-strategy/research/</a>). In 2013 the new University Research and Knowledge Exchange (RKE) office set out to develop partnerships between Faculties, Research Institutes and Central Services in recognition of the convergences between</p>
--

research and KE, staff and postgraduate research, social and economic impact and the wider community. The University commissioned a Research Review chaired by Sir David Melville placing research and KE at the centre of the University's mission and produced a 'roadmap for research to 2020 and beyond' with the aim of becoming a top 50 research university

### **c. People, including:**

In contrast to earlier exercises our selection criteria for REF2014 are more rigorous and less inclusive. In line with our RAE08 vision of 'development, synthesis and consolidation' for REF2014, of the 114 research active staff considered, 54.95 FTE are submitted, of which 12 are ECRs.

MIRIAD has a diverse research community complementary to our focus on global perspectives and society's challenges within the discipline. Correspondingly, Research Ethics are embedded in our procedures. The University's commitment to the Equality Act 2010 informs Human Resources strategy and is set out in MMU's Vision for Equality and Diversity and the Single Equality Scheme (SES). Underpinned by principles of transparency, consistency, accountability and inclusivity these policies guide our approach to the research environment,

The SES Action Plan provides for mandatory staff development and includes 'Managing Diversity e-learning'; 'Disability Equality Action Training for Managers'; 'Equal Opportunities and Diversity Essentials' and 'Disability Equality Action Training for Staff'. Participation is reviewed through the Professional Development and Review (PDR) scheme. These are complemented by sessions on the REF 2014 Code of Practice.

The Core MIRIAD staff include 5.5 Research Professors (Aulich, Brown, Buchler, Dixon, Hawley, Hyatt); 3 Senior Research Fellows (Haley, Kettle, Ravetz); 4 Research Fellows (Eden, Heys, Mitha, Scott); 3 Research Associates (Sykas, Trustram, Zhou); 1 Director of Arts for Health (Parkinson); 2 staff who are 0.5 Research Fellows and 0.5 Teaching contract staff (Brittain, Gartside) and administrative support staff. All Fellows and Associates are working on independent research. The RCs are co-ordinated and led by dedicated Leaders (RCLs): Architecture (Canniffe); Art (Mitha); Craft (Dixon); Design (Shaw); Media (Heys) and Visual Culture (Sykas). MIRIAD supports 1 Professor Emerita, Lucy-Anne Hunt, on the meeting of cultures of East and West in Byzantium, and 4 Honorary Visiting Fellows: Betty Coatsworth publishes research on the Middle Ages; Professor, Corvinus University of Budapest, Kristof Fatsar's research focuses on the influence of British culture on Central European landscape architecture at the turn of the 18th and 19th centuries; Barney Hare-Duke and Jeremy Theophilus bring expertise in ceramics and craft in India.

Research is prioritised within the University workload model which recognises active researchers who have reduced teaching loads. For all staff 20% of contract time is ring-fenced for research. Institute-funded grants are available for project funding. RCs can allocate small bids up to £1,000. Bids over £1,000, following peer review at RC level, are scrutinised by MMG and are referred or recommended for funding by the Director.

Sabbatical leave is supplemented by financial support for conferences, exhibitions, publications and catalogues; travel for research; pump-priming research projects; and underwriting external bids.

Research development is monitored according to our objectives, which are designed to extend research participation; support research development; enhance conditions and the quality of research; and to profile quality research through effective dissemination, staff recognition and promotion. They are the Performance Indicators through which we measure the Unit's success.

We have achieved a significant, planned and sustainable increase in numbers of PGRs (FTE 1996–2000 – av. 36; 2001–2007 – av. 50.5) rising to 60.5 in July 2007 (RAE 2008) and to 75 FTE in 2013, with a consequent increase in research degree completions at all levels (1996–2000 – 4; 2001–07 – 27; 2008–2013 43). Subject supervision is enhanced by MMU trans-disciplinary teams (e.g. English, Geography, Science and Engineering) and by teams with external bodies (e.g. Manchester Art Galleries; Manchester City Council; Castlefield Gallery, Manchester; University of Aberdeen; Goldsmiths; Imperial War Museum, London).

### **i. Staffing strategy and staff development**

MIRIAD's philosophy is to challenge and refresh established knowledge. A healthy institute requires a critical mass of PGRs and early career researchers (ECRs). An annual programme of research and KE funding supports new and ECRs: all new posts require candidates who are

research active and/or of high professional standing. We have contributed 12 ECRs to the submission with active links to external theatres of impact. As an aid to recruitment and retention new and established staff can be confident that their research will be supported, critically encouraged and facilitated. They join 47 mid-career researchers and 6 experienced professors. In addition to support for ECRs we are equally committed to support for mid-career researchers. This profile constitutes a strong and sustainable group.

