

First International Symposium of Visual Studies
Production as Research



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Keynote lecture - Carole Gray

A different way of knowing? Inquiry through creative practice



Abstract

The argument I present is that inquiring through creative practice is a legitimate form of research, leading to different ways of knowing from the dominant academic kind characterised by reason and logic, that champions theory as the primary means of generating new knowledge. How can we understand the creative arts - in this instance art and design - as a form of research towards similarly valuable but different ways of knowing?

The lecture maps out my still developing understanding of formal inquiry through practice over the past 30 years, charting its relationship to key turning points in thinking, creative practice and art education during the 20th and early 21st centuries that have opened up new appreciations of different ways of being and knowing, and therefore different ways of doing research.

These new paradigms have helped to shape doctoral research involving practice, and also recent major postdoctoral visual arts research that further explores the possibilities of this form of inquiry and helps articulate different ways of knowing and their cultural value.

Introduction

“ The critical and creative investigations that occur in studios, galleries, on the internet, in community spaces and in other places where artists work, are forms of research grounded in art practice.”

Sullivan, *Art Practice as Research*, 2005 (p. xi)

To be able to confidently make a statement like this is the result of a struggle and debate that has preoccupied the creative disciplines for long enough. Arriving at this belief is a valuable thing; acknowledging that there will always be a need to question and evolve inquiry in the creative arts is the continuous challenging thing. We should not fall into complacency rather remain open to other ways of knowing that take as their starting points different ways of being in the world - ontological positions - allowing these to generate different approaches - or methodologies - for inquiry.

The 20th century saw the rationalist shackles of Enlightenment thinking cut away, and many challenges presented to the predominantly Western/Euro-centric, hierarchical and patriarchal structure of the academy. As Fritjof Capra would say (1983) within this period there were many ‘turning points’ - a questioning of key assumptions and existing paradigms, a shifting of world views. Iconoclastic things happened in social, political, scientific and artistic arenas.

Turning Points

There were turning points in art. Between 1913-1915, influenced by Picasso, Vladimir Tatlin produced his revolutionary corner constructions reinventing the expression of space through the handling of everyday materials. In 1915 Kasimir Malevich made his radical non-objective painting *Black Square*, completely undermining the convention of representation. In 1917 Marcel Duchamp exhibited a ‘readymade’ - a ceramic urinal, shocking us into considering the notion that context confers value and meaning.

There were turning points in science and education. In 1916 Einstein’s *Theory of General Relativity* was published, radically upsetting our notions of time and space. In the same year the American philosopher, psychologist, and educational reformer John Dewey published *Democracy and Education*, initiating new thinking on the nature and value of active learning through experience. In the wake of the 1917 revolution in Russia, Constructivism championed politically charged ideas about the social function of art and artistic roles, throwing up implications for future art pedagogy. The Bauhaus, founded in 1919 constructed new interdisciplinary approaches to creative inquiry, integrating technological developments with humanistic education. This was a pedagogic innovation, driven by key artists and designers like Klee, Kandinsky, Schlemmers, Ittens, and Albers.

There were turning points in the social and political realm as World War conflicts forced struggles for freedom and democracy. In the process new alliances were formed between nations, extending not just political thought but also cultural understandings. New roles and responsibilities for women were recognised and valued, accelerating the development of feminist action and discourse. And dreadful new technologies mushroomed, sparking debate on ethical and moral issues in the aftermath of Hiroshima.

The ‘New Creativity’: post war art education in the UK

The 1950’s saw a major change in British art school education, where the emphasis shifted from the legacy of Sir Joshua Reynolds that valued conformity, imitation, and the acquisition of technical skills, to a belief in the individual

student's creative development. So great was this change that it can rightly be described as revolutionary and deliberately iconoclastic (Thistlewood, 1981). The four principal innovators were artists and teachers Victor Pasmore, Tom Hudson, Harry Thubron and Richard Hamilton, just as that earlier pedagogic innovation at the Bauhaus was led by practitioners. They worked together to form what is still now the basis of all foundation courses in UK art schools and thereby the practical and philosophical touchstone of most current degree and postgraduate courses.

