Researching the Research Culture in Art & Design:

The Art and Design Index to Theses

T Fisher¹, J Mottram²
¹Sheffield Hallam University, Sheffield, United Kingdom, ²Nottingham Trent University, Nottingham, United Kingdom
t.fisher@shu.ac.uk

Introduction: Research culture

The phrase ‘Research culture’ indicates an intangible state of being that might exist in an academic department in a university. It could be likened to a Petri dish of sticky goo in which fertile memes combine with emerging questions and pressing issues. Or more concretely it could refer to interactions between interesting and interested people which involve talking about their academic enquiries, sharing references to other work in the field, reaching consensus on the questions that need to be asked to further understanding in their field and finding the resources to answer them. A third, and more negative, view of a research culture might reveal a corridor of closed doors, where no one knows much about what their colleagues are doing, and certainly never gets the time to read or see their work, but where there is intense competition to be known to be getting the grants, or being invited to give keynote presentations, or getting that publishing deal - in art and design, these achievements could translate to getting that gallery show, selling to that collection, or getting a contract with that manufacturer. These analogies imply that a research culture can centre on a place, exist in a social context, be reflected in sets of values, and result in various modes of operation.

This paper discusses what it is possible to say about the research culture in art and design in the UK by reviewing some of its outcomes – abstracts of completed UK PhD projects collected in a recently compiled database, the Art and Design Index to Theses. This resource helps us to see a variety of things. The quantities of completed PhDs in the various sub disciplines of art and design can be seen to increase over time, with some subjects advancing in a different pattern to others – this variation in activity can be related to institutional changes and particular discussions about the nature of the PhD in art and design. The principles in play in these discussions can be seen reflected in the abstracts of the PhDs in the database. It is the ways in which these principles are enacted in the practice of research that is of broader interest, since this indicates the
sort of research culture that is evolving and allows the academic community to monitor it and possibly to influence its further evolution. Our research culture is what we make it, and it is therefore our responsibility to determine the specifics of the cultural environment in which we can wriggle and grow. We have the responsibility for careful and sensible consideration of new opportunities and challenges.

There follows a description of how the database came to be put together which provides a useful context for considering questions that arise when considering the PhD in relation to subjects in Art and Design which have a strong studio orientation. An initial analysis of the database itself throws up observations which may contribute to ongoing arguments about different ways to move forward our collective understanding about advanced degrees in art and design subjects.

**The Art and Design Index to Theses**

The Art & Design Index to Theses (ADIT) is a database of information on research degrees awarded by UK universities in the subject fields of art and design. Its development was supported by funding from the Arts and Humanities Research Council intended to develop research training resources in Art and Design and came out of personal contacts between researchers at six universities in central England, led by colleagues from [****] University and [*****] University. The drive to create the database derived from a sense that our disciplines had no way of knowing clearly what research had been and is being done – beyond anecdote and individual knowledge. A database of completed PhDs would provide a benchmark against which to reflect upon the usefulness of future contributions to subject knowledge in the field. As well as providing a more mature self-awareness, such clarification would benefit the discipline pragmatically as it would suggest strategic topics for ring-fenced funding.

Another motivating concern was the difficulty some doctoral students have in locating their enquiry in its context, compounded by the disciplinary spread of much research in our field and the relative lack of discipline-specific resources. This is reinforced by a model in which the framing of a doctoral project in art and design is often based entirely upon the individual student's area of interest, in contrast to many other academic subjects, where a student's doctoral study might be related to, an enquiry articulated by their Supervisor. This situation derives from the cultural heritage for art and design practice which emphasises the individual 'voice' (Fisher 1995, 1997) and the influence of this on emerging research practice. This culture gives new researchers grounds for asserting the value of their enquiry on the basis of its value for them. Clearly, this value model does not sit comfortably alongside the model of verification and replicability behind the generic understanding of research in the university system and more widely. A discipline-specific resource bringing together completed PhDs in a searchable database could help new PhD researchers to see how the subject of their enquiry, its theoretical framework and methods relate to other work in the field.

