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Editorial:

Research Practice in Art and Design: Experiential Knowledge and Organised Inquiry

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1. Organised Inquiry in Art and Design

Dash and Ponce observe in their inaugural editorial to the *Journal of Research Practice* (JRP) that while the forms of reasoning associated with research are important, new fields of research may require new approaches to organised inquiry in order to be open to new findings or insights that may elude the existing norms of research (Dash & Ponce, 2005). Experiential knowledge is not often associated with research and organised inquiry, and even less often with the rigour of debating and honing research methods and methodology. However, many researchers in art and design and related fields perceive experiential knowledge or tacit knowledge as an integral part of their practice. It seems therefore that research, in order to be successful in these areas, has to recognise this and consider relevant approaches to organised inquiry accordingly. We are therefore pleased to present this special issue on “Research Practice in Art and Design: Experiential Knowledge and Organised Inquiry,” which addresses some of the issues that arise from recognising experiential knowledge as an integral part of research practice.

In this editorial, we introduce some of the recent debates on the practice of research in art and design, and the role of experiential knowledge within this practice. This takes the

cross-disciplinary remit of JRP into the field of art and design (defined in the broadest sense), in order to explore and enhance research practice in the creative disciplines. We hope that the articles included in this special issue will also have relevance in other fields concerned with professional practice and reflection on practice, such as education, management, and nursing.

Art and design constitute a relatively new domain for academic research. The aim of JRP-“to highlight the dynamics of research practice, as it unfolds in the life of a researcher, in the growth . . . of a field, and in relation to a changing social and institutional environment” ([JRP Focus and Scope](#))--is therefore particularly relevant to art and design. This aim is related to Donald Schön’s conception of reflection on practice put forward in *The Reflective Practitioner* (1983/1991), which has informed the idea of organised inquiry in art and design. Schön provides professional practitioners with a method for observing and reflecting on their practice, with a view to improving that practice.

Schön’s idea has been important in the discussions on the differences between the practice of art and design and the practice of art and design research. These discussions have focused on three key characteristics of art and design research: (a) its multidisciplinary nature, (b) use of creativity within research, and (c) use of experiential knowledge and tacit knowledge, the latter often being associated with skill and craftsmanship in the use of materials (Niedderer, 2009, p. 4).

Multidisciplinarity arises from both the broad definition of art and design (encompassing both art and design) and their overlap with many other fields with regard to method, such as engineering, social science, behavioural science, and so on. Art and design research regularly draws on a variety of methods from these fields, but also needs to negotiate these with methodological positions of its own.

The need for creativity arises from the aim of art and design to envision something that is not yet in existence. Linked to this is the need to access the personal, professional, and often tacit experience and knowledge of artists and designers.

The aim of this special issue is to draw attention to experiential knowing and knowledge in research practice in the creative disciplines. In particular, the articles in this issue explore the different ways in which experiential and tacit knowing can be understood, integrated, and communicated within a framework of research.

The discussions on experiential knowledge are diverse, using different terminology, such as experiential knowing and knowledge, tacit knowledge, non-propositional knowledge, personal knowledge, professional knowledge, and so forth. We address the issue of terminology, among others, in Section 2 below to put some of the discussions in context.

2. Experiential Knowledge and Organised Inquiry

There has been a debate for some time about the nature of research in design, art, and related fields. Over the last 2 decades, this debate has gained urgency in many countries including Australia, the USA, the UK, and many European countries.

In the UK, it was the integration of art and design departments into the UK university system in the early 1990s (Durling, Friedman, & Gutherson, 2002, p. 8) that made the opportunity for academic research in art and design more available, and gave new impetus to debates about the nature and protocols of art and design research. The availability of financial support for research--with all the benefits and problems--has enabled art and design research to flourish. Art and design had to meet the challenge of defining its terms in relation to established definitions and models for research in other fields, though there remains a great deal to be done.