Their views were influenced by the writings of Herbert Read who in 1943 published *Education through Art*. In Read's view "art should be the basis of education" (p1) and could link together all other parts of the curriculum through its capacity to synthesize rationality and irrationality: "... art and intellect are the two wings of the same breathing creature ..." (p106). These ideas of balance and unification come from Read's belief in art as a process, referring to growth and form in nature. The emphasis on process rather than product, on doing, on learning through experience provided the framework for the 'new creativity' in art education. The unifying principle of this approach was the importance of discovery, the development of sensibility, and the combination of intellectual and intuitive faculties. In short, both the teacher and the student needed to be explorers, attuned and responsive, creatively active and critically reflective.

Learning through doing

This 'New Creativity' in art education clearly demonstrated how we learn most effectively through experience - through doing, making, through practice - where the learner is the focus, and the learning occurs in the social context of the art school.

This kind of learning was first explained visually by David Kolb, and is a development from Kurt Lewin's work. Kolb's Experiential Learning Cycle (1984) has four stages:

- the learner's immersion in a concrete experience, followed by
- reflection on that experience, followed by
- conceptualisation (making meaning), and finally
- a stage of planning new actions/experiences, utilizing the learning from the previous stages of the cycle.

So there is a balance between action and reflection, and learning is dynamic and generative. Sixty years earlier Dewey had laid the conceptual foundation for this in his book *Democracy and Education*. He says:

"A possibility of continuing progress is opened up by the fact that in learning one act, methods are developed good for use in other situations. Still more important is the fact that the human being acquires a habit of learning. He learns to learn." (1916, p 45)

Experiential learning relates directly to the theory of constructive learning. A key thinker here is Jerome Bruner, his book *The Culture of Education* being published in 1996. Constructivism is based on three key principles: the first being that learning is constructed as a response to each individual's experiences and prior knowledge; the second is that learning occurs through active exploration; and the third principle is that learning is situated within a social context - interaction between learners.

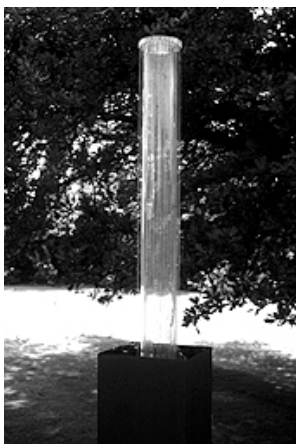
A key text related to experiential learning is *The Reflective Practitioner: how professionals think in action* by Donald Schön (1983). The book is an exploration of how professional practitioners in a range of disciplines (design, planning, management, psychotherapy) think and act - how they set problems and solve

them in real world professional contexts. Schön proposes that much of this activity is personal knowledge, not usually articulated, sometimes indescribable, and that it relies on improvisation learned in practice. In fact he likens it to an intuitive 'art' - "knowing-in-action, the characteristic mode of ordinary practical knowledge". His work builds on the concept of personal knowledge as proposed by Michael Polanyi in 1958. Polanyi argued that creative acts focused on exploration and discovery are fuelled by personal feelings, beliefs and values. This kind of 'knowing' is dynamic - knowing how as well as knowing what. Process intertwined with product.

Creative Inquiry: postgraduate possibilities for the Art and Design sector

In the UK the 'New Creativity' established art as an emergent form of creative inquiry within education, resulting in the vocational award of a diploma. With the advent of the UK's Council for National Academic Awards (CNAA), in the late 60's and early 70's British art schools became part of a generic academic framework in higher education. This was not without its tensions, as artist-teachers and art students characteristically resisted what was seen as the academicisation of art and the possible rationalisation of artistic knowledge. However, this generic framework offered art education new opportunities for study beyond the diploma award, into postgraduate level. Masters degrees involving an element of 'sustained advanced study' provided a glimpse into the world of 'research'. Research had always been the domain of academic subjects, and any research on art and design had been conducted by historians, theoreticians, philosophers, social scientists where the subject of the research - some aspect of art and design - was observed, analysed and re-presented from the objective, distanced stance of the researcher. Practitioners practiced, researchers researched.

In 1978 a radical development occurred - the first PhD for an inquiry involving creative practice was awarded to the sculptor Andrew Stonyer for his research investigating and making kinetic sculpture in which movement is a response to the light and heat of the sun. The research resulted in the construction of maquettes, control mechanisms and a temperature sensitive kinetic sound sculpture.



A written text explored the theoretical and methodological framework of the research, critically reflecting on practice and bringing the thesis to resolution. This pioneering doctoral study blazed the trail for other artists and designers, and within the sector a lively debate about the nature of research ensued.