All new staff are inducted to the research environment and receive guidance on research and KE policies and procedures: including grant proposal writing, PhD supervision, equality and diversity. New staff have been successful in gaining awards from The Research Grant Accelerator to conduct work leading to a full grant proposal (Kennedy £5K, Shirley 5K) and the HEIF-funded KE and Innovation Fund for proof of concept ideas (Heys £5K, Mitha £50K). RCs provide start-up support for new appointees to establish research projects. Academic subject units fund staff development and doctoral fees where appropriate. Teaching staff are actively encouraged to pursue PhDs (either part-time, or, more rarely, by publication), and 13 academics are currently engaged in this way.

The HERA exercise maps progression from Research Associate through to Research Professor. There have been research promotions for Allmer (moved to Edinburgh University, October 2013), Haley, Kettle, Zapp, Colman and Ravetz. There is also a contribution zone system for promotion for staff who are exceeding expectations - in 2012/13: Shaw for her work as RCL for Design, and Parkinson for connecting research to the curriculum. MIRIAD also employs postdoctoral researchers. MIRIAD provides research induction and mentoring, a researcher development programme, and RCs encourage those new to research to join existing projects. The principles of the Vitae Concordat are embedded in this provision and provides the framework for the annual monitoring of PGRs.

Strategic Areas are targeted by staff development events and programmes, such as weekly cross-Institute transdisciplinary research presentations and a writing for practice group (led by Ravetz). Future technologies are addressed by Code Creatives through monthly presentations and a 3D Print Project uses a new in-house rapid prototyping research facility (Brown, Eden, Hyatt, Lewis) and provides introductory technical training in CAD.

The University Graduate School provides mandatory training for staff in PGR supervision, examining and chairing. As part of the sustainability and staff development strategy and the Concordat principles, ECRs and staff new to PGR supervision are recruited to new registrations. They join experienced supervisory teams before progressing to mentored Director of Study positions. New staff are encouraged to participate in the MIRIAD subject-specific Researcher Development Programme (RDP) written by Haley, Ravetz and Trustram with input from PGRs and ECRs. The programme is published on Vimeo to support part-time and PGRs unable to attend. The University's commitment to staff development was recently recognised by an Investors in People "Gold" Award.

Since 2008, the number of PGRs has increased to 75 FTE and practice-led PGRs are now in the majority. To support the expansion a Senior Research Fellow in Practice as Research (Ravetz) was appointed in May 2012 to assist in the running of the programme and to act as a deputy to the Head of Research Degrees (Aulich). A two-year fixed-term full-time Research Degrees Associate (Trustram) was appointed to manage Designing Our Futures (cf. REF3a), to provide additional skills development and to support progression by giving advice at proposal and transfer stage and annual monitoring. An AL Research Methods Support Tutor provides individual methodological support.

## ii. Research students

Our student body is of a sufficient critical mass (75 FTE) to enable the provision of subject-specific research training and skills development and to freely support students and their supervisors in the creative arts across the North West. The MIRIAD Research Degree programme in Art & Design is the largest in the region and is of proven excellence. In 2012 the programme satisfied the criteria for excellence required by the AHRC BGP2 North West Consortium Doctoral Training Partnership (NWCDTP). Led by the University of Manchester other members are the Universities of Keele, Lancaster, Liverpool, Salford and the Royal Northern College of Music. This November we received the news that the NWCDTP had been successful in its bid to the AHRC for a total of 200 doctoral awards across the range of subjects in the Arts and Humanities for the

period 2014-19, In the NWC the MIRAD RDP has the role of leading the Visual Arts and Design Pathway (including Architecture). Previously, in 2009 the programme made a successful bid for the AHRC's Block Grant Partnership competition (MMU was one of only four post-1992 institutions to receive an award). In 2012 the programme satisfied the criteria for excellence required by the AHRC BGP2 North West Consortium (NWC). Led by the University of Manchester other members are the Universities of Keele, Lancaster, Liverpool, Salford and the Royal Northern College of Music. Since 2008 our programme has received a total of 530kGBP in awards from the AHRC BGP; Collaborative Doctoral Awards; Collaborative Research Training; Collaborative Skills Development; and Cultural Engagement funds. Since 2008 it has led the regional Practice As Research Consortium North West (PARCNorthWest has 14 departments in 12 HEIs as members). Under that banner we coordinate and sponsor two regional ECR and PGR-led events annually, and provide a virtual and geographical platform for the sharing of subject specific research training on a regional basis (see [www.miriadonline.info](http://www.miriadonline.info)).

MMU has well-established and commended processes for inducting, supporting and monitoring PGRs, in particular 'good practice...contributing to the academic standards and the quality of learning opportunities in the...comprehensive training and development opportunities provided for postgraduate research students' (QAA Audit, 2010). The University Graduate School and local teams have continued to develop support structures and systems for students. All PGRs engage with the Vitae Research Development Framework and are provided with guidance at their Induction, through online provision and at annual monitoring. All scheduled meetings are recorded and signed by supervisors and PGRs. Improved, detailed and thorough approaches to PGR support has led to an increased completion from 27 in 2008 to 43 in 2013.