The growth of PhDs in art and design (Mottram, 2009) brought some urgency to the need to be more explicit about research methods, frameworks, and methodologies to characterise research practice in creative disciplines. While institutional guidelines could accommodate some creative and professional practice within research under certain conditions, the debate about the nature, aims, validity, evaluation, and necessity of such research has continued.

This transformation of the context of much art and design education, caused by the integration of art and design departments into the university system,

brought two disparate sets of practices and beliefs into close proximity: on the one hand practices and cultures of research, characterised by debate about questions, methods and what counts as knowledge, and by requirements of communicable as well as generalisable and transferable results. On the other hand practices of creating, designing, inventing, and making, in which the experiences of the body are traditionally conceived as playing an important role. (Niedderer & Reilly 2007, p. 81)

The distinction between research practices aiming at generating new knowledge and understanding on the one hand, and a range of art and design practices aiming at the generation of new artefacts (in the broadest sense) on the other, has led to the question about the extent and ways in which either approach might embody knowledge and understanding.

One of the earliest attempts at grappling with this issue in art and design has been by Bruce Archer (1979) who argued that “the design mode of expression, which I have called modelling, is equivalent to but distinct from verbal language or scientific notation.” In a later article, Archer (1995, p. 10) explores this issue further, scrutinising the long held belief that artists, designers, and other practitioners in the arts do research in preparation for and as part of their practice. Reviewing systematically the different modes of research, Archer (1995, p. 6) defines research in general terms as a systematic and

organised enquiry pertaining to an issue or question, and which is goal-oriented, knowledge-directed, and communicable. He contends further that all kinds of research, whether from the sciences, humanities, or the arts have to adhere to this framework, no matter whether this pertains to *research into, for, or through* art and design, categories which have been used in parallel by Archer (1995, p. 11) and Frayling (1993).

While this idea of research seems widely accepted today, the debate concerning the issue of communication and the use of art and design practice as part of research has persisted. This persistence may have several root causes, two of which seem relevant to the current discussion: one is the political-philosophical view brought to the understanding of research and creative/professional practice, the other lies in the nature of this practice often being tacit while research requires explicit communication.

The political-philosophical position brought to the issue has come to prominence in the debate about the relationship between theory and practice. This debate is a legacy of the separation of theory and practice in art and design, which for example received impetus in the UK through the incorporation of historical and “complimentary” studies into art and design education in the wake of the Coldstream Report (Coldstream, 1961) in the 1960s. This development has associated theory with explicit knowledge delivered through the slide lecture and written essay, and art and design practice with manual work in the studio.

Subsequent alternative approaches and conceptions such as Schön’s *knowing-in-action* or *reflection-in-action* hold that “our knowing is ordinarily tacit, implicit in our patterns of action and in our feel for the stuff with which we are dealing. It seems right to say that our knowing is in our action” (Schön, 1983/1991, p. 49). Cognitive science tells us that we gradually build our model of the world, which we use in order to see and experience the world, when we imagine the world and when we act in the world. The idea that somehow our actions and practices might occur independent of our model of the world and understanding of the world is not supported. Chris Frith argues:

[T]he distinction between the mental and the physical is false. It is an illusion created by the brain. Everything we know, whether it is about the physical or the mental world, comes to us through our brains. . . . our brain creates the illusion that we have direct contact with objects in the physical world. And at the same time our brain creates the illusion that our own mental world is isolated and private. (Frith, 2007, p. 17)

If the distinction between the mental and physical is contrived, then the division between theory and practice is also contrived, as it echoes the mind/body divide. However, the debate about practice-based and practice-led research seems to persist even though the terms are not well defined (Niedderer & Roworth-Stokes, 2007) and seem unhelpful because of their implicit distinction from “proper” research.

What is notable in the discussions on practice-based research and related notions is the question of why practitioners feel the need to utilise practice as part of their research.