New Paradigm Research: possibilities for more responsive, situated inquiry

During the 1980's and 90's alternative approaches to human inquiry were being developed and named as 'new paradigm research' - the new paradigm being

post-positivism (key exponents include Guba, Denzin, Lincoln). These approaches embraced critical theory, constructivism, feminism, postcolonialism. Other ways of being and knowing were recognised, encouraging research that was culturally framed (for example the Dreamtime ontology of Australian Aboriginals), that valued indigenous knowledge systems, storytelling and the importance of place. Even in science new research perspectives emerged with chaos and complexity theory challenging the cherished notions of order and linearity, and forcing scientists to acknowledge messiness and uncertainty in generating knowledge (Waldrop, 1994).

Various new methodological approaches were explored and validated. For example, 'naturalistic inquiry' (Lincoln and Guba, 1985) was suggested as a particularly appropriate research strategy where research happens in real situations rather than in laboratory controlled conditions. The characteristics of naturalistic inquiry, for example tacit knowledge, emergent methodologies, negotiated outcomes, have been adapted for ceramic design research (Bunnell, PhD 1998) providing a helpful example of how an artist or designer can re-interpret and extend these concepts in practice-led research.

The conceptualisation of the use of multiple research methods as 'bricolage' (Denzin and Lincoln, 1994, pp 2-3), and therefore the researcher as a 'bricoleur', immediately resonates with artistic approaches to finding things out, in which improvisation and resourcefulness can lead to invention. Similarly the idea of 'action research', a form of inquiry designed to make a difference through active intervention and participation, has the aim of ultimately improving practice - whatever that practice might be. 'Participatory action research', as the name suggests, values and uses the 'lived experience of people' (Reason, 1994 p 328) as a way of democratizing inquiry and in some cases empowering marginalized groups. Participation and 'lived experience' point to the importance of immersion in a particular context in order to make sense of it, and its role in generating situated knowledge.

The work of indigenous researchers in 'decolonizing methodologies' (Tuiwaha Smith, 1999) within the specific cultural research framework of Kaupapa Maori, challenges and resists the dominant Western research model and champions ethical and respectful co-operative approaches. Similarly, in community development 'appreciative inquiry' is an optimistic strategy for change that identifies the best of 'what is' to imagine 'what could be', encouraging democratic participation, imagination and innovation, using a four-stage model of discovering, dreaming, designing and delivering (Cooperrider and Whitney, 1999). The value of 'local knowledge' and culturally specific ways of knowing are central to these research strategies.



“It’s Research Jim ... but not as we know it”¹

So let’s think about what we as creative practitioners mean by ‘research’. Firstly, we are not scientists wearing a white laboratory coat and safety glasses replicating the research of others towards consensus. Neither are we social scientists, although we may be involved in forms of human inquiry. We are artists and designers and creative educators - more like explorers on a journey of discovery, interrogating practice, venturing into new territory, mapping the terrain, locating a position, exploring difficult places, making new maps or re-interpreting old ones, staking a claim to new ground, and eventually knowing where we are and surviving to tell the tale to others.

To be true to ourselves we must acknowledge a different starting point for inquiry. Schön says “a practitioner’s stance toward inquiry is his attitude toward the reality with which he deals” (1983, p 163). This means acknowledging a specific ontological perspective - a way of being in the world, in our case a creative position. According to Guba (1990) methodology should be a consequence of ontology and epistemology - that is to say that methodology is evolved in awareness of what the researcher considers ‘knowable’ (what can be researched, what is an appropriate research question), and in an awareness of the nature of knowledge and the relationship between the researcher and the ‘knowable’.

For instance, the positivist paradigm of inquiry is characterised by a ‘realist’ ontology - reality exists ‘out there’, and an objectivist epistemology - the researcher is detached; methodology is therefore experimental and manipulative. In contrast, the constructivist paradigm is characterised by a ‘relativist’ ontology - multiple realities exist as personal and social constructions, and the epistemology is subjectivist - the researcher is involved; as a consequence methodologies are hermeneutic (interpretative) and dialectic (discursive).

Developing from this we can shape a position for our role as a ‘practitioner-researcher’. In the creative arts we acknowledge individual realities and subjectivity; we recognise the involvement and interaction of the researcher with the research material and context - real situations which are usually complex and changing, requiring flexibility, responsiveness and improvisation; we negotiate understanding through inter-subjective views, personal construction, and relationship to context; research may not necessarily be replicated, (as in science) but the learning from it can be made accessible and possibly transferable in principle (probably not specifics) so as to be useful to others.

