Elizabeth Wright

Endangered Subjects, Crafting Sustainable Minds from Practice Based Education.

Abstract

Environmental and sustainable issues are often modelled within concepts of ecosystems that describe a delicate balance of interconnected relationships. Closer inspection may reveal these relationships are rarely simplistic equations based on equal measures. Systems are complex, some elements more vulnerable than others, relationships change and adapt in response to environmental conditions, or become endangered and die. In the twenty-first century sustainability requires a shift from short-term gratification based on profligate consumption, to a more globally connected and long-term view of resources.

This paper proposes sustainability as an attitude of mind. The way we think leads to the development of systems, which govern the relationships of constituent elements and determines how these are used in the production of products. Education contributes to how we think and see the world. Education through craft based subjects *'contribute to a moral and social development as they posses an inherent lawfulness.'* (Sigman, 2008, p.7) *'People learn about themselves through the things they make, that material culture matters.'* (Sennet, 2008, p.7) Why then are there a raft of endangered crafts based courses in the United Kingdom (UK) at a time of expansion in higher education, in response to government aspirations for fifty percent of eighteen to thirty year olds to enter higher education by 2010?

This paper reports on the findings of a National Arts Learning Network (NALN) questionnaire and interviews reflecting experience of *Endangered Subjects* at seven leading UK Universities. Course leaders, recent graduates and students provide fascinating insights into the contemporary educational context, where short-term measures of recruitment and direct employability threaten the existence of many craft subjects. These actions challenge the pedagogic principles of arts based education, without interrogating the long-term implications or consequences for what might remain.

This discussion is complicated as craft practitioners often 'think' through the process of their practice. A defence of the crafts and a shift to a sustainable mindset requires critical analysis of the haptic knowledge on which craft is based and translation into a rigorous discourse. These issues have implications for the broader discussion on how contemporary crafts respond to global environmental and sustainable agendas. Without hands on experience of crafts based subjects, contextualised within a global perspective, individuals may be ill-equipped to appreciate the subtle qualities that reflect the humanity of the crafts, or the analytical skills to translate this knowledge into sustainable industrial contexts.

This is not a Ludite call to arms (Quinn, 2008), or plea to subsidise the questionable economic reality of the 'hand made' in Western cultures. This paper proposes raising awareness of the benefits of creative craft based education to 'see' the world through more sustainable and ethical perspectives. Without thriving craft education, fully integrated into curriculum design, not

only do we endanger the crafts as subjects, but also the ability to appreciate their value to stimulate the intellectual potential embedded in craft knowledge, to contribute to a more positive force for society.

Introduction

To plan for sustainable futures requires understanding how we have come to be where we are and what it is about the present moment that we can change in order to contribute to making the future truly sustainable. This paper considers these issues from a UK educational context. Where it is paradoxical that at a time of expanding higher education many crafts based courses are in decline and closing. So much so that what remains has been identified as Endangered Subjects (NALN, 2009). This paper reviews research funded by the National Arts Learning Network (NALN) to investigate this phenomena and advocate a defence of these subjects.

That these subjects are in decline may, in part, be due to the long industrial history of the UK and the integration of art and design education as part of the economic activity of the country.

> *'A significant part of the framework, central principles and traditions of art and design education can be traced back to major developments in the 19th century, when the performance and contribution made by the applied arts (design) to the commercial competitiveness of British industry was first recognised by the State'* (QAA, 2002, p.2).

For more than a century art and design colleges have been complicit in the creation of desire for more and more products and services that have fuelled industrial consumption. Today the creative industries represent 7.3 per cent of the UK economy *'and are growing at five per cent per year (almost twice the rate of the rest of the economy)'* (Department for Culture, 2007).

With the rise of information technology the UK has embraced the promise of an online digital society. In the twenty first-century UK context, predominately hand made practice may appear an outdated and expensive choice. In this context the creative and commercial competitiveness of the UK may appear best orientated towards the digital domain. However, although the digital realm is rapidly expanding and offers massive opportunities, this perspective need not reject the more 'traditional' facets of the creative industries. We live in the three dimensional world. Our histories, memories and understanding of the of the 'real' and digital spheres rest on tangible experience of material objects dependant on finite resources. Ignorance of our particular history and its relationship to numerous alternative cultural histories, combined with an un-interrogated embrace of the digital, have created an insatiable and unsustainable desire for more and more products with less and less understanding of what this means. Consumption and production have become disconnected within the minds of consumers and many designers. With the loss of Endangered Subjects from Art and Design colleges, how will future designers acquire accurate information of the material costs of the products they design?

