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Putting it into practice: Bridging the gap between learning and doing

> We construct and construct, and yet intuition is still a good thing. A considerable amount can be done without it, but not all. There is plenty of room for exact research in art, but there is no substitute for intuition. (Klee 1958[1929])

This paper sets out to explore thinking-through-making as a complex dynamic of learnt skills and intuitive thought and to examine how these may be taught in what will be termed in this context 'learning and doing'. The paper proposes that, whilst there are established strategies relating to the acquisition of craft skills and to creativity, it is less clear how intuition, as the act of knowing or sensing in the moment, can be taught in the context of art and design education. The paper will take the practice of drawing as its exemplar in this exploration of intuition, examining how it might be described and imparted in an education context and its value in creative, entrepreneurial and sustainable practice. I set out to unpack what we might mean by 'intuition' in arts practice by examining the Aristotelian concepts of techné, metis and kairos. This mode of thinking is seen as the desired result in creative practice and the paper will argue that it is expressed most cogently in the teaching of drawing.

Firstly I would like to approach the question of what might constitute intuition by thinking in a particular way about creativity. Despite a history that stretches back to the 1920s, modern research into creativity has not produced one outlook sufficiently widely accepted to serve as a unifying theory (Beattie 2000: 175). I would like to examine some current theories of creativity before asking what role intuition may play within it. There are many individual theories in the field relating to creativity – I would like to look at three of these that seem to have most relevance to art and design education.

The most widespread approach to creativity is the creative strategies model, characterised by a pragmatic or commercial approach that builds on what is known about the causes and effects of creativity and attempts to construct this into a usable model that can be taught. Examples include Geoff Petty's 'How to be Better at Creativity' (familiar to those who have passed through post-graduate training in teaching) which describes a system that can be applied to a learning environment through the mnemonic ICEDIP and a process which involves, in order, Inspiration, Clarification, Evaluation, Distillation, Incubation and Perspiration (Petty 1997). This is a variation on early work by Helmholtz in the late nineteenth century and Graham Wallas's system of 1926 that uses Idea, Germination, Knowledge Accumulation, Incubation, Illumination and Verification. It is no surprise that the teaching of creative strategies within the education sector has drawn so much of its inspiration from this approach: it lends itself to an off-the-shelf, turnkey solution to motivating students whilst providing opportunities to explore feelings and develop new skills. The system has largely grown from economic business necessity, closely following the growth of a business approach within the Higher Education system itself.

Alternatively, the cognitive style theory of creativity sets out a rational and problem-solving approach when dealing with creativity. It is closely allied to the pragmatic approach detailed above, again based on the Helmholtz and Wallas models. Research into 'cognitive styles' (Kirton 1976: 622) has attempted to discover what kinds of creativity techniques work best with which kinds of people and under what circumstances. It is in effect looking beneath the pragmatic approach and moving towards an understanding of why individuals approach problems in different ways, particularly in a group situation. Cognitive styles refer to an individual's typical mode of thinking, which 'cuts across diverse spheres of behaviour' (Messick 1976: 59) and which are relatively stable over time. Kirton identified a personality continuum that he called 'Adaptor–Innovator' (Kirton 1976: 622) which reflects two very different approaches to creativity. In this, the adaptor is characterised by precision, reliability, conformity and the use of convergent thinking; the adaptor

reduces problems by improvement and bringing greater efficiency. The innovator, however, prefers to challenge the prevailing structures, is sometimes seen as undisciplined, and often solves problems by breaking down patterns and doing things in a different way, using divergent thinking.

A more interesting third model for a discussion on the role of intuition is the confluent or systems approach, which emphasises the interaction of different forces within creativity. This research introduces a post-modern paradigm for thinking about creativity that removes it from a process existing in a single person at a particular time, instead placing it in a complex social system of opposing and related forces. The work of Mihaly Csikszentmihaly is key here, amongst other researchers (Feldman et al. 1994). Interestingly, Csikszentmihaly (1994: 85) does not ask 'What is creativity?' but rather 'Where is creativity?', arguing that only when we have answered this question can we begin to define it adequately. A common model in an art school institution teaching contemporary art practice is made up of a series of groupings – the taught group (undergraduates), staff members (also commonly practising artists) and a context that reaches out to contemporary practice in its widest sense. The systems approach looks at creativity as a concept resulting from the interaction of a field, a domain and an individual. Here the field is defined as the 'social and cultural aspects of a profession or job' (Feldman 1994: 12). In the case of the arts, this is artists, curators, museum administrators and so on whilst, in the closed system of the art school, the field is represented by the tutors and their connections to the outside art world. The field 'recognises, preserves and remembers the creative endeavour'. The domain is the structure formed by the field and is a formal organisation of the body of knowledge and is a 'set of symbolic rules and procedures' (Csikszentmihaly 1994: 85). In the art school model, the domain has its corollary in the art world outside the school, with its norms and conventions, however unconventional these may be. Finally the individual is the 'site of the acquisition, organisation and transformation of knowledge which has the possibility of changing domains and fields' (Feldman 1994: 16).