While there may be a number of reasons for this, the problem that is of most interest here is the tendency of art and design practice to rely on the tacit understanding of materials and processes, aesthetics and expression, emotional and cultural issues. This tacit knowledge is acquired through extensive experience of working with materials and processes, enabling artists and designers to acquire knowledge and skills that are based on experience, that are largely tacit, and that are the basis of expertise and connoisseurship (Berliner 1994, p. 110; Dreyfus & Dreyfus, 1988; Niedderer, 2007b). According to Polanyi, skill or knowledge of this kind can never be fully communicated, because “we can know more than we can tell” (Polanyi, 1967, p. 4). Being largely tacit, practice knowledge (experiential knowledge) is often perceived to be at odds with the traditional understanding of research and its contribution, which requires justification and evidence to be seen as rigorous.

Most research regulations, especially those for PhDs, require a contribution to knowledge, and they also prescribe a set of requirements as to how this contribution is to be communicated (e.g., Arts and Humanities Research Council, 2010, p. 64; Higher Education Funding Council for England et al., 2005, p. 34 [PDF version]; and many university research definitions worldwide, such as Curtin University of Technology, 2007, pp. 2-3; Indiana University Southeast, 2005, p. 19, p. 50). The position of knowledge that is implicit in research through these regulations and requirements may be thought to prioritise what is known as *propositional knowledge* (Niedderer, 2007a). Propositional knowledge has been defined as “justified true belief” (Grayling, 2003, p. 37), and the need for justification conventionally requires knowledge to be explicit and generalisable.

Experiential or tacit knowledge (also, non-propositional knowledge) in contrast is regarded as knowledge derived from experience, although there are variations (e.g., Grayling, 2003, p. 38ff; Williams, 2001, p. 98). Experiential knowledge is perceived to be important for art and design, because it can provide data, and verify theoretical conjectures or observations. While experiential knowledge can be described, some part of it evades communication and remains tacit. It is therefore also termed tacit knowledge. Because of its (partly) tacit nature, experiential knowledge does not easily yield to practices of justification and evidence conventionally used in research (Niedderer, 2007b, p. 7; Williams, 2001, p. 98).

More recent epistemological debates reject this mind/body dualism (Damasio, 1994; Edelman, 2006; Johnson, 2007; Lakoff & Johnson, 1999) and define knowing and knowledge from a naturalised epistemological position, as something gained through the interrelation of the body, with its brain and nervous system, and its environment. As far back as 1979, Bruce Archer conceived “Design epistemology: The study of the nature and validity of ways of knowing, believing and feeling in Design” as a key issue in the field of design (Archer, 1979).

The position of naturalised knowledge has enabled the integration of experiential and tacit knowledge with more established notions of knowledge. This has led to extended debates about research methods in design, which in many ways echo questions addressed

in the design methods movement of the 1960s and 1970s, such as: “What are design methods?” (e.g., Jones, n.d.). Now framed in terms of design research, the questions address the conditions under which design methods might be used as research methods as well as the nature of discipline-specific methodologies.

Within these debates, there is an increasing interest in the development of methods and approaches that are designed for art and design research and that are developed to utilise and integrate experiential knowledge. Publications by Cross (1984, 2001, 2003) as well as Rust (2004) have been seminal in the field, and a number of PhD studies have set precedents for research in art and design by using the creative potential of drawing or designing to generate insights and/or new solutions (Dunne, 1999; Niedderer, 2007c; Pedgley, 2007; Whiteley, 2000; Wood, 2004).

The developing understanding in this debate is that the inclusion of practice in the research process or as a research outcome helps to integrate and communicate those kinds or parts of knowledge that cannot easily be made explicit, such as the tacit part of experiential knowledge, commonly known as tacit knowledge. It also may be seen to help negotiate and integrate the different kinds or parts of knowledge to move towards a naturalised epistemological position in research as is evident in the articles presented in this special issue.

3. Contributions

The articles presented in this issue extend the debate about the role and use of experiential and tacit knowledge within current understandings of research. The articles are organised under two sections. The first section is titled “Experiential Knowledge in Organised Inquiry” and addresses issues of integrating and communicating experiential and tacit knowledge within the context of organised inquiry. The second section, “Experiential Knowledge in Doctoral Research” examines research practice options within doctoral research in art and design.

