Report on Reflection & Projection Workshop
8th, 9th & 10th November 2005, The Lighthouse, Glasgow

Introduction

This short report summarises presentations and discussions that took place on the 8th, 9th & 10th November at a workshop organised for representatives of the Designing for the 21st Century Research Clusters. Over 65 delegates from these research clusters attended the event. An itinerary for the three days is shown in Appendix 1.

Workshop Objectives

The workshop was structured to achieve the following objectives:

- To provide a forum to sharer experiences and new knowledge
- To explore the drivers of research cluster success
- To identify and verify future research directions
- To take stock of emergent research projects and funding criteria

Day 1 Overview

17.30 – 18.30 Welcome

Professor Tom Inns (Designing for the 21st Century Initiative Director) provided an overview of how the Designing for the 21st Century Initiative had evolved during 2005. He talked about the many workshops and events that had taken place as part of the unfolding journey of the research clusters. He also described the important role now being played by the Designing for the 21st Century Advisory Group, which had met in September 2005 for the first time. Details of the Advisory Group membership are shown in Appendix 2. Tom then introduced the Reflection & Projection workshop objectives and activities before highlighting plans for future initiative events. These include:

- Launch of a Phase 2 Research Project Call in Dec/Jan
- Holding a one-day clusters conference on Tues Mar 7th 2006 at RIBA, London
- Publishing an edited book with chapter contribution form each cluster during 2006

Day 2 Overview

9.00 – 10.30 Presentations

A series of presentations were made by the following:

- Dr Stuart MacDonald, Director of the Lighthouse (Scotland's Centre for Design, Architecture & the City and Member of the D21 Advisory Group) welcomed delegates to the Lighthouse and described some of the activities undertaken by the centre through a wide variety of project platforms.
- Maria Panagiotidou, PhD Student (University of Dundee) provided an overview of research she had been undertaking over the summer of 2005 into Designing for the 21st Century Research Cluster operation

Short presentations were then given of the activities and findings of the following research clusters:

- Orientating the Future: Design Strategies for Non-Place
  Professor Richard Coyne, University of Edinburgh
- Digital Design, Representation, Communication & Interaction: Screens and Social Landscape
  Professor Gunther Kress, Institute of Education, University of London

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- The Emotional Wardrobe
  Professor Martin Woolley & Dr Sharon Baurley, Central Saint Martins College of Art & Design, University of the Arts
- Interrogating Fashion: Practice, Process & Presentation: New Paradigms in Fashion Design for the 21st Century
  Sandy Black, London College of Fashion, University of the Arts
- Designing Physical Artefacts from Computational Simulations and Building Computational Simulations of Physical Systems
  Professor Mark d'Inverno & Professor Jane Prophet, University of Westminster
- Embracing Complexity in Design
  Professor Jeffrey Johnson, Open University

11.00 – 12.30 Workshop 1: Design Futures

Professor Tom Inns introduced this workshop session. He explained the importance of positioning research projects within the Designing for the 21st Century Initiative in a future context. For the purpose of the workshop session 2020 had been chosen as a useful point from which to explore the future design disciplines and their knowledge needs. In order to build a sense of the pace of change Tom reviewed key developments that had taken place over the last 15 years, since 1990.

Delegates worked in groups of eight and were given 60 mins to explore the following two questions:

- What will the design disciplines look like in 2020?

  Will we still be thinking in terms of existing discipline title: fashion designer, architect, industrial designer, interface designers, mechanical engineer? Will new disciplines emerge to design the new convergent products and services that might be prevalent in 2020? Will new disciplines emerge to deliver design thinking into new domains? Will design education and the design profession be radically restructured? .... Will little have changed? ......

- What new knowledge and understanding will the design disciplines need by 2020 to maximise their potential?

  What are the forms of knowledge and understanding associated with design? How are these changing? What relevant knowledge and understanding can research deliver?