Our PGRs represent an international community of scholars from the UK, mainland China, Hong Kong, Taiwan, Estonia, France, Germany, Greece, Turkey, Saudi Arabia, Portugal, Norway, India, Iran, Iraq and Hungary. Strengths in PGR provision up to 2013 (not including MA by Research) lie in Fine Art (including curatorship, illustration and health) 17; Architecture (sustainability and new media design) 10; Urban and Landscape Design 8; Pedagogy 2; Craft 7; Design 3; Lens-based 7; Visual Culture and Management 16; Film Studies 1; Digital Media 3.

The Institute has attracted annual full-time studentships from the University and outside bodies including the AHRC and has committed significant internal investment into an industry-based studentship scheme. In '08 we were successful in supporting a candidate for an ORS bursary. Many present their research internationally. In the period up to 2012, for example, our PGRs exhibited at over 20 arts festivals and galleries in Europe and Asia and have contributed papers to 16 national and international conferences (2013 below). Institutional and regional events are advertised, accessed and archived at [miriadonline](http://miriadonline) which is becoming increasingly important as a platform for skills development, research training and public engagement both within MIRIAD and regionally through PARCNorthWest. MIRIAD has pursued links to industry through this mechanism and has established itself as a pro-active partner in the BGP2 NWC (cf, REF 3a, a and b, Impact Context and Approach to Impact).

#### **d. Income, infrastructure and facilities**

##### **i. Income**

HESA expenditure 680,000 GBP. In addition, staff have been funded 2,529,262.89 GBP raised externally through e.g. individual ACE grants, contributions from galleries, travel money for research etc.

##### **ii. Infrastructure**

At university level research is managed through the Research & Knowledge Exchange (RKE) whose Director of Research and team of three professorial section heads (for Research, KE and Postgraduate Studies respectively) reports to the Office of the Deputy Vice-Chancellor for Strategic Planning.

The RKE office supports the research community to find and negotiate funding, to manage projects and their funds, and to develop commercial opportunities. RKE administers the Academic Board Research Degrees Committee, The Code of Practice and the Regulatory procedures for PGRs. It promotes the University's external profile in research and consultancy; generates policies for the development of research, industrial and professional consultancy in association with the Senior Management of the University; coordinates the above policies; administers, maintains,

monitors and evaluates HEFCE funded research and continuing education and other funded research and consultancy. In addition to RKE researchers have access to a Research and Enterprise Office comprising 4 administrative staff.

MIRIAD's governance links to the Deputy Vice-Chancellor via the MIRIAD Board which includes the Pro Vice-Chancellor for Research (Professor Dunleavy), Director of Research (Professor Raper), the two Deans/Pro Vice-Chancellors (Professors Crow and Renfrew) and Research Institute Director (RID: Professor Hyatt) and advises on strategic development and resource management. Sharing of good practice and strategic cross-institutional collaboration occurs via monthly Research Institute Directors meetings. MIRIAD's strategy is aligned to the priorities of the University's strategic plans for research, which are to build on RAE 2008 and improve the research profile of the University by increasing the proportion of staff actively engaged in world-class research. The University also aims to deliver research of real impact on current and future global challenges and to ensure that its educational and scholarly activities are enriched by interdisciplinary and multidisciplinary research whilst forming partnerships to maximise research performance on a regional, national and global level.

The Research Institute (RI) has locally managed subject-based RCs. Following a review post-RAE 2008 (signalled in RA5), the RCs were restructured to map more closely to academic groupings. Monthly meetings of the RCs and monthly RC Leaders' (RCLs) meetings, chaired by the RID, ensure the democratic ownership of the research agenda. This structure ensures issues are addressed and channels the various research individuals, groups and projects towards communal debate and strategy. The MIRIAD Management Group (MMG) is chaired by the RID and monitors research quality and targets. It includes HoDs and RCLs so that all RCs connect to each other and to academic Departments. It connects staff to PGR research through the Head of Postgraduate Research (Professor Aulich) and representatives from the Research Degrees Programme. The Associate Dean for Research in Curriculum (Professor Hawley) and HoDs ensures the connection of research to taught programmes. To identify KE opportunities MMG also includes the Director of Creative Manchester. The sharing of information, circulation of ideas and collaboration is at its heart. The MMG assists the monitoring, evaluation and sharing of good practice. It meets twice per term and exercises criteria for peer review and scrutiny of large research bids. Through this structure, the community advises the Director upon appropriate allocation of budgets.

Through these mechanisms researchers are connected to the centre of the University (2 Deans/Pro Vice-Chancellors – Crow and Renfrew - sit on the MMG) in a collective endeavour. Support for projects that cross disciplinary boundaries and have application and real-world relevancy is ensured. The UoA is further informed by the expertise of an industry-based Art and Design External Advisory Board of end-users and professionals.