The metaphor of ‘journey of exploration’ - or thinking through some other appropriately imaginative framework - helps us to characterise the nature of our research.

Practice-led Research in Art and Design: doctoral degrees

The last 15 years have seen a dramatic increase in the UK in formal research by creative practitioners - so called ‘practice-based’, ‘practice-led’ research - where practice has

- generated the focus for the research - the *what*?
- provided the rationale and context for the research - the *why*?

¹ Press, M. (1995) It’s Research Jim..... *co-design: the interdisciplinary journal of design and contextual studies*, No2, pp 34 -41.

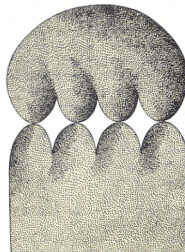
- played a part in the research approach and in developing innovative and creative, but nonetheless rigorous, generative and analytical research methods - the *how?*
- and
- imaginatively made visible/tangible the research outcomes - the *so what?*

The academic framework of higher degrees and formal research programmes helps to ensure a rigorous research process, in which the nature of the inquiry is articulated through explicit questions to be asked in relation to a context, with a clear methodological approach, the outcomes and outputs of which are open to critical review, and that the research has some benefit and impact beyond the individual practitioner-researcher. The aim of doctoral research is to make ‘an original *contribution* to knowledge’.

So why might creative practitioners do research? Here are some examples² of doctoral research from the 1990s:

Example: sculpture (Watson, 1992)

This PhD research arose out of the artist’s belief that introducing chance into the making process in sculpture was an effective way of expanding creative development. The research proposition³ was tested through the making of two new bodies of work generated respectively through choice and chance methods. The research captured new evidence on the complex decision-making processes in developing an artwork. The new artworks visualised and embodied the research concepts, and enabled a direct experience of the argument through materials in space.



The thesis - as argument not solely an extensive written text - comprised:

- two new bodies of sculptural work generated respectively by choice and chance
- an interactive digital database of concepts, processes and materials called ARP - Art as Random Process - introducing chance into the artistic process
- an illustrated written text articulating and analysing the inquiry, its context and contribution to knowledge.

This research informed Watson’s practice and critical position as an artist, laid methodological foundations for other doctoral research, and has had a direct impact on the development of the curriculum in sculpture (at Gray’s School of

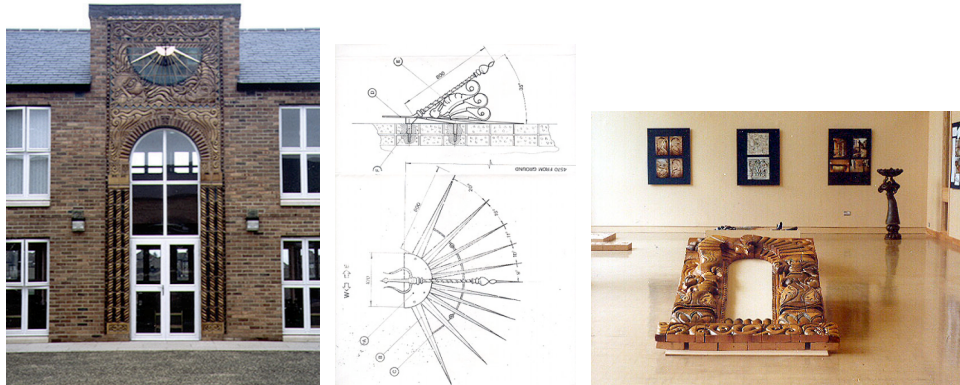
² These examples are ones I have some direct knowledge of; a range of other examples can be found on the Research Training Initiative web site - www.biad.uce.ac.uk/research/rti/ - and on various university web sites. See also Gray and Malins, 2004

³ Proposition rather than hypothesis (as in science), as we are not seeking to prove/disprove a thesis, but propose and interrogate an argument.

Art) which has a distinct philosophy - it demands of its students an inquiring attitude.

Example: architectural ceramics (Wheeler, 1996)

The research proposition in this PhD was that the neglected medium of decorative carved brick could be aesthetically and economically integrated into contemporary architectural developments. The argument was explored and evidenced through the completion of four site-specific commissions in different architectural situations. Evaluation of the new work involved conversations with architects, commissioners and the users and inhabitants of the buildings.