As in other subjects, doctoral study has an important part to play in building the knowledge base and research agendas of art and design. For historical reasons, which are discussed briefly below, it can do this now in a way that was not previously possible. The ADIT makes it possible to observe patterns across time as well as to understand how PhDs are being carried out, which raises the question of whether these practices should
simply emerge from activity in the field, or whether ‘gatekeepers’ or ‘stakeholders’ should determine them by directing questions or avenues for enquiry. The analysis of the sorts of questions and approaches that have figured in doctoral work to date will provide evidence on which to do the latter, as well as to identify dominant or emerging themes, and to inspect claims for methodological innovation or precedence.

Raw data for ADIT existed in the Index to Theses (ITT n.d.), which archives records provided by universities. However this database does not categorise records in a way which reflects current practice in art and design. Other records were obtained from the Allison Research Index to Art and Design, which contained subject-specific material up to the mid-1990s. Additional material was drawn directly from university Registrars and Art and Design departments. A working version of the ADIT database, including PhDs awarded in the first few months of 2005, was completed by December 2005.

The subject spread of the database reflects a focus on disciplines where engagement in art or design practice can be a viable component of investigation. The database covers the fields of design, including architecture, and fine art, but excludes technical studies of materials, historical studies, museology, consumer studies or philosophical studies that do not focus on designs or contemporary creative practice. Criteria for inclusion of records inherited from the ITT focused on research where the title or abstract showed that the study came from inside the art and design field, rather than being an enquiry from outside looking inwards. The UK Joint Academic Classification System (JACS) was used to code the records, to enable future users to identify records by subject (HESA N.D. a). The categorisation of complex material in a project of this nature is a matter of interpretation, and an appropriate area of further work may be to test how to apply such coding schemes. For the purposes of the analysis reported here, the JACS codes are grouped into seven sets under the headings Fine Arts, Architecture, Design Subjects, Textiles/Fashion, Visual Communication, Crafts, and Film & Photo.

Analysis

The early theses – 1957 to 1975

The database shows a steady growth in numbers completing PhDs, from the first Design entry in the database, in 1966, to the current rate of completions of approximately 40 per year. The database allows us to track the growth of PhD activity and see the subjects covered and methods used. The very first record in the database comes from 1957 - Chew’s ‘Some recent British sculptors: a critical review’. Up to 1975 twenty-six of the thirty-eight PhDs were in architectural subjects. 1975 saw the first PhD awarded by the Council for National Academic Awards, to a candidate from the polytechnic sector. There were only another four PhDs during this first period (Stevens 1966, Pal 1966, Wilkinson 1975, Sleigh 1975).

Early maturity - 1976 to 1985

From 1976 to 1985, one hundred PhDs were awarded by UK universities (see table 1). Forty four of these were in architectural subjects, six in visual communications (three of these at the Royal College of Art), twenty two in Design subjects and twenty-one in Fine Arts subjects, eight of these Fine Arts PhDs originating in polytechnics with studio courses in Fine Art. An indication of the focus or approach of some of these Fine Art studies can be inferred from their titles. Seven of the records indicate a focus on childhood learning about art

<table>
<thead>
<tr>
<th>1976-1985</th>
<th>Architecture</th>
<th>Creative art &amp;des other</th>
<th>Design subjects</th>
<th>Fine art</th>
<th>Photo/film</th>
<th>Textiles/fashion</th>
<th>Vis com</th>
<th>year total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>1977</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>1978</td>
<td>6</td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>1979</td>
<td>9</td>
<td></td>
<td>3</td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>1980</td>
<td>2</td>
<td></td>
<td>3</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>1981</td>
<td>3</td>
<td></td>
<td>5</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>1982</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>13</td>
</tr>
<tr>
<td>1983</td>
<td>5</td>
<td>1</td>
<td>4</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>1984</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>1985</td>
<td>5</td>
<td></td>
<td>3</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>subject group total</td>
<td>44</td>
<td>3</td>
<td>22</td>
<td>21</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td>100</td>
</tr>
</tbody>
</table>

**Table 1**, PhDs by subject group, 1976 to 1985

The remaining nine of these Fine Art PhDs do appear to focus upon the processes of art-making from the perspective of the practitioner, rather than being historical, anthropological, educational or developmental studies, and these were generally undertaken in polytechnic departments.