The articles for this issue have been selected and developed from contributions to two conferences, which were organised by the Experiential Knowledge Special Interest Group (EKSIG) of the Design Research Society (DRS):

(a) “Experiential Knowledge, Method and Methodology,” international conference of the DRS special interest group on experiential knowledge (EKSIG 2009), London Metropolitan University, London, June 19, 2009.

(b) “Experiential Knowledge and Rigour in Research” (special session), third international conference of the International Association of Societies of Design Research (IASDR 2009), Seoul, Korea, October 18-22, 2009.

EKSIG is concerned with the understanding and management of knowledge in research and professional practice in design and related fields in order to clarify fundamental

principles and practices of research, both with regard to research regulations and requirements, and research methodology.

Both events were guided by the remit of EKSIG and had the aim to share different views and developments on methods and methodologies concerning the inclusion and communication of experiential knowledge in art and design research. Contributions from both events were selected through the peer review process of JRP.

The selected articles demonstrate a consolidation in the understanding of methodologies that use creative practice as part of research. They combine it with a variety of approaches, which indicates an increasing awareness of, and confidence in, the use of methods for the integration and communication of experiential and tacit knowledge in research. These are important developments for the field because they demonstrate that after nearly 2 decades of research in the creative disciplines, subject-specific approaches and methods have started to gain recognition, signalling the consolidation of a distinctive research practice in these disciplines.

The section on “Experiential Knowledge in Organised Inquiry” includes four articles. The article by **John Onians** discusses the role of experiential knowledge in relation to what he calls the “ultimate design studio,” that is, the brain. He proposes that personal experiential knowledge plays a particular role in artistic/design developments because of the neuropsychological processes related to it, for example through processes of empathy and imitation. **Peter Storkerson**’s article offers Brunswik’s lens model as a way to operationalise a theoretical framework to study experiential knowledge and knowing systematically. The article provides a theoretical background and discussion of knowledge and of Brunswik’s lens model, followed by an example of the potential application of the model. **Tiiu Poldma** investigates how tacit knowledge informs design thinking and decision making in the context of interior design. She links this to the question how meaning is made in the design process in relation to knowledge construction in traditional research paradigms, and how these can be negotiated. The article by **Seymour Roworth-Stokes** advances this theme by exploring how capturing and retaining knowledge through the design process is dependent on organisational contexts, both with regard to design practice and policy.

The next section on “Experiential Knowledge in Doctoral Research” opens with two articles, which examine methodological developments and methods used in design research, and especially PhD research. **Joyce S. R. Yee** identifies and analyses “the methodological innovation that is occurring in the field, in order to inform future provision of research training.” **Mark Evans** presents examples of how “researcher practice” can be embedded within doctoral projects. The final two articles of this section are concerned with the role of creative practice and visual approaches for the communication of experiential knowledge. **Kaye Shumack** describes ways in which the designer, positioned as a key agent within the design process, may conduct productive and creative “internal conversations” through journal writing. **Lynn Butler-Kisber** and **Tiiu Poldma** investigate “how collage making and concept mapping are useful visual approaches that can inform qualitative research.”

Together, the articles provide a rich overview over the role and significance of experiential knowledge within the field of art and design as well as for research in general. It is our hope that this issue will demonstrate that experiential knowledge, if acknowledged, can be a mediator between different approaches and schools of research because it provides a common basis. We further hope that this issue will help researchers from art and design as well as other disciplines to recognise experiential knowledge, its importance and contribution, and to integrate it within their organised inquiry to facilitate a holistic approach.