The outputs from discussions were recorded on prepared flip-chart sheets. A transcript of these outputs is listed in Appendix 3

13.30 – 15.00 Presentations

Short presentations were then given of the activities and findings of the following research clusters:

- Nature Inspired Creative Design
  Dr Thorsten Schnier, CERCIA, University of Birmingham
- Understanding & Supporting Group Creativity in Design
  Dr Hilary Johnson, University of Bath
- Spatial Imagination in Design
  Dr Jane Rendell, Bartlett, University College London
- Spatiality in Design
  Dr John Stell, University of Leeds
- Discovery in Design: People Centred Computational Issues
  Professor Ian Parmee, University of West of England
- Design and Performance (Emergent Objects)
  Dr Calvin Taylor & Joslin McKinney, University of Leeds

15.15 – 17.00 Workshop 2: Project Portfolios, Gallery 5

Professor Tom Inns introduced this workshop session. Having developed a view of the future knowledge needs of design in the morning workshop he explained it would now be appropriate to build a picture of the types of research project that were being contemplated by the 21 research cluster groups. The aim of this session was to provide the Research Councils with an overview of the type and scale of research projects that were being developed from the research cluster activities during 2005, information that would help fuel the development of the Phase 2 Research Call document.

Representatives of each research cluster were asked to identify at least 6 research projects that could be funded by the Designing for the 21st Century Initiative.

Prospective projects were then arranged in a 3x3 matrix. The x-axis of this matrix indicated project priority (from the project initiator's perspective). The y-axis indicated level of research risk (again from project initiator's perspective).

The exercise demonstrated an appetite for research projects of variable scale.

Day 3 Overview

9.00 – 10.30 Presentations

Short presentations were then given of the activities and findings of the following research clusters:

- Technology & Social Action: Design & Civil Society
  Dr Andy Dearden, Communication & Computing Research Centre, Sheffield Hallam University
- Ideal States: Towards a Joint Knowledge & Operating Framework for Design & Medical Practices
  Professor Alastair MacDonald, School of Design, Glasgow School or Art
- The Healing Environment
  Dr Jacques Mizan, Kings College London, University of London
- Designing Healthy & Inclusive Public Outdoor Spaces for Young People
  Professor Lamine Mahdjoubi, University of West of England
- The View of the Child: Explorations of the Visual Culture of the Made Environment
  Judith Torrington, University of Sheffield & Dr Cathy Burke, University of Leeds
- Synergy Tools to Guide the Effective Development of a Meta-Design Methodology
  John Wood, Goldsmiths College, University of London

11.00 – 12.30   Criteria Exploration Workshop

Professor Tom Inns introduced this workshop. He explained the importance of identifying appropriate criteria for future research calls associated with the Designing for the 21st Century Initiative. Through the workshop activity he invited delegates to discuss what criteria associated with the Initiative might be. He started by giving each group of delegates 6 criteria that could be used to review future funding proposals. He asked each group to reflect on the criteria and indicate whether the criteria were thought to be appropriate or not. If the criteria were deemed to be problematic he encouraged delegates to have a go at rephrasing the statement. Finally he asked each team to identify four additional criteria of their own. The outputs from this workshop exercise are shown in Appendix 4

13.30 – 14.30 Presentations

Short presentations were then given of the activities and findings of the following research clusters:

- Sensory Design and its Implications for Food Design & Presentation in the 21st Century
  Brent Richards, The Design Laboratory, Central Saint Martins College of Art & Design, University of the Arts
- Multimodal Design Imaging
  Gordon Mair, DMEM, University of Strathclyde
- Design Performance
  Dr Jillian MacBryde, DMEM, University of Strathclyde

14.30 – 15.00   Workshop review

Professor Tom Inns provided a review of the workshop activities and again highlighted some of the future activities that would be supported through the Designing for the 21st Century Initiative.

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APPENDIX 1:

Itinerary: Reflection & Projection Clusters Workshop, Lighthouse, Glasgow

Tuesday 8th November

17.00   Registration with Tea & Coffee served, Vitra Conference Suite, Tom Inns

17.30   Workshop Introduction, Vitra Conference Suite, Tom Inns

18.30   Supper
        Bouzy Rouge, 111 West Regent Street, Glasgow

Wednesday 9th November

9.00   Welcome, Vitra Conference Suite
        Dr Stuart MacDonald, Director, The Lighthouse, Glasgow

9.15   Cluster Journey, Vitra Conference Suite
        Tom Inns & Maria Panagatidou

9.30   Cluster Experiences, Vitra Conference Suite

10.45   Tea & Coffee, Level 5

11.00   Workshop 1: Design Futures, Gallery 5
        *This session will explore what the design disciplines might look like in 2020 and what
        new knowledge and understanding they will need to maximise their potential*