The subject foci of the remaining doctoral projects in the period 1975 to 1985 were Design Subjects (22 projects including industrial and product design), Textiles (3 projects), Photography (1 project) and three in Other Creative Arts and Design. The doctoral projects that appear in the Design Studies classification include a number that seem to be focused on engineering design, (Kenworthy, 1975 Dowler 1975, Rahman 1980 Loh 1983) several have the design process as their subject, (Cakin 1976, Cooley 1981, Lawson 1981, Singh 1983, Little 1983, Wong 1985, Finkelstein, 1985), two cover design theory and the research process (Gelernter 1981, Wang 1982) and one was on design and healthcare (Moss 1977).

In each year during this period there were between four and eighteen PhDs awarded. Even in 1985, there were only ten doctoral awards made.

**Emerging models for research in art and design - 1986 to 1995**

By 1995 the assumptions about the nature of research in Art and Design that stimulated the ADIT project had begun to emerge. Colleagues were involved in the supervision of doctoral students, accepted responsibility for providing training for them, and recognised the importance of the context of the research for framing a doctorate. This understanding had come about in part as a result of the way the new university sector
responded to the opportunity to engage in research degree study during the ten years from 1986 to the 1990s. During this decade yearly completions were around twenty. This was against the background of a number of significant events that affected the art and design community in the UK and which have highlighted continuing uncertainty about what our disciplines could, or should, be doing with this fairly new opportunity to do research degrees.

Particular shifts in the relationship of art and design to the academic degree-awarding systems in the UK from the 1960s have been important. From 1964 the Council for National Academic Awards (CNAA) validated Bachelors degrees in Art and Design in British polytechnics, but up to the CNAA’s dissolution in 1993 most research degrees were awarded by universities, though the CNAA was keen to stimulate PhD activity. Among the one hundred PhDs awarded between 1976 and 1985, only twenty-three were awarded by CNAA. After 1992, with the incorporation of the polytechnics as independent ‘new’ universities, awareness of the opportunity to engage in doctoral study became more widespread in art and design.

Before 1992, the CNAA Research Committee for Art & Design encouraged research degree activity. A series of conferences had reported on some of the early work in the field and explored issues of infrastructure and scope (Bourgourd, Evans and Gronberg, 1988). In 1984, the CNAA made a statement emphasising research as an important part of staff development to infuse teaching with a sense of critical enquiry. They saw this as including: ‘academic research, applied research, consultancy, professional practice, scholarship, creative work, curriculum and pedagogic research, and the development of applied, interdisciplinary and collaborative activities that are responsive to industrial and community needs’ (Bourgourd et al 1988). The confusion in the English speaking world about the relationship between research and creative practice may derive from inaccurate reporting or obtuse interpretation of this clear articulation of activities that support subject health. The statement was about ‘research’, and ‘related activities’, which infuse teaching. A sensible interpretation would be to take those activities to which the authors appended the word ‘research’ to indicate that particular sort of academic enquiry, research, and those that did not include the word ‘research’ to indicate ‘related activities’, in other words, not research. That appears to be what the CNAA intended, given their subsequent statements.

Bourgourd et al include a 1989 statement from the CNAA Art & Design Committee, which clearly stated that they did not accept creative work as legitimate scholarly activity, but recognised rapid growth in the reporting of such activity. The Council did re-state their recognition of the range of activities they considered was needed to support healthy subjects and debated whether alternative awards were needed to recognise advanced creative work. The CNAA made a distinction between advanced creative work, which has long been held as an important component in the teaching of the creative arts, and the growing interest in research degrees. There was recognition implicit in the making of this distinction that the sector might be starting to confuse research with creative practice, although the conference itself evidences some sensitive consideration of how the sector might develop its approach to research. The papers stressed the need to look at what we could usefully investigate in the discipline, rather than leaving it up to people from other disciplines to tell us what was special and distinctive about our activities.
By 1992, the rapid growth of creative activity being reported under the research and related activities performance indicator of the CNAA (but not accepted by them as ‘legitimate scholarly activity’) was co-opted by the UK Research Assessment Exercise (RAE). Art and Design, as the ‘new kids on the research-block’ (Brown, Gough and Roddis 2004), were the saviours of the new universities. The volume of activity submitted by art and design created a climate in which the activities and outcomes that the art and design departments submitted as research generated income for their universities. Brown et al note that a lot of the activity reported at that 1992 RAE was applied work undertaken in commercial or industrial contexts, described mostly as ‘professional practice’. It was thus probably the sort of activity the by-now-disbanded CNAA would have described as ‘related activities’ and not as research.