PGR views are gathered through annual monitoring, student representatives and a student/staff forum. The Faculty Research Degrees Group and the Head of Faculty Research Degrees who makes recommendations to the Academic Board Research Degrees Committee oversee registration, supervisory arrangements, transfer, research ethics, extensions, suspensions and examination. A Director of Studies manages the student's progress and ensures research and training targets are met. An independent reviewer carries out annual monitoring. In addition to the student development programme run by the Graduate School and the RKE, students have a weekly subject specific Researcher Development Programme and writing workshops. Individual methodology surgeries and on-line materials are available. PGRs present their doctoral registration and transfer proposals to staff and peers. Recruitment is enhanced by annual studentships competitions. An annual PGR conference at the University gives the opportunity to present a paper or poster and network with peers. Teaching experience is also available through Teaching Assistantships.

We have a lively community. We hold social events and the PGRs organise seminars to complement the cognate research groups which make a significant contribution to the PARCNorthWest regional consortium and the AHRC funded Skills Development Programme 'Designing Our Futures' (2012-13).

The University has established the MMU Postgraduate Passport. PGRs are required to participate in, and reflect upon, a range of activities for employability skills.

### iii. Facilities

Based on the re-furnished first floor of the Righton Building off Oxford Rd opposite to the

entrance to the new Manchester School of Art Building, MIRIAD is at the heart of the main MMU campus. Our longstanding facilities for staff and PGRs (office spaces, kitchen and meeting rooms, open-plan social space, quiet room, digitally equipped workstations, telephones, photocopying and storage facilities etc) have developed a strong research community. A £55M investment in new estate and upgrading of existing facilities and workshops for the UoA opened in 2013. It includes studio areas for practice-based PhD students, an important area we have developed since 2008. Since RAE2008, a total of £750K has been spent on specialist facilities available for research, including HD cameras and projectors and portable generators for on-location filming, shimatronic knit design software, PC-operated single-head embroidery machines, radio frequency wood welding systems, new kilns for glass blowing, ceramic A3 digital printers, digital laser cutters, Hasselbad and Nikon photography equipment, digital seminar rooms and a lithopress for printmaking. MIRIAD has made strategic investment in state-of-the-art rapid prototyping equipment for research by staff and has appointed expert Research Fellows (Eden, Heys, Scott, 2012). This adds to the specialist PC and Mac digital media labs; the North West Film Archive which preserves moving images from the region; a materials store; and a Visual Resources Centre. The University Library houses one of the largest collections of art and design material in the UK. It has held Customer Service Excellence standard since 2008 and offers information skills training programmes. MMU Library Services houses the MLA Accredited Special Collections Museum, which is host to a rich collection of 3D objects, archives and books (described in section e below).

#### **e. Collaboration and contribution to the discipline or research base**

##### **i) Overview**

A 2013 MIRIAD survey shows there are 180 external collaborations, 130 professional activities, 82 links with industry. Staff have made 26 contributions to conferences, received 25 invitations to deliver keynote addresses, made 80 conference addresses, held 33 editorships and curatorships, written 12 reports and 20 reviews. They have won 52 prizes, received 7 honours, received 163 lecture invitations, ran 44 practice-based colloquia or master classes, held 25 visiting fellowships or appointments, and completed 31 residencies. Staff have had 327 selections for major exhibitions, 40 selection for panels, consultancies. 270 pieces of staff work has been acquired by and contained in public or private collections. 235 pieces of work have been contributed to books/magazines etc.

In the period there have been 8 invited editorships and 12 invited curatorships. Staff hold 20 advisory roles, 11 chairs of companies/arts organisations, 4 memberships of Research Councils and ACE, and 17 memberships of selection committees or juries. 13 referee academic publications and 9 have assessed Research Council bids.

##### **ii) Postgraduate Researchers**

In the REF period we have had a total of 43 conferments, up from 27 in 2008. Our students have gone on to form an essential contribution to the infrastructure for HE and professional research in Art and Design. Staff have externally examined 52 research degrees.

In 2009–11 we led an AHRC Collaborative Research Training Specialist Award for a Regional Consortium for research training in the creative arts and industries: PARCNorthWest (MMU, Glyndŵr, Liverpool Hope, Liverpool John Moore's, Salford, RNCM, Bolton, Edgehill, Lancaster, Chester, Cumbria, and VITAE NW Hub [<http://parcnorthwest.miriadonline.info/about/>]). The consortium now also includes the universities of Manchester and Liverpool. We led and won a PARCNorthWest £60K AHRC bid 'Designing Our Futures 2012-13' to deliver a training programme to PGRs and ECRs in the region to build skills, expertise, networks, knowledge exchange opportunities and to disseminate research findings and enhance career potential (cf. REF 3a section b). Partners are Castlefield Gallery, Cornerhouse, Manchester City Galleries, Whitworth Art Gallery, Tate Liverpool, The Foundation for Art and Creative Technology (FACT), Andalucían Centre for Contemporary Art (CAAC), Seville; Playgen; Manchester Digital Laboratory (MadLab); Serious Games Institute; Site Gallery; ArtPlayer; Spacebody; The Science Museum; Museum of Science and Industry; The National Media Museum; Idanha-a-Nova Municipality, Portugal; Centro Cultural Raiano; GeoPark Naturtejo; Escola Superior Politécnica de Idanha-a-Nova; Arvon Foundation.