12.30   Lunch, Level 5

13.30   Cluster Experiences, Vitra Conference Suite

14.45   Tea & Coffee, Level 5

15.00   Workshop 2: Project Portfolios, Gallery 5
        *This session will explore potential future projects that could be supported by the
        Designing for the 21st Century Initiative*

17.00   Close

19.00   Transport from Lighthouse to House for an Art Lover

19.30   Drinks reception & dinner, House for an Art Lover, Bellahouston Park

Thursday 10th November

9.00   Review, Vitra Conference Suite, Tom Inns

9.15   Cluster experiences, Vitra Conference Suite

11.00   Workshop 3: Funding Criteria, Gallery 5
        *This session will explore the criteria that might be used to select projects that could
        be funded through the Designing for the 21st Century Initiative*

13.45   Cluster experiences, Vitra Conference Suite

14.30   Workshop review, Vitra Conference Suite, Tom Inns

15.00   Workshop close

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APPENDIX 2: Advisory Group Membership

Name	Role/Department	Organisation
Dr Andrea Cooper	Head of Design Knowledge	Design Council
Professor Rachel Cooper *	Research Centre for Arts & Design	University of Salford
Professor Bill Gaver	Design Department	Goldsmiths College
Mr David Humphries	Director, Design Strategy	PDD Ltd
Professor Geoff Kirk	Chief Design Engineer	Rolls Royce plc
Dr Fiona Lettice	School of Management	University of East Anglia
Dr Stuart MacDonald	Director	The Lighthouse
Professor Stephen Scrivener	Head of Research	Chelsea College of Art and Design
Professor Alan Short	Department of Architecture	University of Cambridge
Professor Stuart Walker	Faculty of Environmental Design	University of Calgary
* = Chair		

APPENDIX 3:

Design Futures Feedback

Detailed below is the information recorded on flipcharts during the Design Futures Workshop session. The information has not been edited in any way and represents the views of workshop delegates.

What will the design disciplines look like in 2020

- What will 2020 be like?
    - Geographic Context: fashion & Energy
    - World view: Local & Global, North, South, East & West
    - What assumptions lie behind the original question

- Definition of design 'smart thinking' and 'intelligent making'
    - Modes of materialising
    - Design aspect in every activity
    - 'anti' design creating false needs

- Questioning the notion of discipline
    - What is a 'designer'
    - Who is a 'designer'
    - Individual versus collective/collaborative

- End of discipline
    - Convergence culture
    - Distributed networks
    - Project configurations
    - Open source design
    - Reconfiguration – distributed agency
    - Designer as facilitator – user based design – adaption
    - Regulation and responsibility, increased litigation, legal entities

- User/customer
    - New franchises – enablers
    - Customisation – relationship to technologies
    - Ethics – Human condition, privacy – new design ethics

- Futurescaping
    - Utopian – scenario building
    - Retro 'like the past' security
    - Future unknown
    - Transformative mechanisms
    - Individualism and choice
    - Anticipatory trends cycles

- Role
    - Translator
    - Facilitator

- Process versus product
- Generic capabilities – cross disciplinary support
- Disturbed automation
- Massive end-user involvement via ubiquitous computing capability
- 'Seamless' design processes that cross multiple disciplines
- Computational systems with learning capabilities that can assimilate user preference and advise on design requirement
- Beyond designing things to designing people

- Mediators rather than experts
- Social engagement versus social engineering
- De-mistifying domains
- Designer as action researcher – Generate initial design questions not answers to exiting questions

Terms	Processes	Problems
Sustainability	Need to move outside academic education (structures, frustrations, professionals) - ethical issues - resources - synergy	To impact on political decision making – state and corporate interests
Interdisciplinarity - collaboration - cross-disciplinarity - multi-disciplinarity - trans-disciplinarity moments to share knowledge	- education markets - why this term - the problems are more complex - support structures - emergent disciplines - horizontal and vertical knowledge - how do you acquire skills - what skills will you need - what happens to professions	Framing & creating problems
		Imagining solutions Dreaming of sense and purpose Need for time, lack of time Identity & relation Time and knowledge

Educational trajectory is towards market driven design – technology based, digital individualised / customised. But traditional artefacts & practices still exist within niches

Interdisciplinary new groupings will emerge for example, experience design, sustainability design … and others that are impossible to predict

[how] education (time log)
- School persistent traditional model of education
- Nerdism (engineering) focus on technical skill only
- (learning by doing)
- University academic conservatism – elitism … alternative pedagological models (design by research)
- Curriculum experimentation
-