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Niedderer, K., Reilly, L., Roworth-Stokes, S., & Smith, C. (Eds.). (2009). *EKSIG 2009: Experiential knowledge, method, and methodology* [Conference proceedings]. London: London Metropolitan University. Retrieved January 15, 2011, from http://web.me.com/niedderer/EKSIG/conference_proceedings.html

Niedderer, K. (2009, October). *Understanding methods: Mapping the flow of methods, knowledge and rigour in design research methodology*. Paper presented at the third international conference of the International Association of Societies of Design Research (IASDR 2009), Seoul, Korea. Retrieved January 15, 2011, from <http://www.iasdr2009.org/ap/navigation/byauthorname.html>

Niedderer, K., & Townsend, K. (2010, October). Craft research: Joining emotion and knowledge. In K. Sato, P. Desmet, P. Hekkert, G. Ludden, & A. Mathew (Eds.), *Design and emotion conference 2010: Blatantly blues (Proceedings)*. Chicago: IIT Institute of Design. Retrieved January 15, 2011, from <http://id.iit.edu/~juans/DesignAndEmotion/contents/de2010papers/213.pdf>

References

- Arts and Humanities Research Council. (2010, October). *Research funding guide* (Version 1.3). Retrieved January 15, 2011, from <http://www.ahrc.ac.uk/FundingOpportunities/Documents/Research%20Funding%20Guide.pdf>
- Archer, B. (1979). *The nature and role of design research*. Unpublished notes.
- Archer, B. (1995). The nature of research. *Co-design*, 2, 6-13. Transcribed version by Chris Rust retrieved January 15, 2011, from <http://www.metu.edu.tr/~baykan/arch586/Archer95.pdf>
- Berliner, D. (1994). Teacher expertise. In B. Moon & A. S. Mayes (Eds.), *Teaching and learning in the secondary school* (pp. 107-113). Abingdon, UK: Routledge.
- Coldstream, W. (1961). *Coldstream report* (First report of the National Council for Diplomas in Art and Design, UK). London: National Council for Diplomas in Art and Design.
- Cross, N. (Ed.). (1984). *Developments in design methodology*. Chichester, UK: John Wiley.
- Cross, N. (2001). Designerly ways of knowing: Design discipline versus design science. *Design Issues*, 17(3), 49-55.
- Cross, N. (2003). *Designerly ways of knowing*. Basel, Switzerland: Birkhäuser.
- Curtin University of Technology. (2007). *Principles for doctoral coursework programs*. Perth, Australia: Author. Retrieved January 15, 2011, from <http://research.curtin.edu.au/local/docs/graduate/GS-CWDoctorates.pdf>
- Dash, D. P., & Ponce, H. R. (2005). Journey of research practice [Editorial]. *Journal of Research Practice*, 1(1), Article E1. Retrieved January 15, 2011, from <http://jrp.icaap.org/index.php/jrp/article/view/10/21>
- Damasio, A. R. (1994). *Descartes' error: Emotion, reason and the human brain*. New York: Grosset/Putnam.
- Dreyfus, H. L., & Dreyfus, S. (1988). *Mind over machine: The power of human intuition and expertise in the era of the computer*. New York: Free Press.
- Dunne, A. (1999). *Hertzian tales: Electronic products, aesthetic experience and critical design*. London: Royal College of Art.