Many students present their research nationally and internationally. Though unavoidably list-

like, examples of student successes will indicate the quality of our PGR global engagement with the discipline field.

Examples of student presentations at national and international conferences in the academic year 2012/13 include: The SHARE/NIDA Summer School on Artistic Research; Paradox Fine Art: The Fine Art European Forum; Politics of Photography, Contemphoto: International on Contemporary Photography, Nâzim Hikmit Cultural Centre, Istanbul; The Aesthetics of Activism – Strategies of Visibility, IVSA 2013 Annual Conference: The Public Image, Goldsmiths; Cambridge University's Centre for Research in the Arts, Social Sciences and Humanities 'Things: Early Modern Material Cultures' seminar series; 8th European Feminist Research Conference, Budapest; 1st Global Conference: teenagers and contemporary visual culture, Oxford University - Mansfield college; Envisioning Landscapes: Adaption & Renewal Conference, University of Liverpool; International Conference 'Scaleless-Seamless? Preforming a less Fragmented Architecture and Education, European Network of Heads of Schools of Architecture (ENHSA), Munster, Germany; International Conference 'Rethinking the Human in Technology-Driven Architecture', European Network of Heads of Schools of Architecture, Center for Mediterranean Architecture, CMA. Chania, Crete; Ekphrasis: From Paragone to Encounter, IAWIS-supported conference, University of Hull; First International Conference on Digital Technologies for the Textile Industries, Manchester University.

Students have also exhibited at arts festivals and galleries in 2012/13 and examples include: Oktober Filmfest, Ritz Cinema, Vaasa, Finland; Tris Vonna-Michell, BALTIC Centre for Contemporary Art, Gateshead; Devi Art Foundation, Gurgaon, India; Contemporary Music & Visual Arts Festival, Athens, Greece; Salon Indigo at Premiere Vision, Parc d'Expositions Paris Nord Villepinte; Soft Estate, Group Exhibition at Bluecoat, Liverpool.

### iii) Archives

We make archives and collections available to researchers. The Archive Collection in the MMU Special Collections holds a range of source material. Artists' books is the largest collection outside of the V&A; Book Design celebrates the finely printed and illustrated book; and The Children's Book Collection complement the Manchester School of Art Collection which comprises fine and decorative arts, with particular emphasis on the Arts and Crafts movement and contemporary crafts. The Manchester Society of Architects' Library holds important and rare books. The Mary Butcher collection is one of the most extensive and high quality collections of Baxter type prints in the UK. The North West Film Archive preserves the history of the region in moving pictures. The Poster Collection holds an international collection of posters. The Schmoller Collection of Decorated Papers comprises mainly European and American papers used for book covers and endpapers. Victorian Ephemera is preserved in two major collections. The Downing Pattern Book Collection contains an important group of manufacturers' pattern books. The Arts for Health Archive has been developed since 2008 to make public material from the beginning of the Arts in Health movement at MMU in the 1970s. These are active, publicly available archives both within MIRIAD and supported by the MMU Library.

The UoA and external researchers are supported by the Visual Resources Centre. In particular, the Design Council Slide Collection has attracted approx £150,000 of external funding, including £40,000 from the AHRC for a project in 2008. Through these externally-funded projects, 13,200 images and associated catalogue records have been made available on the Visual Arts Data Service's website (<http://www.vads.ac.uk/>) leading to external enquiries and image requests. Images from the Design Council collection have been supplied to numerous external researchers for publication, e.g. British Design 1948–2012: Innovation in the Modern Age, V&A, 2012. Images on the Centre's Flickr site (<http://www.flickr.com/photos/mmuvisualresources/>) have received over three quarters of a million views since October 2009.

### iv) Collaboration and contribution to the discipline or research base by Research Centre

In addition to the research outlined in our Impact Case Studies, considerable collaborations and contributions are being made to subject areas.

**Architecture Research Centre:** Continuity in Architecture is hosted by the Manchester School of Architecture (a joint School with University of Manchester). It looks at the contemporary and historic urban fabric to influence the construction industry's attitudes towards the built environment,

leading to more enlightened attitudes to sustainability and heritage. Canniffe, for example, has published *Urban Ethic: Design in the Contemporary City* and *The Politics of the Piazza: The History and Meaning of the Italian Square* in 2008. He has made keynote presentations at many international conferences including the American Institute of Architects UK and the Continental Europe Conference, April 2009. Other keynotes concerned the history, culture and language of architecture, such as the De Bosis Colloquium in Italian Studies at the Harvard University Department of Romance Languages and Literatures Cambridge Massachusetts, April 2009, and 'The Postmodern Palimpsest: Narrating Contemporary Rome' conference at the University of Warwick, February 2011.