-ve
- design as branding
- branding agencies, design as agent of economic imperatives
- in time with market but not much else
- versus Creative partnerships with built in pedagolical skill sensitivity

+ve
- Rise of visual knowledge at the expense of text
- Emerging centrality of visual meaning
- VISUAL KNOWLEDGE

The need to secure design professionalism

Social / cultural contexts
- Sub-cultures
- Customisation
- Post-production
- Reception of design
  - Different meanings
  - Adaptations
  - Approximations
  - Colonisation
  - **Rise of little narratives**

Evolution:
- Reconfigured disciplines due to technology eg nano, micro, bio
- Boundaries between disciplines changing
  - Some will collapse
  - Some become more specialised
  - Newly established
- Mobililising of tacit knowledge
- Rebalancing of relationships between practice and knowledge
- Role of user in design
- Brokers
- Ethical social responsibility
- Education will change – just in time – professional bodies – effective vs efficient

- International collaborative design driven by globalisation and increased cultural awareness
- New expertise associated with designers and users
- We will see non-design professionals educated in design
- Anti gravity enabled
- We will see more design by team – core expertise – specialisms and multiple tasks
- The split of fundamental techniques and specialisms split between machines, people and teams
- The notion that everybody can design – a secure environment with freedom to design
  -

What new knowledge and understanding will the design disciplines need by 2020 to maximise their potential

- Interdisciplinatory communication
- Knowledge and understanding of other cultures and societies (especially China)
- Rapid social changes – changes in user needs
- Issues of finding balance – quality of life and demographic changes
- Cognitive variances – communication and collaboration
- New technologies and new problem solving solutions
- More sophisticated intelligence designed into products and systems
- Environmental issues / resources / sustainability

- More interdisciplinary people [Not just at team level]
- More personal development – knowing where to get expertise
- Fewer constraints – techniques no longer driven by materials – more creativity needed from individuals
- Not answering questions but asking the questions

- Changing role of communication between designers and users
- Mobilising tacit knowledge
- Rebalancing relationship between practice and knowledge

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- Cultural considerations – remote market – consumer as market
- Redefining innovation – where it happens, who does it, what it is its relationship to diffusion
- Understanding the role of designers in the supply chain
- Educating young designers in effective design

- Team works
- Transferable skills
- Very rapid access to knowledge 'ultimate google'
- Interaction with users
- Complex systems science
- Knowledge of context of your expertise
- Communication skills
- Design for mass-customisation
- Common design language 'multi-modal'
- Design adoptive and evolutionary systems
- Environment and user/culture knowledge

- Visual literacy related to core disciplinarity
- To understand the disciplinarity / rigour skills-specific
- Codification of traditional design knowledge skills
- Child/adulthood threshold definition – cultural institution of adulthood
- critical agency in relation to the market impact global/local democratisation of process

- A new ethical framework for design (as anticipatory practice)
- A better adhoc 'imperfect' contingent understanding of the human condition
- Holistic practices that are based on incompatibility of discourses
- Becoming more au fait (creatively) with the new technologies
- Designers as entrepreneurs within the many layers of quasi-design traditions. Designers as Translators as Reporters, entredonneurship

- More emphasis on processes as well engineered materials
- Awareness of social/cultural implications
- Designers as mediator, facilitator and expert
- Communication awareness across disciplines and boundaries

- Local-global thinking
- Understand how different communities work / different scales
- Re-evaluate / re-conceptualise design

APPENDIX 4: Criteria Exploration Workshop

Detailed below is the information recorded on flipcharts during the Criteria Exploration Workshop session. The information has not been edited in any way and represents the views of workshop delegates.

Criteria Feedback (Detailed below are the responses of workshop delegates to the six criteria [shown in bold] that were discussed during part 1 of the Criteria Exploration Workshop)

1.   **The proposal should position research plans in the context of work undertaken by Designing for the 21st Century Clusters during 2005-**

Yes – general invitation should be made to join existing clusters

No – the clusters are not comprehensive

Unsure – Needs rewording, should build on, but not exclude new people and ideas

No – Call should reflect this, not the criteria

Suggest rephrase '*building on the* work undertaken ....' We don't know about the ones that got away

Yes - but should not be restrictive: 70% existing 30% new

Yes – With the provision that in so far as reflected by the call, which should reflect the work and findings of the clusters