The thesis comprised:

- four different types of site-specific commissions in various public contexts
- a display of project documentation including drawings, material samples, ceramic sculpture
- an illustrated written text articulating the inquiry and discussing its contribution to knowledge.

As in the previous example this PhD has helped to develop practice-based inquiry through, for example, collaborations in public contexts, but as importantly has led to the establishment of a new research-led business venture for Wheeler - *Elfire* - a studio specialising in and advising on architectural ceramics and public art (www.elfireceramics.co.uk). Doctoral research experience has equipped her to negotiate demanding and complex situations and make considered yet imaginative responses.

Example: interactive media (Graham, 1997)

This doctoral research investigated how people interact with new media artworks to understand better the artwork/audience relationship's role in informing the curation and exhibition of interactive artworks. By making use of dynamic media within the written text (video clips in an Acrobat document) the real nature of interactivity could be at least visualised. Furthermore, in the PhD examination the examiners (I was one of them) interacted with the art work *Individual Fancies* that embodied the research concepts so that we actually experienced the argument through our direct involvement in the work.

The thesis comprised:

- an interactive artwork - *Individual Fancies*
- an illustrated written text (available also an Acrobat version with video clips of a curated UK touring exhibition of interactive artworks - *Serious Games*).

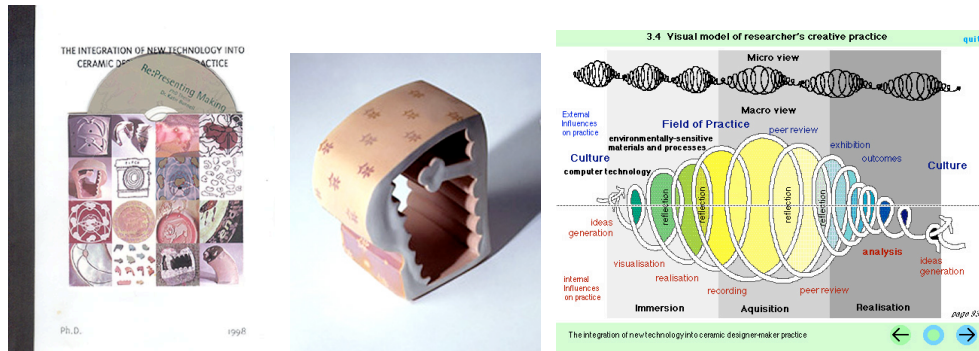
Graham now is the Professor of New Media at the University of Sunderland. She leads major curatorial research projects⁴ between new media industries, key art

⁴ CRUMB - Curatorial Resource for Upstart Media Bliss - www.newmedia.sunderland.ac.uk/crumb/phase3/index.html

galleries and education. She also supervises PhD students and publishes on new media theory.

Example: ceramics (Bunnell, 1998)

This doctoral research investigated the integration of new technologies into design-maker ceramic practice, the argument being that desktop computer aided design and manufacture might enable a more creative and sustainable approach for the individual practitioner.



The thesis - in digital format - was constructed using a series of linked databases allowing for the inclusion of interactive visual material to comprehensively describe the investigation and give direct access to evidence in different forms: still images of experimental and resolved work, video of lustre glaze effects (impossible to capture by still photography), interactive diagrams, 2D visualisation and 3D modelling techniques.

Bunnell is now a Reader in Design at University College Falmouth and leads an innovative research group - *Autonomic* (www.autonomic.org.uk) - which continues to explore the application of new technologies to product design and 'local' manufacture and its relation to creative sustainability in enterprise contexts.

So we can see that artistic practice raises questions that can be investigated through structured research, which in turn not only impacts on professional practice, but also on industry, education, culture and back into the development of research in art and design. The contributions to knowledge are important but contributions to exploring and testing different ways of knowing through the research process are equally significant.

Thesis as Argument: visual and material evidence

What these examples also demonstrate is the notion of 'thesis' as argument - not simply the end product of the research process manifested in a classic bound tome of text (although this can be absolutely appropriate for some research). A convincing argument rests upon claims substantiated by evidence derived from the rigorous use of appropriate research methods. Research involving practice will usually have developed different kinds of evidence in different media which relate to a range of senses - most commonly visual, aural, tactile, for example still and moving images, sound, objects, material samples, site specific work, performance, etc and text. It is important then that these different kinds of evidence are allowed to 'live on' in their original form within the thesis, so that we avoid, whenever necessary, "language doing the work of eyes" (Tyler, 1986). The logical consequence of this is that the thesis could comprise a number of components such as a body of practice (for example art/design works, performance), an illustrated text, other supporting/complementary evidence such as video, material samples, web site, database, etc. Taken as a whole this

provides the basis for a coherent argument which is then explored and questioned through a viva voce (defense) completing the doctoral submission.