**Art Research Centre:** Arts for Health works closely with external partners and impact in Parliamentary debates and international governments' initiatives are outlined in the Impact Case Study. To develop the archive we have, employed a 0.4 Research Fellow (Dr. Robert Langley Brown) and for 3 months an AHRC Cultural Engagement Fellow, and in 2013 received a modest Wellcome Trust grant to help with a scoping exercise.

The RC hosts the China Project which maintains research exchange with Chinese Higher Art Institutes, contemporary artists and curators. Partners include the Central Academy of Fine Arts (CAFA) Beijing, Guangzhou Academy of Fine Arts (GAFA), Xiamen University, Suchow University and OCAT, Shenzhen. The Project organised an exhibition 'Issues of Urbanisation: Realisation and Reaction' in Guangzhou Museum of Art in 2013, attracted 164,000 visitors following the model of State Legacy (cf. Hyatt Impact Case Study) to explore art, the urban and ecology.

The Ecology In Practice (EIP) research group exists between disciplines and sectors on local and international levels. It addresses issues of land use, climate change and policy on future habitation. Haley's *A Walk On The Wild Side* saw fifteen ecological arts walks in Manchester, Bacup, Taipei, Gabrovo and Hong Kong. Each engaged with the city as a living organism, promoting urban field studies to observe the effects of climate change, and empower communities to take part in democratic planning processes. A film of the walks was screened on Manchester's Big Screen, toured China, Taipei and California. In 2013, the Ecology In Practice (EIP) research group was successful in bidding to host the next Society for Ecological Restoration World Conference which attracts 1,200 delegates.

Professor Büchler was recognised for his contribution to Fine Art by the Paul Hamlyn Foundation Awards for Artists 2012: "His works offer new ways of perceiving the conditions of contemporary culture and its dependence on the possibilities opened up by history." He also received the Northern Art Prize 2009: "Büchler has been consistently influential to a huge amount of people throughout his career as a practitioner and a teacher." 2013, Rawlinson was also nominated for this award which was won by retired MIRIAD Professor, Margaret Harrison (1996-2003).

Ravetz research partnership with Castlefield Gallery carried out a pilot study of artists' continuing professional/talent development in Manchester and effects ACE policy through quarterly meetings.

**Craft Research Centre:** Another of our strengths is in ceramics. As an acknowledged authority on printed ceramics Scott leads an international network (*Ceramics and Print*, 2013). He shares an interest in political narratives in ceramics with Professor Dixon, whose contribution to this field was acknowledged in the inaugural V&A ceramics residency in 2009. (*Restoration series*, 2010-2013) Exemplified by the Pairings Project transdisciplinarity is central to the RC's concerns. Instigated and led by Kettle, makers from different craft disciplines and institutions came together for brief but intensive periods of collaborative practice, discussion and reflection, resulting in touring exhibitions, conferences and a major publication. Pairings involved over 38 practitioners. Collaborating HEIs included the Universities of West England, Sunderland, Falmouth, Chichester, Swansea and Salford; Cardiff College of Art and Design; the Royal Academy of Fine Art, Antwerp, Belgium; Kings College, London; Craft Study Centre, Farnham; and the Victoria and Albert Museum. It contributed to the subject area by pushing at traditional boundaries: participants were paired across material practices with the aim of disrupting conventional responses. Funded by MIRIAD as Pairings, and with ACE funding for Stroud Festival where Pairings II was shown it featured in *Craft* magazine ('Collaboration through Craft' Sept./Oct. 2013, pp. 69) and *Ceramics Review* (Issue 249, 'A Lull in the Conversation' May/June 2011) MMU hosted the international conference 'Pairings,



Conversations and Collaborations' (2010) and was documented and critically appraised in Ravetz, Felcey, Kettle (eds) Collaboration through Craft, Berg, 2013.

We are building research connections with ANU, Canberra: Kettle taught at Canberra School of Art while making further Pairings connections; Ravetz held a research scholarship at the National Film and Sound Archive in Canberra. In 2013, Ravetz was awarded a "Visiting Fellowship with grant" with the Art and Anthropology departments at Australian National University under the auspices of the Humanities Research Centre and Dixon presented at ANU's International Ceramic and Print Conference, 2013. These projects conducted research into craft collaboration and translations, redefining notions of craft and establishing new modes of practice, expanding the application of digital and other technologies to broaden the context of craft and facilitate new production across disciplines. The projects elevated the value of craft within commercial design contexts. They created a model for sustainable development whilst establishing new socio/economic networks through educational, museological and community infrastructures to position craft within an expanded cultural field.