The materiality of design is an essential element within discussions around sustainability. The move to digital does not mean non-material. Vast numbers of landfill sites provide ample evidence of the rapidity of technological lifecycles and the material cost of the styled casings. *'Over 90per cent of the resources taken out of the ground today become waste within only three months'* (Chapman, 2005, p.8). Consider the power required to produce, and then run these products and it is hardly surprising that there is a growing realisation that

materials are not only finite but also rapidly diminishing. Raising awareness of these issues and creating positive attitudes from which to address the problems offers a vital opportunity for a positive contribution. Education is an integral part of this process. Craft, with its intimate understanding of materials, processes of production and the creation of products, has the potential and responsibility to actively participate in finding sustainable solutions.

If as Dryden proposed, *'we first make our habits, and then our habits make us'* (1631 – 1700), it is vital we think through how we come to make the products that shape our expectations of the future. In order to shape expectation of a sustainable future, these issues must be embedded into the educational process. After hundreds of years of Western industrialisation, where the concept of built in obsolescence fuelled many economic models, this will not be accomplished by a single, simplistic intervention but rather requires a fundamental re-conceptualisation of problems and potential solutions.

It is now, at this pivotal point in the economic cycle, where environmental awareness challenges the validity of unsustainable models, that craft based knowledge offers alternative perspectives. As crafts become endangered NALN initiated research to investigate this phenomena, to advocate a defence and contribute to sustainable futures.

NALN Research into Endangered Subjects

In spring 2006 a bidding process was initiated by NALN and the University of Cumbria was awarded project funds as lead institution. Laura Baxter and Ian Farren, at Cumbria, proceeded to set up an open invitation to all twenty-three NALN member institutions with curriculum provision in Endangered Subjects and an interest in the project. This process established a steering group of seven institutions nationally distributed;

- University of Cumbria (UC)
- Camberwell, Chelsea and Wimbledon, University of the Arts London (CCW)
- Hereford College of Arts (HC)
- London College of Communication, University of the Arts London (LCC)
- University for the Creative Arts (UCA)
- Central Saint Martins College of Art and Design, University of the Arts London (CSM).

This steering group identified the necessity to define the depth and breadth of those subjects that might be included within the category of Endangered Subjects and examine the reasons for the perceived decline. In response to these aims a definition of Endangered Subjects was proposed as part of an audit document devised to collate information from each of the seven institutions and establish a base line for further research. The audit document proposed a;

> ***'Definition of Endangered Subjects***
> *For the purposes of this data collection the term 'Endangered Subjects' is defined as those traditional subjects for which the overview of application data evidences a consistent decline; for which there is a fragile employment sector; and within which continued course provision is perceived to be at risk. This definition places an emphasis on craft, but is mindful not to exclude other art forms such as traditional music, dance and drama and rural and environmental crafts.*
>
> *The definition is as broad as possible, covering the following disciplines:*
> *Craft:*
> *- ceramics*
> *- textiles*
> *- jewellery*

- furniture
- woodwork
- glass
- metalwork
- willow work
- basketry
- paper making
- traditional toy making / automata
- leatherwork
- mosaic
stone work / letter cutting
Printing:
- letter press
- fine print / printmaking
- book binding
Performance:
- traditional music / song
- traditional dance
- traditional drama / theatre
Rural / Environmental:
- traditional rural and
- environmental crafts
- (stonewalling, thatching,
- coracle making, rope work,
- blacksmithing, coppicing).'

