

## ***Making Sense: a materialist pedagogy***

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with

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### **Introduction**

Practice led research in Art & Design has been pioneered at Gray's School of Art, part of the Robert Gordon University Aberdeen, over the past two decades. The three authors have experience in research and teaching concerned with making in both sculpture and craft: Gordon Burnett is currently Reader in Craft, Dr Allan Watson completed his PhD in 1992 and is currently Programme Leader for Sculpture & Photographic and Electronic Media. Prof. Carole Gray is retired Research Co-ordinator.

This case study discusses an undergraduate project that was tested (in December 2008) over a two-week period with thirteen stage three (pre-final) Honours Degree students studying Three Dimensional Design. This project exposed students to doctoral and post doctoral research and enabled them to engage with the challenging epistemological question – 'what can be known by making that could not be known by any other means?'

The aim of the project was to extend creative and critical action and reflection, through a methodology that is dialogic, relational, entailing collaboration. Contributing towards instilling in students 'research mindedness': the ability to continually question and encourage reflective curiosity about the critical development of their creative practice

### **Background**

The student project has grown out of the authors' ongoing research<sup>1</sup> programme *Making Sense* ([www.makingsensereseearch.net](http://www.makingsensereseearch.net)) into ways of knowing generated through practice and reflection in craft. Two previously published papers provide the background to this research: the first *Making Sense: 'material thinking' and 'materializing pedagogies'* (<http://interactivediscourse.com/aboutus.htm>) lays out the critical and theoretical context for this research and a rationale for knowing through making; the second paper describes and analyses a collaborative project between two of the authors, that actively explores what can be known through practice and reflection that could not be known by any other means (*Making Sense: an exploration of ways of knowing generated through practice and reflection in craft* - in press - 'Crafticulation' conference proceedings, 2009).

The breaking of creative habits and challenging familiar working patterns and methods forms a vital premise for the research programme. The issue was how to create a repeatable ever-changing scenario that challenged the maker's knowledge yet placed the emphasis on gaining new understanding through making. Fortunately a 'tool' had been devised to address this issue of 'habit - breaking' by doctoral research back in the early

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<sup>1</sup> Definition of research - a process of systematic disciplined inquiry entailing the identification of questions related to a context, and involving the use of research methods (ref. Arts and Humanities Research Council – [www.ahrc.ac.uk](http://www.ahrc.ac.uk))

90's but had remained dormant until the summer of 2008. Originally devised for sculptors, its transferability was recognised and used successfully within the *Making Sense* programme. The 'tool' named ARP – Art as Random Process<sup>2</sup> (Watson, 1992), is a digital database that generates diverse instructions and 'ingredients' for action (words, numbers), from eight initial categories by either 'choice' and/or 'chance' options.

## Context

Current discourse on experiential knowledge includes, for example, Carter's concept of 'material thinking' in which he says that 'local knowledge' is the 'distinctive yield' of creative research. 'Material thinking' has implications for pedagogy as in Bolt's concept of 'materializing pedagogies' (2006)<sup>3</sup>. Adamson's 'thinking through craft' (2007) proposes craft as an active process for working towards broader understandings. Such concepts together with a recent series of innovative conferences – 'Sensuous Knowledge'<sup>4</sup> open up possibilities for ways of knowing through *material* and *sensory* experience.

This recent discourse, together with established thinking from Dewey (art as experience) and Schön (reflective practice), has helped to frame and inform our research intentions and has shaped the methodological approach applied in the research.

## The Project

For the project thirteen students from crafts disciplines of ceramics, glass and jewellery used the 'chance' option within ARP, working with only four specified categories (place, quantity, quality, method) as using all eight for this first project seemed unmanageable in the planned two week time period. The focus on stage 3 students and the timing in the curriculum was selected because students are familiar with each other's creative directions, personal values and are technically competent.

The students were informed at the outset that the project was part of an ongoing research programme and were given a brief overview (including key references) of the theoretical background and discourse. Students were paired by staff who know their personalities; close friends were links with other's in the group, which helped develop interpersonal skills. They then individually used ARP to each generate a 'chance' set of 'ingredients' (words, numbers) to stimulate new work, and had seven days for research and reflection, followed by three days of making to respond creatively to their findings. After four days of evaluation and reflection on their making, they formally presented their conclusions in pairs to their peers and staff. The pedagogic process entailed experiential learning (learning through doing) within a constructivist framework (Bruner, 1996), in which social interaction is a key part of the learning experience, encouraging articulation and co-reflection.

Here is a flavour of ARP's output sets as used by the students; *Semi-detached, lots, hertz, relief printmaking; Whirlpool, murky, 36, both hands; Andromeda, natural colour, 1, massage; Front door, flexible, B4 250 x 353, jigs and guides.*

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<sup>2</sup> Devised as part of Allan Watson's doctoral research (1988-1992) *An Exploration of The Principle of Chance as a Stimulus to the Creative Activity known as Sculpture*

<sup>3</sup> Carter and Bolt's work is discussed in more depth in our journal paper – *Making Sense: 'material thinking' and 'materializing pedagogies'*, <http://interactivediscourse.com/>

<sup>4</sup> Initiated and hosted by the National Academy of the Arts, Bergen, Norway.  
[http://www.khib.no/khib/ku\\_fou/konferanser\\_seminarer/sensuous\\_knowledge/sensuous\\_knowledge\\_2\\_aesthetic\\_practice\\_and\\_aesthetic\\_insight](http://www.khib.no/khib/ku_fou/konferanser_seminarer/sensuous_knowledge/sensuous_knowledge_2_aesthetic_practice_and_aesthetic_insight)