This account of the UK at the end of the 1980s shows a sudden ‘about turn’ in the collective understanding of research. In the late 1980s, CNAA made a clear distinction between research and creative professional activity. Because of the RAE funding available if professional practice could be claimed as research after 1992, this distinction was significantly eroded. But in terms of working out what we should be doing with the development of advanced-level enquiry in the subject fields, it is uncertain whether this was helpful. This confusion gives an interesting backdrop to the growth in the numbers of students undertaking research degrees in art and design (see table 2). The total number of completing PhD students in Art and Design in the UK during the ten year period from 1986 to 1995 was 181, against 100 during the previous ten year period. Numbers are still small in many of the subject fields, with just one or two completions each year in photography, crafts, visual communications and textiles. The volume of Fine Art and Design completions remain similar over the period, together accounting for almost a third of the activity. Architectural subjects remain the most numerous as during preceding years.

<table>
<thead>
<tr>
<th>1986-1995</th>
<th>Architecture</th>
<th>Craft</th>
<th>Design subjects</th>
<th>Fine art</th>
<th>Photo/film</th>
<th>Textiles/fashion</th>
<th>Vis com</th>
<th>year total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986</td>
<td>12</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>1987</td>
<td>7</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>1988</td>
<td>6</td>
<td>3</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>1989</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>1990</td>
<td>9</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>1</td>
<td></td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>1991</td>
<td>8</td>
<td>5</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>1992</td>
<td>8</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td>1</td>
<td></td>
<td></td>
<td>23</td>
</tr>
<tr>
<td>1993</td>
<td>6</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>1994</td>
<td>9</td>
<td>2</td>
<td>5</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>26</td>
</tr>
<tr>
<td>1995</td>
<td>11</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>subject group total</td>
<td>81</td>
<td>8</td>
<td>33</td>
<td>40</td>
<td>3</td>
<td>11</td>
<td>5</td>
<td>181</td>
</tr>
</tbody>
</table>

Table 2, PhDs by subject group, 1986 to 1995
Defining research in art and design

Coincident with the demise of the CNAA in 1993, Christopher Frayling, applied Herbert Read's model of teaching for, through and into a discipline to research in art and design (Frayling 1993). He noted that research could be for practice - an artist or designer collecting source material or knowledge. Research through practice designates the interactive process of making, testing and amending a form, and research into practice refers to observations of practicing artists at work. When thinking about developing research degree programmes the emphasis placed in undergraduate programmes upon research for practice is problematic. "Searching, for information, is a part of many creative processes, but is often no more than the compilation of a 'research file' of material to stimulate studio work. This may be similar to the information gathering necessary to address a research question, but the mere collection of 'stuff' ignores the organisation, evaluation and interpretation of the material collected necessary in research.

Another complicating factor that emerged during this period was a desire to show creative work as a part of the research degree submission. This had been possible under CNAA regulations since the late 1970s, but after 1992 required some adroit argumentation with colleagues beyond the subject domain. Also, because the preceding period had generated cultural models that privileged the audience over author in terms of meaning-making, deeply held beliefs that the work 'speaks for itself' started to unravel. An element in these difficulties may be that in the art and design world we are too used to 'show and tell' as our main means of exchange in the professional context - but 'no scientist would ever say that contents of a test-tube changing colour "speaks for itself"' (Frayling 1998).