(Wright, 2009)

Drawing on their experience, course leaders from relevant subjects and each institution were asked to complete the audit. The findings were then used as the basis for further feedback from Masters students and recent graduates from each of the member institutions. The aim of the project was to contribute to a defence of three-dimensional craft practice in higher education. These issues were complicated because much of the knowledge on which these disciplines are based is embedded within practice and experienced through haptic engagement. Practitioners 'think' through their practice. Whilst such implicit knowledge is recognised and valued by fellow practitioners, without explicit explanation and evidence many of the qualities that constitute excellence within the crafts may seem opaque if viewed from alternative perspectives. Often such qualitative criteria are considered 'subjective' and 'soft' against more 'objective' quantitative 'hard' measures. Numeric measures are easier to compare and communicate. There is danger that in an attempt to be efficient, those measures that can be counted will be counted (Handy, 1994). What is often forgotten, is that these measures reflect different qualities and although numeric elements are easier to count, this does not mean that they necessarily count the qualities that reflect excellence in the crafts.

This danger, from making decisions based on quantitative analysis of selective variables resonates within broader discussions for sustainability. In a networked global economy decision-making can be complex as different needs compete within the mix. Craft practitioners are used to making numerous subtle decisions often distributed throughout a physical experience of practice. Through direct engagement with material, practitioners become comfortable with distributed complexity, although they may have limited practice in expressing the process in ways that can be understood beyond their discipline. It is this process of thinking through making and knowledge of materiality that offers new sustainable perspectives. The way we think influences the elements we choose to consider and the hierarchy of engagement. Craft practice offers an alternative mindset already familiar with negotiating sustainable practice within an industrialised context. The question arises, what is it about these potentially Endangered Subjects that engages students, and is there something particular about practice based knowledge that might translate into a larger model for sustainability? These are not questions that yield easily to quantitative analysis but qualitative personal experience has the advantage of revealing subtle insights that are often overlooked in the rush for short term answers.

Craft Based Practice

To identify why so many craft based courses are endangered the Course Directors at the member Institutions were asked for feedback on the proposed definition of Endangered Subjects. Three issues were identified, firstly the use of language and understanding of the nature of 'craft' within the broader social context, secondly, perceptions associated with the decline in student applications, and thirdly, fragile employment opportunities for graduates. These issues were considered within the Institutional context and as a basis for further research into student experience, before considering their relevance to the broader discourse on sustainability.

Firstly, the language surrounding 'craft' and Endangered Subjects was contentious. Whilst there were pragmatic responses reflecting the generalised and inclusive value of the term, others considered that as a concept 'craft' was down graded and devalued. A paradox as the practice it reflected was often flourishing when incorporated into alternatively titled courses such as Contemporary Applied Arts. As Ian Farren, Head of the School of Art and Design at the University of Cumbria, observed, with such controversy over language care must be taken not to let the debate focus on terminology at the expense of the issues to which they refer (2009). In the broader debate on sustainability this is valuable advice as the stakes are high and go far beyond discipline specific rivalries.

The second issue referred to a consistent decline in student applications. Again this was contested as in an expanding student population it was unclear whether the decline was in absolute numbers, or relative to the population as a whole. However, it was agreed that secondary schools contributed to misconceptions of the crafts, and often failed to provide positive information regarding potential career paths available from craft based education. These concerns were particularly worrying as the time spent at school has a significant influence on forming attitudes that shape future lives. These perceptions may in part be due to the small-scale nature of much of the business activity associated with Endangered Subjects, which fail to make their true economic contribution visible to the communities within which they operated. The individually small scale of business activity, often below the value added tax threshold, resulted in failure to attract government initiatives and access the networks of influence that they generate. Once again, failure to count reduced the opportunity to be counted. It is interesting to note that at Cumbria, where these findings were analysed, they responded with a huge leap of faith and invested many millions of pounds in a new centre for the crafts. Subsequently, the centre has become a catalyst for both traditional and contemporary crafts and has created new networks of influence. Such faith illustrated the necessity for a belief in the value of Endangered Subjects in order to support and actively re-conceptualise value within rapidly evolving markets.

In order to respond to continual change, courses must have the ability to adapt and evolve with the changing context. When the Institutions reflect the broader social context they can more effectively and efficiently integrate into a network of opportunities from schools, business and research, to investment in niche centres of excellence made viable by a global context. A belief in the sustainability of the crafts within the Institutions contributes to a positive cycle of reinforcement, reaching out into the broader social context and creating a viable vision of the future for crafts practice and employment.