Our research in India spotlighted as an Impact Case Study has involved us in partnerships with the National Institute of Design, the Ahmedabad Heritage Cell, Arts Reverie, A Fine Line, The British Council and the Goethe Institute, amongst others. Contemporary craft dialogues have been initiated and developed with Industrial Embroidery (Kettle, Miller, Settrington, McKeating, Sykas).

**Design Research Centre:** As acknowledged by government and recognised by the AHRC, design is an under researched area. The Design RC is the newest of the centres and currently supports 7 research students. Membership is good (52) and attendance at meetings healthy. Curated by Shaw in partnership with the British Council, an exhibition for 32 of its members was held at the National Museum of Architecture and Design, Ljubljana, Slovenia (2013) (<http://www.mao.si/Exhibition/Seamless-The-Digital-in-Design.aspx>). It explores responses to the concept of 'Seamlessness' with an emphasis on technology, materiality and fabrication.

The Folk Research Group within the RC has members from Art History, Textiles, Graphic Design, Fashion and Illustration. They are interested in the hand-made, locality, memory, and the material culture associated with everyday life and popular taste. 'Folk arts' are ill-defined and to develop research in the area, they established the 'Folk Arts Research Network' with Simon Costin, the Director of the Museum of British Folklore. In collaboration with Illustration Research, Glyndwr University and ASP Katowice and Muzeum Etnograficzne, Krakow the group organized an exhibition and international conference, The third international 'Illustration Research' Symposium 'The Function of Folk', 2012, on the social function of art and design through the interdisciplinary exploration of traditional skills and knowledge and everyday forms of creativity: (<http://cargocollective.com/lemonmerchant/The-Function-of-Folk>). The event was featured on polish radio and social media.

The group also organized, Enid Marx and her Contemporaries; Women Designers and the Popularisation of 'Folk Arts' in Britain 1920 – 1960, (2013) as a collaboration with Compton Verney. It looked at the way that 'folk art' and particular types of design practiced by women have been omitted from the narratives of art and design history. The Centre has also worked with Manchester Art Gallery to make their Mary Greg collection public.

The arts officer for Wrexham county, invited the Folk Research Group to curate an exhibition of 'folk' inspired contemporary artwork at Oriel Wrecsam: And Also, October 2013. The large Polish, Welsh and English communities in Wrexham will be engaged through workshops and skill sharing sessions. The group initiated the zine, Ministry of Frogs, to celebrate the presence of 'folk arts' within contemporary visual culture.

In 2010, the RC established a partnership with the Valuing Older People Team, Manchester City Council. The aim is to develop design research to contribute to the Age-friendly Manchester programme. In 2011, a steering group was established, involving council members, Design and Architecture researchers and research students to share good practice and develop other areas of work in Manchester and internationally. The Industry-based studentship, 'Intergenerational Design and the Urban Environment' and an M.Res studentship, 'Cross-generational communication: Digital design for an ageing society' are part of this group.

**Media Research Centre:** This 'digital community' originates in different disciplines, including architecture, ceramics, fashion, filmmaking, media, textiles, and theory. Examples can be seen in

## Environment template (REF5)

the outputs of Brown, Eden, Hawley, Higgins, Hyatt, and Zapp. Since the CALM project in 1998 Brown has been a world leader in rapid prototype technologies and art. And he has increased the number of UK artists using the technology in art schools today. Since 2008, he has formally collaborated with the School of Art-Sculpture, Herberger Institute for Design and the Arts, Arizona State University, Phoenix, USA; co-curated international 3D print exhibition, Hand Eye Mind, Experimental Art Gallery, Habitat Centre, New Delhi, India for the World Education Cultural Congress 2013. After seeing the exhibition in New Delhi, Brown was invited by University of Ulster and the Arts Council of NI to organise an international 3D Print/Data Visualisation exhibition at University of Ulster. Brown and Hyatt established a MIRIAD partnership with the sponsor Cass Sculpture Foundation for Digital Research to plan an international exhibition and conference of 3D Print and its implications for sculpture at Cass Sculpture Foundation, and touring to Hyderabad; Singapore; Yellow River Arts Centre (set to be the largest and most important arts facility in Northwest China); and Denver. Brown is a member of the newly established Agents of the 3D Revolution, South Africa, and 2013 participated by invitation in an exhibition and conference at the University of Johannesburg Gallery.