From the evidence of the forty records coded as ‘fine art’, ‘drawing’, ‘painting’ and ‘sculpture’ from the period 1986 to 1995, the abstracts indicate that the outcomes of creative practice were particularly important for two submissions (Douglas 1992, Bennett 1994) and probably so for five more (Pepper 1988, Akyuz 1995, Watson, A 1992 Leake 1993 Mathew 1994), whereas there is no such indication in the records classified as ‘design studies’. However this group does include subjects not represented before, such as design management (Hollins, 1990 Riedel, 1994 Frigerio, 1994 Ez,1995) and the consumption of design (Follows, 1994).

Many of the enquiries in this period continued to look at the work of others, and many fit Frayling's category of research into practice. Of these, eight attend to the design process, or the epistemology of design (Jeon 1987, Young 1989, Frey 1989, Newland 1990, McBride 1992, Choi 1992, Mathias 1993, Devereux 1995, Kaddache 1986, Logan 1987, Turner 1993). Of the projects in the fine art category, five fit the model of enquiries into the processes of making art or the media used, with three of these from the Royal College of Art (Benyon 1994, Dawe 1992, Mottram 1988, Pizzamelli 1994, Rogers 1986). The remaining twenty-eight PhDs in the fine art subject group during this period are a combination of more historical, anthropological or education-orientated studies. A significant proportion of these (twenty-one) continue to come from the long-established universities that generally did not have established studio practice programmes in their portfolio.

By the mid-1990s then, the dominant model for doctoral activity in art and design continued to be provided from outside the subject field, but there were a few experimental studies through practice, and a number of
studies into the processes of contemporary practice. Studies that fit Frayling’s notion of research ‘for’ practice, which he had considered the most problematic but probably the closest to our understanding of the normal day-to-day practices of professional artists and designers, were not in evidence.

1996 to 2005 - The growing research population

The next ten years show a significant increase in activity. The total number of theses recorded in this period is 406 and there appears to be a steady rate of successful completions, with over forty doctoral projects being awarded each year. In 1998 the Arts and Humanities Research Board (AHRB) was established which made national bursaries available for postgraduate study in art and design. However the number of bursaries is small – only fourteen were funded in art and design in the 2005 competition from ninety three applications. Given that AHRC funded students form only a proportion of the total it is clear that a population of researchers and research supervisors is growing into a community of research practitioners who may start to generate common understandings and shared agendas as a part of their research culture.

The size of this research and teaching community can be gauged from data available from the UK Higher Education Statistics Agency (HESA N.D. b) and the returns from the Research Assessment Exercise. A conservative estimate of the annual population of UK doctoral students in art and design is around 200, out of a national total in all subjects of 91,605. The RAE data suggests that there may be around 3000 academics actively engaged in research and possibly supervising research degrees, giving a ratio in art and design subject fields of staff to doctoral researchers of about 15:1, compared to a ration of 1:1.7 across the UK academic community as a whole. Significant growth in the research student population would be required to reach national norms, but the current fifty or so PhD completions each year research students will be our colleagues of the future.

Current figures suggest that 50% of successful doctoral candidates do progress to careers in the education sector, as researchers or lecturers in higher education, or in the primary and secondary sectors (UK Grad 2005). What may be an issue is subject spread – in many of the subject fields in art and design, the number of successfully completed doctorates each year is still in single figures (see table 3). It is only in design subjects (industrial and product design), fine art and architecture where the numbers of completions each year exceeds ten per annum in two or more of the years in the period from 1996 to 2005.

<table>
<thead>
<tr>
<th>Year</th>
<th>Architecture</th>
<th>Craft</th>
<th>Design subjects</th>
<th>Fine art</th>
<th>Photo/film</th>
<th>Other creative art &amp;des</th>
<th>Textiles/fashion</th>
<th>Vis com</th>
<th>Year total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>19</td>
<td>2</td>
<td>6</td>
<td>8</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>5</td>
<td>1</td>
<td>9</td>
<td>15</td>
<td>2</td>
<td>3</td>
<td>7</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>9</td>
<td>4</td>
<td>7</td>
<td>19</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>7</td>
<td>1</td>
<td>11</td>
<td>15</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>12</td>
<td>1</td>
<td>12</td>
<td>23</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>8</td>
<td>1</td>
<td>4</td>
<td>19</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>43</td>
<td></td>
</tr>
</tbody>
</table>
Table 3, PhDs by subject group, 1996 to 2005