The third issue raised by the definition of Endangered Subjects was that of fragile employment opportunities. However, the feedback revealed the perception of fragility was only valid if viewed from traditional concepts of working within company structures. It is debatable whether this structure was ever an appropriate reference for craft subjects. But as higher education embraces widening participation and art schools are congratulated for their openness to concepts of non-traditional learning, it is strange that the value of non-traditional employment is not acknowledged. Especially as recent research by Stephanie Taylor and Karen Littleton (2008) on creative careers identified self-employment as one of the principal attractions of the crafts based professions. Creative occupations are often appreciated for offering a *'quality of life rather than an income'* (Taylor and Littleton, 2008, p.69). This is not to dismiss the economic imperative but to illustrate the power of crafts to shape the structure of peoples lives. As Taylor and Littleton observed, many crafts people have a 'double life' where *'another occupation or even a full second career is maintained separately alongside creative work'* (2008, p.83). This may be indicative of future trends, as 'traditional' models of employment become a thing of the past. Crafts practitioners are familiar with flexible methods required to sustain their practice in changing times. The Endangered Subjects should be congratulated, rather than penalised, as these skills have value in the broader employment environment when it has been estimated that by 2025 we will *'hold an average of 19 different jobs during [a] lifetime'* (Press Association, 2004).

Similarly, it is unrealistic to anticipate 60,000 Art and Design students in the UK will immediately find full time employment directly related to their course discipline (Design Council, 2007, siting Higher Education Statistics 2005). The expansion of higher education signals a shift from education for a specific discipline, to education by discipline. Whilst this shift has been implicitly acknowledged by the expansion of higher education in the arts, the implications of these changes to employment appear unresolved. Indeed, in this scenario, the rarity of specialist makers may offer significant advantages compared to other disciplines with larger cohorts. Particularly, as in addition to traditional rural associations with crafts, the culture of the urban maker is strong and recognised as offering advantages of high level skills together with alternative ways of thinking and problem solving (Wright, 2009, p. 27).

From a sustainability perspective, the ability to re-conceive potential and rapidly adapt has advantages that may not be open to large scale, hierarchical organisations. However, recent experience of the economic downturn has shown how large-scale enterprise can distort the market and leverage protection from fear of massive failure. This protectionism may have short-term relevance but illustrates the power of established models to maintain their positions and reinforce selective perceptions of value. It is interesting to note that the proposed definition of Endangered Subjects included reference to a decline in student applications but none of the responses referred to Institutional policy relating to this issue. With such a fundamental threat to integral elements of the curriculum it might be anticipated that the Institutions would have a statement of aims and an understanding of how the constituent disciplines contribute to these goals.

Absence of clearly defined aims allows elements to be added or removed without consideration of the impact to what remains. In the absence of clearly defined aims the Institutions are vulnerable to external pressure, rather than supported by evidence and proactive within the discourse and professional community. The NALN project aimed to provide evidence to defend the Endangered Subjects against perceptions of a decline in student applications.

This questioned why students chose to study, or not to study Endangered Subjects and considered the implications for sustainable practice, as practitioners, Institutions and within the broader context. To allow comparison between disciplines, student experience from a range of flourishing and Endangered Subject courses were reviewed. Twenty Interactive Media students from The London College of Communication, University of the Arts London, completed questionnaires and a further twenty graduates from a range of Endangered Subjects were interviewed.

Student Experience

The Interactive Media masters students came from a wide range of previous cultural and academic experience, from engineering, science, psychology to graphic design, advertising and media degrees. Stephen Brookfield's Critical Incident Questionnaire formed the basis of the questions and was referenced to prompt reflection on decisions to study and on perceptions of Interactive Media (1995, p.114). The questionnaire asked for their first experience of craft, why they decided not to study craft subjects, why they chose to study Interactive Media, what was the best, the hardest, the most puzzling and most surprising thing about what they did. Of all the responses the largest area of agreement was that the majority of students, sixteen out of twenty, had experienced craft early in their lives, either at home or pre-school and five continued to consider craft as a hobby. However, they chose Interactive Media because they clearly understood a progression in their learning, connected to personal perceptions of value, integrated within a wide range of different applications with relevance to the future. Their practice was contextualised beyond themselves, they believed their practice was sustainable and relevant to the future. The connections, integration and speed of development surprised Fernanda Tak (LCC) who thought, *'this world cannot thrive without multi media.'* Such conviction may come at a price, as Ludovic Chok (LCC) was puzzled that they *'create needs rather than solutions.'*