2.   **The proposed project should involve cross-disciplinary collaboration**

Note – take acre to carefully define: cross-disciplinary, interdisciplinary, multidisciplinary

Yes – No comments

Unsure – Good novel projects could emerge within a discipline

Yes – No comments

Yes – No comments

Definitions are problematic involve is to weak suggest '*... rooted in* cross disciplinary collaboration'

Yes – to include arts, humanities science and technology

Yes - essential

3.   **The proposed project should articulate how new knowledge and understanding could become embedded in design practice**

Yes – Suggest rephrase: The proposed project should articulate how new knowledge and understanding could advance design

Unsure – Provocation needs to be allowed, embedded suggests physicality. Need to be wary of differences between usefulness and relevance. High-risk projects need to be allowed

Yes- and or relevance to design education

Unsure – this could exclude the 'blue sky' research

Yes – No comments

Yes – First 5 years should be more speculative

Yes – no comments

4.   Researchers named in the proposal should be able to prove a track record in the type of research proposed

No – Suggest Rephrase: People named in the proposal should be able to prove a track record/expertise in their processes, methods and subject components in the proposed research

Unsure – *Some* researchers named in the proposal should be able to prove a track record in the research types relevant to that proposal

Yes – Suggest rephrase: Relevant track record across the team

No consensus on this – Suggest rephrase '.. in the *area* of research proposed'

Yes – Suggest rephrase: '... prove a track record *relevant to* the type of research */and or practice* proposed'

Yes – loosely interpreted to allow novel researchers and support

Yes – the track record of the researchers should be relevant to the content and the objectives of the research

5.   The proposed project should be set in the context of where design might be in 2020

No: Suggest Rephrase: The proposed project should be forward looking and visionary

Yes: The proposed project should be set in the context of a projective ambition for design in context (a predictive vision)

Yes – and where design needs to impact now

Yes – suggest rephrase 'The proposed project *must show relevance* to the context of where design might be in 2020'

Yes – Rephrase: '... in the context of *the emerging an potential needs of the 21st Century*'

Unsure 50% split in the group .... Too speculative for some, too prescriptive for others, could be difficult to complete by the applicant

Yes – the proposed project should be set in the context of the future

6.   The proposed project should demonstrate the international significance of the proposed work

Yes

No – The proposed project should demonstrate the *transnational* significance of the proposed work

Yes – change 'significance' to 'quality'

Yes – Rephrase: 'The proposed project should have potential for international benefits'
Yes – must be explicit in the criteria … but locally based projects should be value eg action research

Additional criteria (Identified by participants during part 2 of the workshop exercise)

- Should engage with the wider community: inclusive of non-academic stakeholders (rank 3)
- Cutting edge high risk encouraged. Design as risk
- Coherence, identity, significance the 'big design idea'
- Promotes design as a way of thinking

- Contribute to the enrichment of the understanding of design as a discipline
- Relevance to beneficiaries
- An element of provocative originality
- Create a new audience

- Should identify potential benefits to stakeholders
- Should have appropriate plans for dissemination
- Should have a clear plan of work, project management and allow for 'evolution'

- Addressing pressing design issues which include, sustainability, oriental challenges, wellbeing, interrelationship between local and global
- Involvement of new researchers … impact on learning in the filed
- Clear relevance to identified / potential stakeholders
- Evidence of a requisite effective variety of elements (ie heterogeneity and holistic approach

- The proposal should articulate how the work related to ethical, environmental and social sustainability principles
- The proposed project should seek to achieve a genuine impact on identified beneficiaries
- The proposed work should promote innovative approaches and practices in design …. The proposal should articulate how the work will contribute to design practice, education and research
- Why is this design for the 21st Century not something else

- The proposed project should be set in the context of where the world might be in 2020
- The proposed project should realise outputs that can be evaluated by real users
- The project should engage users in the research process
- The proposal should include a framework for cross disciplinary working

- The proposed project needs to demonstrate its social relevance, needs of the user
- The research process should be considered integral to the project
- The outcomes of the project should not be predetermined, leave room for surprise
- Demonstrate that the management structure will support/facilitate interdisciplinary interaction

APPENDIX 5: Documentation

Fig1: Images from the Design Futures workshop

Fig2: Images from the Project Portfolios workshop

Fig3: Images from the Criteria Exploration workshop

Fig4: Images from the Cluster presentations