<table>
<thead>
<tr>
<th>Year</th>
<th>Fine Art</th>
<th>3D</th>
<th>Textiles</th>
<th>Design Studies</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>13</td>
<td>3</td>
<td>9</td>
<td>19</td>
<td>38</td>
</tr>
<tr>
<td>2003</td>
<td>6</td>
<td>2</td>
<td>6</td>
<td>19</td>
<td>32</td>
</tr>
<tr>
<td>2004</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>9</td>
<td>19</td>
</tr>
<tr>
<td>2005</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>81</td>
<td>16</td>
<td>67</td>
<td>148</td>
<td>406</td>
</tr>
</tbody>
</table>

**The relationship between staff research and PhD research**

The high proportion of PhDs in fine art subjects in Table 3 relates to the volume of outputs submitted by their supervisors to RAE 2001. Nearly 40% of the total outputs came from fine art, although these subjects only make up about 20% of UK higher education. 80% of this research comprised exhibition-type outputs, whereas just four per cent were books, (several being books by other authors illustrating the work of the artist). A similarly small proportion of the total submission was journal articles - 5% - and about half that number was conference papers - 2%. In design, by contrast, the outputs much more evenly spread across the different types, with a ratio of 1.48:1 of text-based to practical outputs, compared to a ratio of 1:5.45 for the fine art subject academics. The imbalance of in types of activity classed as research in the RAE and the particular nature of the most common outputs might influence the growth of doctoral activity because it is likely to influence perceptions of the type of outcome expected from research activity. This is especially telling in comparison to other subject groupings such as Built Environment, or General Engineering, which rely almost entirely on journal publications - journals which are run largely by the academic community itself and constitute the bedrock of its research culture. This contrasts markedly with art and design where our ‘products’ may hit a commercial market and it may be qualities that are far removed from research rigour or research impact that determine whether they get to the front page of Vogue or Elle Decoration or set new records at auction. In short, our scholarly community has little or no influence over the gallery world or over the design market.

**Emerging characteristics of recent PhDs**

Table 3 shows that in the period from 1995 to 2005, the largest number of successful completions were in fine art, accounting for 36%, up from 22% between 1986 and 1995. So not only did the overall number more than double, fine art focused projects now also accounted for a larger proportion of the activity. Architectural projects were the next largest group, as in the preceding twenty years. There were sixty-seven awards for design subjects, including industrial and product design, and thirty-two in textiles and fashion. Of the completions coded as 'Design studies', the groupings evident up to 1995 grew in proportion to the total growth and for the first time PhDs were completed in which design practice played a part in the methodology (Gregg 2000, Saxon 2003, Sirinkraporn 2004). A significant number of PhDs attended to design from a theoretical perspective - attending to the cultural impact of design from within the discipline (Lin 1996, Dunne 1997, De Groot 2000, Davies 2001). The design process was the subject of a number of studies (Gordon 2003, Krarian1996, Bayliss 1997, Li 1997, Amidpour 1997, Czulik 1998, Turner 1999, Tseng 2000, Velios 2002, Kahangamage 2002, Stuart Smith 2002). The consequences of design for consumers was a sub-area that grew in this period,
producing studies that drew on psychology (Marsden 1997), and discourse theory (Taft 1998). Design management topics continued to be explored in the context of EU integration (Law 1997), internationalised design (Lee 2002), and supply chain management (Wilkinson 2000) and teamwork (Mazijoglou 2003). The majority of the fine art studies continued to adopt largely historical, anthropological or educational approaches - looking into the subject by looking at the practices of others. An emerging tendency is for these projects to engage theoretical and philosophical models, as in Park Chun (1999) or Crawford (2002). In other PhDs an anthropological focus is turned on subjects as diverse as the Irish, the Senegalese, Korean and Aboriginal women artists. Investigations of fine art process continue to provide a counterpoint to historical studies, bringing enquiry closer to the subject as practiced in the contemporary world. Thirty of the PhDs in this period investigate the processes of making or apprehending contemporary art practice, in some cases with strong influence of models of thinking from other subject areas, for instance Hand (1998).