To probe these responses, the questionnaire was extended to form the basis for semi structured interviews with graduates from Endangered Subjects. The graduates represented a range of disciplines from glass, black-smithing, furniture making and embroidery, to ceramics, weave, metal work, print, book arts and crafts. Graduates from each Institution were represented and reflected different backgrounds and life experience, ages, sex and cultural diversity. Some straight from school, whilst others were mature students who had previously had alternative careers for many years before returning to study. Their early experience of craft appeared to be similar to students from Interactive Media and focused on activities in the home. However, the responses often specified the involvement of a parent or grandparents encouragement, as Helen Little remembered, *'I learnt from her just simply because I wanted to be with my grandma.'* (UC)

Although experiences at school were mentioned, these rarely reflected positive memories. Lydia Hardwick remembered *'we had to go out of the classroom once a fortnight, a big woman, three or four of us at a time and made bookmarks but we'd only be outside for twenty minutes and do about three stitches, get them wrong and she'd unpick them.'* (CCW) Craft was distinguished from Art at school, where Art was considered to be drawing and painting and only encouraged if you were not 'traditionally academic.' Jan Hicks remembered *'Grammar school girls got pushed into sciences because art was something you did as a hobby.'* (UC) Jan went onto a degree in Micro Biology and Genetics at Leeds and spent twenty years in medical publishing

before buying a farm in Cumbria and raising angora goats and sheep from which see dyes her own yarn for weaving. Jan kept knitting and sewing as a hobby and after a City and Guilds course went onto complete a degree in Contemporary Applied Arts at the University of Cumbria and plans to progress to the masters program.

The importance of working with materials was a common theme. As Lydia Hardwick reflected, *'there is no real decision to study craft, it is a decision to use materials in a way that would actively convey a concept.'* (CCW) To explore concepts through materials, to learn through making and express feelings as a creative and sometimes therapeutic act. Well being, through self expression was an important theme as a number of interviewees spoke freely about significant mental health issues that had been mediated through their practice. A sense of fulfilment was valued, as Helen Little remembered advice from her father; *'he said, do you know what Helen, you find a job you love and you'll never work a day again in your life.'* (UC) Encouragement from family and tutors was clearly important. However, specific selection of a discipline area was principally focused around the interaction between materials, techniques and the desire to engage with the process of making. Jon Twin valued the range of skills associated with book arts and crafts but loved *'the fact that you are holding someone's thoughts and knowledge, it's just that manifestation of things that are meant to be intangible, it's great.'* (LCC) Thoughts like these were expanded when asked for the best thing about what they were doing. *'How happy it makes me feel'* (Helen Little, UC), *'I can be myself through my work,'* (Lianne Winter, HCA) *'I have a real passion for my work.'* (Lindy Mitchley, UCA) Whilst the hardest thing orientated around time management, self-promotion, making a living and *'not being valued, I was one, I never thought ceramic was valuable. I always thought this is a secondary thing and not fine art.'* (Belgin Bozsahin, CCW) The graduates were often puzzled about where their work might fit in and that *'the markets between Art and Design are so divided.'* (Andrea Martin, CSM) Whilst Daniel Evans (UC) was pleasantly surprised that he still loved wood and making furniture after giving up a steady living, re-mortgaging his house and commuting more than sixty miles each way, every day, to complete his course. This level of commitment was clear in the graduate's advice to anyone considering this path, as although these subjects may be challenging and frustrating, all the interviewees were positive in their endorsements.

Reflecting on Endangered Subjects

What did these interviews reveal about why people decide to study, or not to study Endangered Subjects? It appeared not so much a conscious decision to study, but more a feeling that they were compelled to follow this direction, whether as part of the education system, or therapeutic response, desire to express themselves or change of careers. The materials, processes and people involved drew them in and helped to channel their motivations. Although often associated with an ultimate sense of well being, this is not a simple or comfortable process as these issues reflect elements often explored by thinking through making and it can be difficult to articulate the intellectual processes involved. This does not diminish the value of the intellectual process but rather reveals important aspects often overlooked by 'traditional' concepts of academic ability. A broader view of intelligence is proposed by Howard Gardner, originator of the concept of multiple forms of intelligence. Gardner proposes a definition of intelligence as; *'a biopsychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture.'* (1999, p.33 / 34) Perceptions of

intellectual value are culturally based. As the culture changes to value sustainability so will assessments of value.