Examples of reactions from students regarding their ingredients:-

*Common reaction on receipt of each set was disorientation – one student commenting it totally threw me; ARP sets seen as challenging and uncomfortable - one student commenting that she was completely out of her depth; for one student ARP was revelatory, uncovering a strong new source of inspiration from Scotland's past*

The project ultimately entailed nine methods: **briefing** and discussion, **time limited** project and **timing** in the curriculum, **pairing** students; pairs developed their own methods – brainstorming, mutual interrogation and cross-checking. **ARP** 'chance/choice' **database** – providing **unusual stimuli for new work** by chance not choice, challenging their preconceptions, taking them out of comfort zones, **Sketchbooks and development sheets** – containing/logging, exploration, questioning, visualizing thinking, envisioning, capturing thinking in action and reflecting on action, storing and sharing ideas. **Informal and structured conversations** – sharing each other's evolving ideas, mutual critical feedback – reflection in action; different forms reflection - both as individuals and in pairs. **Explorations of 'ingredients' and translation** – creative investigating of research through diverse thinking and sourcing unusual materials. **Making** – immersion in action, handling materials, testing processes and techniques, forming responses (to their received 'chance' given 'ingredients' for creativity). **Presentation** of outcomes (understandings) and outputs with their group – based on shared analysis of the new work to focus thinking and synthesize understandings.

We might call this method set a 'bricolage' described by Denzin and Lincoln<sup>5</sup>

"a pieced-together, close-knit set of practices that provide solutions to a problem in a concrete situation. ... a complex, dense, reflexive, collage-like creation that represents the researcher's images, understandings, and interpretations of the world..."

(1994, pp 2-3)

The understanding and application of this method set engages with two aims on the QAA website for graduate attributes: *'An ability to deploy techniques of analysis and enquiry, also an ability to apply a systematic and critical assessment of complex problems and issues'*.

## **Outcomes**

The three-day immersive making experience was undertaken in familiar workshop surroundings where a wide range of materials and equipment were available. However some students used limited and unexpected materials e.g. paper only, a fish bone, whilst others looked beyond, for luminescent powder, taking a plaster mould of frozen water. One student made a sound piece from recordings at the beach, whilst others gained new skills by experiencing new techniques e.g. woodturning and engraving. The majority of students applied urgency with some ambition and risk taking being evident. Comments included: *I used play and models with direct action during making; this project required decisive action and pushed ambition of my idea through making; I explored more materials than normal – it was a small project so I could try things.* These comments tell of the different aspects of value gained from making within an unusually tight timeframe.

Evidencing attributes of using initiative with flexible thinking whilst being responsive and

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<sup>5</sup> Denzin, N. & Lincoln, Y. (1994). A Handbook of Qualitative Research. Thousand Oaks, CA: Sage

alert to critical decision-making and risk taking.

### **Assessment**

Formal academic; Staff evaluated the degree to which students had critically applied themselves to investigating their ingredients. How inventive and inquisitive they were in exploring creative possibilities from their findings. Student capacity to challenge themselves technically, cope with any mishaps through effective time management. Finally how critically reflective and objective they were when presenting and talking about the project, their outcomes and what they thought was revealed through making.

Finally what impact the experience had on their understanding and creative abilities.

Student comments included: *the project confirmed jewellery as my direction but I hated my finished idea; my idea came together quickly at the end.* In summary, students were *resourceful* with materials and learned to *work under pressure, deal with the unexpected*, whilst being *self-critical*. From their outcomes they could *see future possibilities* and *valued the experience*. In one case the project *changed the perception* of her practice. The formal presentation necessitated summarizing the project experience through critical reflection and by externalizing understandings and discussing outcomes leads to sharing of knowledge. The overall experience echo's another desirable graduate attribute; *'having an awareness of the provisional nature of knowledge, how knowledge is created, advanced and renewed, and the excitement of changing knowledge'*.

### **Benefits**

We believe that the strengths of the student project are; based on doctoral research, developed through post doctoral and professional practice, enhancing creative and critical capacities, immersion in experience, developing ways of knowing through the senses and material manipulation, students shape their learning, transferable dialogic methodology, contributes to the research programme, mutual learning experience for both staff and students. Undertaking and sharing an experience increases knowledge and understanding through multiple perspectives. ARP's extraordinary 'briefs' were acknowledged by users as astonishing and perplexing, moving thinking out of familiar territory and habits into the unknown.

### **Challenges**

Firstly the importance of project timing as there are critical reception points in the learning cycle. Students suggested more equal time between research/preparation and making. Explorations of 'ingredients' and translation by two students lacked inquisitiveness or curiosity that lead to shallow understanding, highlighting relevance of dynamic pairing. Needs to be a clear understanding of the project by technicians in order to assist students effectively and not prematurely close off ideas or lines of inquiry. For the presentation more structuring is required to include common criteria for analysis by the student's of their experience. In terms of pedagogic development we intend to run a series of iterative student projects, with revised structure, at different learning levels and explore the potential of having mixed subject groups. We propose that teaching colleagues undertake this project as we ourselves did, so that they understand the student project from their own experience.

Through the articulation of this case study, by sharing the insights gained, it is hope that this exemplar will contribute to the understanding of research-teaching linkages enhancement.