“ The role of written to practical work within practice-led research does not fall neatly into two categories ... the two represent different aspects of a complex evolving process which is reflexive: the critical element of the work can be contained as much within a piece of work as in a written text and certainly the other way round” (Douglas, in Swift, 1997 p 20).

So criticality can be sited in both creative work and complementary texts, enabling a convincing argument to be made through the most appropriate media.

Taking Research Experience into New Practices: postdoctoral research projects/programmes

A more recent development has been the research project/programme model encouraged by the establishment in 1998 of a funding body for arts and humanities research - the UK's Arts and Humanities Research Council (www.ahrc.ac.uk). This model is team based involving experienced - usually postdoctoral - practitioner-researchers and doctoral students working together, often in collaboration with others either within and/or outside the academic sector. As such it shifts the Romantic notion of the lone artist/researcher into a new concept of practice-led research through a network of partnerships.

On the Edge

One such research programme - *On the Edge* (initially funded by AHRC, 2001-2004) provides an exemplar of practice-led research in the visual arts (www.ontheedgeresearch.org). This is led by my colleague Dr Anne Douglas, an experienced artist-researcher, and one of the first artists to undertake a practice-led PhD in sculpture. She describes *On the Edge* as follows:

“... a major research programme concerned with raising questions and developing new thinking about the value of artists in the public realm. Within this research ‘the edge’ describes a space of constant change, a threshold of new experience, with the potential for creative transformation.

Used as a metaphor the edge unpins the development of new approaches to the visual arts that evolve in dialogue with people who live in particular places and specific social, economic and political circumstances. In developing artistic approaches through research, we work with other sectors and disciplines including education, heritage, community development and cultural policy. As individuals contribute to and draw from the shared experience of evolving live projects, we refine and develop understanding about the role of the artist in its poetic, social and political dimensions.” (Douglas, 2006a)

On the Edge offers an alternative to the dominant artistic model of production and consumption in being one that values creative co-operation and relationship. In the first phase of the research (2001-2004) a programme of five pilot projects in remote rural locations tested out different ways of engaging high quality visual arts in specific communities of Northern Scotland. Each project took as its starting point an issue of cultural change e.g. the loss of traditional knitting skills on Shetland (www.maakinlab.org), and placed the community at the centre of the creative process, valuing local distinctiveness.



Edge FM, radio station and broadcast by local skateboarders with artist Paul Carter, Museum of Scottish Lighthouses, Fraserburgh, Aberdeenshire, Scotland

Operating as a network involving arts organisations, artists and participants from other sectors, the research opened up spaces for interaction for people who are normally marginalised from contemporary visual art. This generated new experiences of art as *creative participation* - rather than provision - that develop meaning and understanding *through the artistic experience*.

A series of six workshops⁵ enabled the network to critically reflect on the work through the exchange of experiences to develop shared learning and emerging understandings. Complementing the workshops a methodology of ‘gathering’⁶ brought together from various sectors different individuals carefully selected for their unique perspectives in relation to a particular issue within project development.

The publications from the work - project books and web sites⁷ - attempt a new form of critical text, telling the story of the particular artistic experience and reflecting on the learning. They are ‘tools’ to inform artists, arts workers and communities in thinking about artistic interventions in specific circumstances.

“They offer possible tactics and strategies for new arts development that introduce art practices into everyday life, not through performance or presentation of ‘signature’ product, but through the valuing and creative participation of people over a period of time, focused by their specific challenges and desires.” (Douglas, 2006b)

On the Edge represents the current frontier of practice-led research and is now positioned in international networks of artists, writers, and curators who recognise its value and contribution to exploring new approaches to practice, thinking and pedagogy in the visual arts.

⁵ Facilitated by François Matarasso, writer and cultural policy researcher - <http://homepage.mac.com/matarasso/Menu12.html>

⁶ From the Scottish ‘gathering of the clans’

⁷ For further details visit www.ontheedgeresearch.org - *completed projects and books* section

Conclusions

Production as Research ?