The concept of multiple intelligence allows for alternative perceptions of value and has been incorporated into pedagogic theories and, although not uncontested, acceptance of different learning styles. This does not mean that fundamental aims are amended for each learning style but that there is an acknowledgement that there are different ways to achieve these goals. This is implicitly recognised by the Quality Assurance Agency who state; *'learning in art and design stimulates the development of an enquiring, analytical and creative approach, and encourages the acquisition of independent judgement and critical self awareness.'* (2002, p.2) Where 'traditional' concepts of intelligence may have driven Western industrialisation, these concepts are challenged by sustainability to find new models. As craft practice offers alternative models of thinking, why are applications to Endangered Subjects falling?

Over the last thirty years there has been a huge expansion of consumer culture within Western economies and increasingly throughout the East. Low production costs in Asia and the development of computer technology has enabled many more products to be designed, desired and consumed. Craft has become expensive and the notion of hand made devalued against the polish of the machine aesthetic. Whilst technological innovation has created a global market, the real cost of production has become disconnected and absent from the act of consumption. These patterns of consumption frame expectations and the perceptions of value that substantiate social hierarchies of power. At a recent conference on Widening Participation Penny Burke described how hierarchies of power within Institutions *'shape struggles over access and participation.'* (2009) These inequalities and expectations have combined within perceptions of value to create a confluence of prejudice against the crafts within the Institutions.

Five significant areas of prejudice have been identified. Firstly as Burke notes there is a divide between teaching and research, where research carries higher esteem, recognised by the RAE and contributes to notions of *'world classness'.* The move from Art Schools to Universities has extended these perceptions into the craft subjects. Tutors for these 'soft' subjects are doubly dammed, firstly by teaching and secondly for doing so in non-research rich areas. Once again the crafts are poorly judged by inappropriate, external and selective measure of excellence. In addition, in many of the Endangered Subjects the majority of students are female, so much so that interviewee Lizzie Searle described it as *'a stigma.'* (UC) Burke notes this issue and identifies the power of sexual inequality within the Institutions. This is compounded within Endangered Subjects by increasing numbers of mature students. As Institutions focus on the needs of younger students, there is a danger of age discrimination under the Disability Discrimination Act of 2006. When these issues are combined with the general opinion of the degraded value of the term 'craft', by its association with hobbies and the amateur, and the outlook is bleak. However, the cultural lag that informs these views is outdated and open to debate.

The context has changed and so a defence may emerge from a reappraisal of the areas of attack. What is wrong with the amateur and the enthusiast? Many of the graduates interviewed sited the positive influence of relatives who practised craft as a hobby. These enthusiasts often attend evening classes, which were also recommended by graduates as an excellent way to try a discipline before committing to a degree course. For example, Rebecca Fairclough (UCA) and Lindy Mitchley (UCA) both signed up for a degree in glass

making without any previous hands on experience. Rebecca followed a childhood passion for glass and Lindy the advice of a tutor but both expressed the desire that they had more tangible reasons for making their choices, if only as justification for the support of their families. Crafts and crafts people need to be supported within an environment where craft is valued and appreciated. An active and enthusiastic amateur community is a vital asset. Much of the growth of the internet has been possible because of the inclusive embrace of the amateur, both young and old. In an ageing population the demographic shift will have far a reaching impact as we all live longer and may follow multiple career paths. A range of options, not least those that lead to opportunities for self-employment and self-expression, offer welcome additions. Similarly, the role of women in society is changing and financial independence alters consumer behaviour. Change leads to re-evaluation and research. Rising student numbers has forced a reappraisal of teaching methods and an increase in pedagogic research, where increasingly experiential learning by doing is held as an exemplar of practice. And craft itself, as this conference attests, is engaging in research and challenging outdated perceptions. Each area of prejudice challenged when considered from alternative perspectives and criteria for assessment.