Other times projects focusing on process are largely descriptive, highlighting questions that could be investigated by other researchers, for instance Hogarth (1998). Some theses have apparently been written to accompany studio work (Meynell 1999), but it not clear whether the contribution to knowledge exists in the art works or in the written thesis. Another eleven projects that focus on the processes of art practice appear to have undertaken this through art practice (Curtin 2000, Dale 2001, Fleming 2004, Francis 2000, Gledhill 2001 Hanrahan, S. 1996, Hegarty 2002, Horton 2003, Roles 1997, Saorsa 2005, Staff, 2002). There is some indication that the methods employed do occasionally extend to include experiments, or other analytical methods. The abstracts of these theses indicate a fairly strong emphasis on literary argumentation.

Eleven projects addressed practical questions about the use of specific media, which could be described as investigations into or through media, as distinct from the enquiries into process already mentioned (Adams 1998, Aksoy 1996, Allen 2001, Bishop 2002, Graham 1997, Hinchcliffe 1998, Pengelly 1996, Povall 2003, Shepley 2000, Tung 2003, Young 1997). One study (Pengelly 1996) makes a clear claim for being 'practice-led', but the meaningfulness of that particular label might be questioned, since the project adopted a multi-method approach. If this model were to be applied to many other disciplines, it might be true to say that any applied research could be described as practice-led. Despite this issue of nomenclature, the theses in this group include a number of straightforward studies that are generally characterised by their usefulness to day-to-day professional practice in the field.

It is clear from the abstracts of theses in ADIT that the work completed has shown great variety, is tending to become more various and is throwing up some very interesting models. The quality of the language used to describe the research is uneven, and in some abstracts slips away from academic precision towards the language of the catalogue essay. The need to ensure that all institutions forward abstracts as well as complete bibliographic details to the British Library is clear. One major postgraduate institution that has supervised more doctoral work than any other in the UK has provided abstracts for only one third of the eighty-seven projects awarded PhD. This omission obstructs analytical work such as this, particularly given the overall small number of examples that are currently open to investigation.
The volume of material generated by doctoral students over the past ten years has grown to the extent that it is a daunting task to survey. The coding of completed PhDs for the ADIT project is an important contribution to the field to enable easier access to subject specific subsets of that material. The establishment of a secure and accessible home for the database is underway, and the ADIT team are looking at the possibility of extending the scope of the project to cover the research degree activity of other countries.

Conclusions

The abstracts for the records discussed in this paper are of variable quality and cover a range of approaches. They range from one-liners, through straightforward and well-constructed summaries, to mini-essays of extreme richness and complexity. It is clear that the work undertaken was motivated by a range of very different objectives and that there is still progress to be made towards a clear understanding of the intentional transmission of visual knowledge. If our research culture is to continue to assert any central role for the art or design object in doctoral (or any other) research it might also be useful for us to consider the quality of our evidence, visual or otherwise, and the way it might be accessed in the future.

ADIT gathers material with which the academic community can address these issues to develop PhD activity and to address our collective responsibility to curate our subject knowledge. This curation includes facilitating knowledge transfer and establishing benchmarks and values in order to identify what the 'domain knowledge' and 'strategic knowledge' are in our field (Mottram 2002). Domain knowledge captures past achievements in the domain which exists in artefacts and records of past activity, and might come to be embodied or recorded in artefacts or records of future activity. Strategic knowledge is the active understanding of how to operate in the domain – how to undertake meaningful action. PhD students are likely to need insights into both if they are to demonstrate advanced understanding and knowledge of their field.

It is important to recognise the potency of the set of texts through which each PhD student builds their intellectual framework. They form a personal canon of subject knowledge which will overlap with that of peers. The combination of these individual canons, and their availability for scrutiny through publication, constitute a body of knowledge in a subject field - the idea of research requires the idea of a body of knowledge. A research culture needs its benchmarks and its resources on which to base further work. Innovation cannot take place in a knowledge vacuum.