The bold proposition advanced by this Symposium - that production (practice *per se*) might itself be considered research needs further attention. Although I have argued for the recognition of inquiry through practice as a valid form of research I have always placed this within a publicly accountable framework - academic and/or professional - where the inquiry is intentional, pursued with rigour by the individual artist/designer or teams, and is open to scrutiny and challenge during the process, as well as at the end.

Many practitioners would argue that what they do day to day in the studio is research - although this may not be explicitly articulated as such. In his book *Art Practice as Research* (2005) Graeme Sullivan characterises many examples of artworks and artists practices as research - including the Mexican artist Damian Ortega's *Cosmic Thing* (2002). However, it seems to me that these artworks and practices have been named as research not necessarily by the artists themselves but by other commentators. This retrospective conferment by others of the status of the practice *as research* and the artwork *as research output* I think is questionable, and allows the artist to leave the critical and contextual/theoretical framing of the work to others. If the artist declares an intentional inquiry at the outset - a new kind of 'manifesto'⁸, explores and tests new creative forms and practices, and takes initial responsibility for the critical reflection, analysis and communication of that inquiry then I understand this is 'production as research', and the artwork - probably as a corpus of work, not a single artefact/product - can embody and communicate the research insights through a variety of visual and material evidence as in the 'thesis as argument' concept. We move from exhibition to exposition - from obfuscation to revelation, and the sharing of new understandings from the inquiry.⁹

In the past few years some important contributions to thinking about creative arts research - its methodologies and its value - have come from researchers in Australasia. For example, Estelle Barrett's work (2004) explores the role of creative arts research in articulating and demonstrating 'the benefits of artistic production *as research*' (original italics) and its relationship to 'embodied cultural capital' (a term coined by Anne De Bruin, a New Zealand economist). Barrett describes this term as

"... creative abilities, talents, styles, values and dispositions of individuals and communities that emerge from, and relate to artistic production and its employment. This intangible form of cultural capital encompasses the dynamics of reciprocity operating outside of economic exchange, and includes such things as community confidence, pride, cohesion and sense of identity." (p 12)

She suggests that this 'reconceptualisation' of cultural capital might give us new ways of understanding and valuing creative arts research beyond its embodiment in artworks and institutions. Although she (and others, for example, Stewart, 2004) root the activity firmly in a studio context as an *initial* site for research, this work represents a major step in recognising the value of creative research in a broader cultural, economic and ethical context. A further development of this is the concept of 'material thinking' (Carter, 2005).

⁸ Literally making manifest, rather than an agenda driven rhetoric

⁹ The UK's AHRC, considering research as a process, invite through their funding schemes arts proposals that have clear questions, an identified context, realistic methods, and that suggest likely outcomes made manifest through various media.

“ ... creative knowledge cannot be abstracted from the loom that produced it. Inseparable from its process, it resembles the art of sending the woof-thread through the warp. A pattern made of holes, its clarity is like air through a basket. Opportunistic, it opens roads.” (p1)

Paul Carter considers the discourse of creative research as material thinking, and argues that the artist's ability to imagine things differently (best achieved in his view through collaboration) produces 'local inventions' that enable active participation in shaping our world. The concept of 'material thinking' has been taken up by de Freitas (2005) as a means of providing a new methodological perspective for collaborative creative practice research that acknowledges knowing through making.

A different way of knowing?

So to return to my original question - does inquiry through creative practice open up different ways of knowing, different ways of making meaning?

Creative understandings

We might say that the purpose of art is to make meaning¹⁰ - making the invisible visible, transforming the everyday into the extraordinary, making poetic reflections of the world, actively constructing understanding through imaginative and surprising means. Using artistic approaches and methods gives us experiential ways of knowing - we think with materials, we make sense through making, we see through the 'thinking eye' as Paul Klee suggests. We learn through the senses - coming to know a stone more by touching it than reading about it; we come to know music by playing it and hearing it; we come to know a landscape by travelling in it, touching the ground, smelling the air. These are sensuous knowledges.¹¹ We develop deep understandings through what Schön (1983) called 'knowing in action' - "the characteristic mode of ordinary practical knowledge". This kind of everyday knowing comes from being open to deep experiences of the world. This knowing might remain as embodied knowledge within artworks. It might remain as 'tacit knowledge' (Polanyi, 1958) in the artist's head and be useless to others - unless communicated in some way - perhaps through the process of a practice-led research project?