Hierarchies of power maintain their power by defining the criteria against which success is measured and from which expectations are formed. Once embedded these expectations become implicit and as such, rarely interrogated for the validity of the values they convey. Making the knowledge embedded in practice explicit is not an end in itself. It is in order to interrogate the value of the process in action. For both individual students and the Institutions to contextualise their practice and their place in the future. Raising awareness of the intellectual potential in practice prompts an understanding of the need to invest in and nurture the process. Without explicit understanding, the implicit knowledge embedded in practice remains locked into and accessible only through practice, rather than as a transferable asset. As disciplines with transferable applications craft practice can contribute to the discourse on sustainability.

This language echoes the economic tenor of the market place but does not endorse this ethos as the basis for decision making. For as Michael Sandel, this years Reith Lecturer, observed:

> *'Some of the good things in life are corrupted or degraded if turned into commodities, so to decide when to use markets, it's not enough to think about efficiency; we have also to decide how to value the goods in question. Health, education, national defence, criminal justice, environmental protection and so on – these are moral and political questions, not merely economic ones.'* (2009)

Sandel points out that *'we have drifted from having a market economy to being a market society'* (2009) where social institutions ethos and orientations has evolved through the adoption of market driven models. Certainly some of the closures of crafts based courses have been rationalised using simplistic economics based on relative use of space and tuition. Economic reality is undoubtedly important but equally so is a long-term sustainable vision of the purpose of the Institutions within society and for the individuals they educate.

Education is a process of transformation. Education through craft transforms people by the processes they use in the products they make and desire. Learning to make objects transforms people with particular talents in particular ways. Endangered Subjects transforms people by crafting minds through the craft of their practice. Whilst we cannot predict the specific requirements for a

sustainable future, we can be sure that the issues raised are so diverse as to need every intellectual asset available. Individually, socially and globally, craft practice offers broadly based and positive returns on the investment.

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References

Burke, P.J. (2009) Reconceptualising Widening Participation, The Sheila Soul-Gray Memorial Lecture, National Arts Learning Network Annual Conference, What now for participation in the arts?

Brookfield, S. D. (1995) Becoming a Critically Reflective Teacher, Jossey-Bass, San Francisco.

Chapman, J. (2005) Emotionally Durable Design, Objects, Experience & Empathy, Earthscan, London.

Department for Culture, Media and Sport (2007) Staying Ahead: the economic performance of the UK's creative industries.

Design Council (2007) Education, The Business of Design, Accessed 13.12.2008, http://www.designcouncil.org.uk/en/About-Design/Research/The-Business-of-Design2/Education/

Farren, I. (2009) Hybrid Practice, Forum for Debate for the Crafts in the 21st Century, Endangered Craft Practice, Central Saint Martins College of Art and Design, University of the Arts, 5th march 2009.

Gardner, H. (1999) Intelligence Reframed, multiple intelligences for the 21st century, Basic Books, New York.

Handy, C. (1994) The Empty Raincoat, Making Sense of the Future, Hutchinson, London.

Press Association (2004) Future Workers 'will have 19 jobs', Humphries, C., Director General at City and Guilds 2004.

QAA. (2002) Art and Design: Subject Benchmark Statement, Academic Standards, Gloucester, Quality Assurance Agency for Higher Education.

Quinn, A. and Hearn, K. (2008) The Need to See: a reflection on the three-dimensional learning process in design, CLTAD 4th International Conference, Enhancing Curricula: using research and enquiry to inform student learning in the disciplines.

Sennett, R. (2008) The Craftsman, Allen Lane, London

Sigman, A. (2008) Practically Minded, The Benefits and Mechanisms Associated with a Crafts-Based Curriculum, Ruskin Mill Hill Trust (RMHT)

Sandel, M. (2009) Lecture 1, Markets and Moral, Reith Lectures 2009: A New Citizenship, Transmission 9th June 2009, BBC Radio 4, transcription.

Taylor, S. & Littleton, K. (2008) Creative Careers and Non-traditional Trajectories, The National Arts Learning Network (NALN).

Wright, E. (2009) Endangered Subjects, A Review of Practice at Seven Leading UK Universities, National Arts Learning Network (NALN), London.