- Durling, D., Friedman, K., & Gutherson, P. (2002). Editorial: Debating the practice-based PhD. *International Journal of Design Sciences and Technology*, 10(2), 7-18.
- Edelman, G. M. (2006). *Second nature: Brain science and human knowledge*. New Haven, CT and London: Yale University Press.
- Frayling, C. (1993). Research in art and design. *Royal College of Art Research Papers*, 1(1). London: Royal College of Art.
- Frith, C. (2007) *Making up the mind: How the brain creates our mental world*. Malden, MA: Blackwell.
- Grayling, A. C. (2003). Epistemology. In N. Bunnin & E. P. Tsui-James (Eds.), *The Blackwell companion to philosophy* (2nd ed., pp. 37-60). Malden, MA: Blackwell.
- Higher Education Funding Council for England et al. (2005, June). *RAE 2008 Research assessment exercise: Guidance on submissions* [Ref RAE 03/2005]. Retrieved January 10, 2011, from <http://www.rae.ac.uk/pubs/2005/03/>
- Indiana University Southeast. (2005). *Research policy manual* (5th ed.). New Albany, IN: Author. Retrieved January 15, 2011, from <http://www.ius.edu/acadaffairs/pdf/ResearchPolicyManual.pdf>
- Johnson, M. (2007). *The meaning of the body: Aesthetics of human understanding*. Chicago and London: University of Chicago Press.
- Jones, J. C. (n.d.). A theory of designing. Retrieved January 15, 2011, from http://www.softopia.demon.co.uk/2.2/theory_of_designing.html
- Lakoff, G., & Johnson, M. (1999). *Philosophy in the flesh: The embodied mind and its challenge to western thought*. New York: Basic Books.
- Mottram, J. (2009). Researching research in art and design. In J. Elkins (Ed.), *Artists with PhDs: On the new doctoral degree in studio art* (pp. 3-30). Washington, DC: New Academia.
- Niedderer, K. (2009, October). *Understanding methods: Mapping the flow of methods, knowledge and rigour in design research methodology*. Paper presented at the third international conference of the International Association of Societies of Design Research (IASDR 2009), Seoul, Korea. Retrieved January 15, 2011, from <http://www.iasdr2009.org/ap/navigation/byauthorname.html>
- Niedderer, K. (2007a, April). *A discourse on the meaning of knowledge in art and design research*. Paper presented at the seventh international conference of the European Academy of Design (EAD 07), Izmir, Turkey.

- Niedderer, K. (2007b). Mapping the meaning of knowledge in design research. *Design Research Quarterly*, 2(2), 1 & 5-13. Retrieved January 15, 2011, from <https://uhra.herts.ac.uk/dspace/bitstream/2299/4406/1/903922.pdf>
- Niedderer, K. (2007c). Designing mindful interaction: The category of the performative object. *Design Issues*, 23(1), 3-17. Retrieved January 15, 2011, from <http://www.mitpressjournals.org/doi/pdfplus/10.1162/desi.2007.23.1.3>
- Niedderer, K., & Reilly, L. (2007). New knowledge in the creative disciplines: Proceedings of the first experiential knowledge conference 2007 [Editorial]. *Journal of Visual Arts Practice*, 6(2), 81-88.
- Niedderer, K., & Roworth-Stokes, S. (2007). *The role and use of creative practice in research and its contribution to knowledge*. Paper presented at the second international conference of the International Association of Societies of Design Research (IASDR 2007), Hong Kong. Retrieved January 15, 2011, from http://www.sd.polyu.edu.hk/iasdr/proceeding/html/sch_day3.htm
- Pedgley, O. (2007). Capturing and analysing own design activity. *Design Studies*, 28(5), 463-483.
- Polanyi, M. (1967). *Personal knowledge*. London: Routledge & Kegan Paul.
- Rust, C. (2004) Design enquiry: Tacit knowledge and invention in science. *Design Issues*, 20(4), 76-85.
- Schön, D. (1991). *The reflective practitioner: How professionals think in action*. Aldershot, UK: Arena/Ashgate. (First published by Basic Books, New York, in 1983.)
- Whiteley, G. (2000). *An articulated skeletal analogy of the human upper-limb*. Unpublished doctoral dissertation, Sheffield Hallam University, UK.
- Williams, M. (2001). *Problems of knowledge: A critical introduction to epistemology*. Oxford, UK: Oxford University Press.
- Wood, N. (2004, September). *Unknown knowns: Knowledge elicitation for multimedia in craft learning*. Paper presented at the Challenging Craft conference, Gray's School of Art, The Robert Gordon University, Aberdeen, UK. Retrieved January 15, 2011, from <http://www2.rgu.ac.uk/challengingcraft/ChallengingCraft/papers/nicolawood/nwoodabstract.htm>