Critical understandings

I have said that one of the functions of research is to interrogate practice through a purposeful inquiry that asks questions about that practice and its context and value helping to develop a *critical* practice, one that is culturally and socially relevant, and 'out' of the garret. In asking questions about *what* we do as artists, *why* we do it, *how* we do it and its significance and value - *so what?* - we develop the skills of criticality.

In asking questions about *what?* we become attentive - listening carefully and closely, noticing, sensing (artists are usually good 'barometers' of cultural weather). We become curious - raising issues, challenging assumptions, taking nothing for granted.

¹⁰ "... to act, as an artist, is to make meaning ..." Matarasso, F. 2005 *Between a Rock and a Hard Place* (p3), All Ways Learning conference, University of Sussex. (PDF available from www.onthederesearch.org)

¹¹ A conferences series called *Sensuous Knowledge* is hosted by the National Academy of the Arts, Bergen, Norway. These important annual conferences develop discourse on artistic research. Visit http://www.khib.no/khib/ku_fou/konferanser_seminarer/sensuous_knowledge/sensuous_knowledge_2_aesthetic_practice_and_aesthetic_insight

In asking *why?* we become aware of the work and views of others - building relationships to become part of a web of thinking and practice - in short being connected, responsive, and engaged.

In asking *how?* we are sensitized to acting ethically - respecting and valuing others and their contribution to making meaning. We become transformative - actively shaping, generating, changing things through the use of creative processes and methods.

And in asking the provocative *so what?* we take a position - develop a considered, informed belief based on research experience and evidence. We become insightful - developing deep understandings, not superficial opinions. We become able to assess the real value and extent of our own contributions and those of others.

Creative and critical knowing

As practitioner-researchers we probably need to develop various strategies for responding creatively and making sense of this fast changing and complex world. Herbert Read's belief in art's capacity to synthesise the imaginative and the intellectual is echoed in Sullivan's statement of the complementarity of creative action and critical reflection - "*create and critique* is at the heart of visual knowing." (2005, p 117, original italics).

We might say that *knowing* - as an active process - is more valuable than *knowledge* as a static body or commodity. Knowledge is transient and has a sell by date - today's fact is tomorrow's absurdity - like ... the earth is flat. Although knowing 'what' - is important, knowing 'how' - how to research, how to learn, how to make meaning - is crucial. Bringing together the creative and the critical in a reflexive relationship is the function of practice-led research.

To end with a favourite quote from the scientist and philosopher Paul Feyerabend that highlights the need for researchers to take creative risks in generating knowledge -

"The only principle that does not inhibit progress is: anything goes ... Without chaos, no knowledge. Without a frequent dismissal of reason, no progress ... For what appears as 'sloppiness', 'chaos', or 'opportunism' ... has a most important function in the development of those very theories which today we regard as essential parts of our knowledge ... These 'deviations', these 'errors', are preconditions of progress."

Feyerabend, P. (1988) *Against Method*. London: Verso (revised edition) p164

Postscript - On being, doing and knowing

In reading over my notes taken during the symposium I am grateful to participants for their stimulating comments, and in some instances radical proposals, on being, doing and knowing.

Francisco Xavier Moysem talked of 'ontological ambiguity' arguing that both art and knowledge are contingent, and Jaime Cuando spoke of 'local realities' and reality as 'barely understandable' anyway.

The excellent symposium logo - a graphite rock alongside its chemical visualisation - stimulated Pentti Routio to discuss the interwoven relationship between the material world of the senses (empiria) and the world of abstract theory to give us complementary ways of understanding.

Abraham Cruzvillegas, in discussing the work of the Fluxus artist Robert Filliou, said “to talk about delirium you have to have delirious tools”. In the Fluxus spirit of flow and change Abraham argued for a ‘free model of creation’ - not fixed - but a methodological deliriousness tempered with criticality, against which the artistic curriculum needs to be constantly recreated.

Gary Hill’s video ‘Happenstance’ was a startling visual articulation of how a thought comes into being - the emergence of thinking through the making of an artwork.

And finally, Anna Maria Guasch argued for ‘epistemological flexibility’ in mapping the new theoretical space of visual studies, boldly declaring that “the scientific cultural hegemony of the Western world is finished”.

A turning point indeed.

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