The Code Creatives group organizes public conferences and in-house discussion groups in collaboration with Digital Innovation, which developed out of our Creative Manchester initiative to investigate code based design and art practices. <http://diginmmu.com/research/audio-visual-motion-be-code-creative-644>. Curated by Zapp Analogue is the New Digital, was an exhibition across digital networks in Manchester 2010 and as a digital exhibition for Siggraph in the USA (<http://www.siggraph.org/connect/digital-arts/siggraph2011/>). Hyatt is on the Board of the Siggraph Digital Arts Committee with special responsibility for international outreach. Zapp also works in the area of digital textiles/fashion, Third Skin - A Textile Media Sculpture (2011-13) was shown at Siggraph International Art exhibition in Vancouver, Canada, and in solo exhibitions in Mumbai and Ahmedabad, India. Hurlstone, Russell and Kettle have made significant contributions to the field of digital textile printing and embroidery. Eden leads the field in the 3-D printing of 'crafted' artefacts, collaborating with KHIO, Oslo, on experimental ceramic 3D printing R&D; Potclays Ltd. on development and testing of ceramic powder for 3D printing; and Jonathan Keep developing a Computer-controlled Coiler. Michael is a Crafts Council Trustee. Since 2012 his works have been acquired by Aberdeen Art Gallery; New Walk Art Gallery, Leicester (Art Fund Award); National Museum of Sweden; Cooper-Hewitt Museum National Design Museum, New York, USA; plus international private collections.

Hawley has published a phone app enabling historic movies from North West Film Archive collections to be called up in situ in city places to contribute to the tourist experience of Manchester.

**Visual Culture Research Centre:** In all 28 contributions have been made to the establishment or enhancement of archives, databases, forms of dissemination including the digital. In addition to the work featured as our Visual Cultures of Conflict and Social Change Impact Case Study, staff contributed to The Story of Things: Reading Narrative in the Visual (2009), a conference, exhibition and book (Stilled Lives, Righton Press) drawing on the materials in the Special Collections. The research infrastructure is enhanced through the cataloguing, databasing and interpretation of archives (Posters of Conflict, Design Council Slide Collection, Pattern Books Project). Sykas, as an example, researches our Downing Pattern Book Collection to inform museums, heritage organisations, architects dealing with historical sites and buildings, and local industry. Sykas worked with Turnbull Prints Limited (Ramsbottom, near Bury) on the Turnbull & Stockdale archive (1881-1964) as part of a Leverhulme Project Grant (2011-12) and the company is working to re-house it and integrate it into business operations. Sykas is working with A. Brunnschweiler & Company (Hyde, Cheshire) on a "fonds level" catalogue and database of their archive. This catalogue will become a working tool for the company when the archive moves to China, as well as preserving local memory for generations of workers involved with the various firms of the Calico Printers' Association. Short projects for Jacobs UK and Bruntwood, contributing to a plan to interpret Plantation Mill, a former printworks; and to the understanding of Portland Buildings, the merchanting base of Louis Behrens and Sons in central Manchester, led to a permanent display in the entrance of the building. Sykas contributed G.P. & J. Baker material for brochures describing the history of the company and its use of archives in contemporary design. Sykas answers enquiries on a broad range of subjects for museums and heritage organisations in the UK and

**Environment template (REF5)**

abroad, including: Chatsworth House, Forssa Museum (Finland), Gallery of Costume (Manchester), Mitsubishi Museum (Tokyo), Nike (Product Design: Club Football), Nottingham Trent University Lace Archive, Rachel Kay Shuttleworth Collection, Scottish Turkey Red Project, Teknisk Museum (Norway), and the Victoria & Albert Museum. Advice on textile pattern books provided to the Geffrye Museum is included in the museum's web-based "Search the Collections" facility. He worked for the London Borough of Bexley on the "Fabric of our Town" project, led to a web-based publication on the history of Charles Swaisland & Co. of Crayford. See: <http://swaislands.crayfordhistory.co.uk/history/history-of-swaislands/>

Curatorial practices are widespread across MIRIAD (Aulich, Hyatt, Shaw, etc). As an example of innovative practice as an addition to the Arts for Health work, Gartside has curated Mortality: Death and the Imagination, Holden Gallery, (2013) in collaboration with Parkinson, Director of Arts for Health. A series of events explored medicine, health and well-being. Gartside also created Pavement, an applied model of curatorial practice to develop a gallery from scratch, with a simple remit of showing work of international standing. There is a rich history of art being shown in shop windows and department stores and the gallery was designed to reflect on this by making use of a window space, originally part of a Drapery store built in 1905. Brittain's curatorial and editorial investigations of the history of the magazine and the artist, word and image, especially in relation to Eduardo Paolozzi's work with *Ambit* and *New Worlds Magazine*, reveal the way that new technological formations/consumerism informs both new wave writing and art.

**v) In Conclusion**

Since 2008 (cf RA5 RAE2008) we have carried out a large number of collaborations and entered into partnerships with numerous outside organisations to produce work that contributes to the research base. This has been undertaken partly in response to global change and technological advance. Alongside our traditional strengths, we have developed strategies to encourage research in design and responded to technological change through our work into digital media across the disciplines.

The above demonstrates achievement within the first of the five types of impact which we describe in REF3a: contribution to the discipline. In the Impact Case Studies we will go on to demonstrate the further four types of impact: raising awareness, social impact, economic impact and impact upon institutional practices and policy.