But some parts of the art and design education sector seem not to value the idea of a body of knowledge, our 'cultural inheritance' (Jones 1999), and to over-emphasise strategic knowledge. This is partly a result of emphasising tacit knowledge. This tacit knowledge is special stuff, the stuff of art and design, but it is the site of some contested questions that we may need to answer before studio activity can safely claim to provide an opportunity for the development of skills and knowledge at a level commensurate institutional and governmental frameworks.

Perhaps antipathy to the notion of a body of knowledge is only a hang-over from the rejection of over-arching meta-narratives that characterised the post-modern transition. It seems appropriate to recognise the need to map the variety of information that constitutes our domain, without dictating partisan world views.
Technology now gives us the opportunity to encompass the knowledge quotient of ‘all the diverse practices’ and the ‘many cultural positions from which art is made’ (Mottram 2002). On the evidence of doctoral studies completed to date we are growing some interesting creatures in our Petri dishes, but we may want to identify particular questions and approaches that we should make priorities in the future.

We now have non-linear and non-hierarchical repositories for information which can be accessed and utilised in a variety of ways, and we can build new ones. The ADIT project is a clear marker that the research culture in art and design in the UK is becoming a responsible teenager – still gawky in places and prone to making some daft claims – but starting to look after our own data.

Bibliography


Akyuz, U (1995)., *Creation of a 2-dimensional model for pencil marks*, De Montfort University Leicester Unpublished PhD Thesis


Hanrahan, S. (1996), A combined philosophic and artistic research methodology, University of Ulster at Belfast unpublished PhD thesis


HESA (N.D. a) JACS codes, www.hesa.ac.uk/jacs/jacs.htm accessed 28 March 2006.

HESA (N.D. b) Student numbers, www.hesa.ac.uk/holisdocs/pubinfo/student/subject0405.htm accessed 28 March 2006


Hollins, W.J., (1990), Product status and the management of product design, University of Strathclyde, Unpublished PhD Thesis


ITT (nd) Index to Theses in Great Britain and Ireland, www.theses.com, accessed 26 March 2006


Kennworthy, G. (1975), The design and development of an artificial hand incorporating function and cosmosis, University of Edinburgh, Unpublished PhD thesis


Leake, Irene (1993), Apprehending movement of the human figure through the medium of drawing, with comments on its possible relationship to computer mediated interaction University of Brighton Unpublished PhD Thesis

Little Stephen (1983) A longitudinal study of strategic choice in complex organisations through the examination of technical development in the design activity, Royal College of Art, Unpublished PhD thesis


Logh, W.L. (1983), A system for computer aided design of digital circuits, University of Reading Unpublished PhD thesis


McBride, S., (1992), Designer style and its implications for computer-aided design, Queen's University at Belfast, Unpublished Phd Thesis


Newland, P.M., (1990), Understanding designers' knowledge acquisition processes: a potential for enhancing information transfer, University of Portsmouth, Unpublished Phd Thesis


Pepper, A.T (1988) *Drawing in space: a holographic system to simultaneously display drawn images on a flat surface and in three dimensional space*, University of Reading, Unpublished PhD thesis

Pizzanelli, David (1994) *Aspects of spatial and temporal parallax in multiplex holograms*, a study based on appropriated images, Royal College of Art, Unpublished PhD thesis


RAE (2001) [www.hero.ac.uk/rae/](http://www.hero.ac.uk/rae/), accessed 28 March


Turner, Mathew, (1993), *Ersatz design: Interactions between Chinese and Western Design in Hong Kong*, Royal College of Art, Unpublished PhD thesis


Watson, A (1992) An exploration of the principle of chance as a stimulus to the creative activity known as sculpture, Robert Gordon University, Unpublished PhD thesis


Young, R.A., (1989), *A refinement of the design process through an investigation of the factors which affected the design of a communications console*, Northumbria University, Unpublished PhD Thesis

Zarringhalam, Mahmoud, *The nature of Islamic art and its relationship with abstraction* (Royal College of Art, 1979)