The three elements relate to one another in a dynamic way; the domain, as the body of knowledge, transmits learning to the individual who, by understanding the rules and by creatively adapting them, produces a variation in them; the field selects the variation and passes it back to the domain. In the context of the learning environment, the cycle should be applied to the student experience in so far as it operates within the understanding of the student. That is, the teacher operates as 'gate-keeper' for the domain, allowing the student to deal with the existing domain through a system of modules or via modelling strategies. Current research, as well, shows that 'creativity is domain-specific' (Baer 1993: 337), relying on a sufficient grasp of knowledge of a domain for it to act as a basis of creativity.

To sum up this overview of theories of creativity – the first, creative strategies model, current in mainstream educational practice, can be defined by the ability to generate innovative ideas and manifest them from thought into reality. The process involves original thinking and then producing by separating creativity into discrete steps. This is what Deleuze and Guattari (2004[1980]: 450) would call a matter-form or hylomorphic model, a perspective which only takes into account what goes in and what comes out of a process, effectively an imposition of form onto matter by the maker. Their thinking about the creative act and its impact upon the matter or material to which it is directed that is important here. The second, cognitive styles model follows a similar path, with a focus on the individual attributes of the subject (Adaptor–Innovator). The third, confluent or systems approach, however, emphasises the interaction of dynamic forces within creativity, removing it from a process existing in a single person at a particular time, instead placing it in a complex social system of opposing and related forces. If creativity is a quality that exists within this social system, then the means to influence novel approaches or innovations in a domain, to be 'transformational', is one closely aligned to a quality we might call intuition.

Deleuze and Guattari go on to say that whenever we encounter matter it is matter in movement, in flux, in variation, with the consequence that 'this matter-flow can only be followed' (p. 451). Thus, artisans or practitioners who follow this flow are, in effect, wayfarers, whose task is to enter the grain of the world's becoming and bend it to an evolving purpose: theirs is 'an intuition in action' (p. 452). This wayfaring, or following of the flow, works continually against the grain of traditional categories and conventional methods; it upsets orders of scale, imparts unusual rhythms, creates social turbulence and sometimes, if it is fortunate, gives birth to new modes of expression that are then selected and passed on. Thus intuition could be seen as an ability to follow and respond to the ebb and flow of materials and ideas to effect a change or divert the course of a material that is in flux and is implicated in the flow of the forces at work in creativity, as we

have seen above. As Valerie Janesick (2001: 539) puts it: 'Intuition is connected to creativity, for intuition is the seed, so to speak, of the creative act.' There is, by necessity, no road map in the development of an original idea; instead, intuition seems to be a way of navigating blind, like feeling a way forward in a fog of, in this case, creative possibilities that are the result of the dynamic that exists between an individual, a domain and a field.

We have considered creativity as a relative judgement of a social system where the individual is the 'site of the acquisition, organisation and transformation of knowledge' (Feldman 1994: 16). Turning now to how these qualities could express themselves in the individual in the context of the 'matter-flow that can only be followed' (Deleuze and Guattari 2004: 451) that we have seen above, I would like to consider Aristotle's description of a form of productive knowledge or techné and its attendant concepts, metis and kairos. Often described as a craft-like knowledge, techné is most useful when the knowledge is practically applied, rather than theoretically or aesthetically applied. However, it is not just the skilful art of making: returning to how the term was used within Ancient Greek culture it could be reconsidered as an insurgent, subversive and disruptive species of tactical knowledge that intervenes, undertakes, responds to situations, develops new ways of operating in situations where habitual forms of knowledge no longer suffice, situations that are 'contingent, shifting or unpredictable' (Cocker 2012: xvi). It is the art of knowing-when, of attempting to catch the situation off guard. Most importantly, in this system of techné, opportunities or chances are produced rather than simply awaited: rather a continual attention is required by the protagonist, a medial position which actively maintains the conditions for opportunities to arise.

Metis is the attendant form of intelligence associated with techné: it is a cunning intelligence, a shrewd and enterprising spirit – flair, wisdom, forethought, subtlety of mind, opportunism. It feels its way forward, guessing, a type of thinking that is at odds with rational 'knowledge'. Writing on the subject of metis, Marcel Detienne and Jean-Pierre Vernant (1991: 3) describe it as:

> A type of intelligence and of thought, a way of knowing; it implies a complex but very coherent body of mental attitudes and intellectual behaviour which combine flair, wisdom, forethought, subtlety of mind, resourcefulness … applied to situations which are transient, shifting, disconcerting and ambiguous, situations which do not lend themselves to precise measurement, exact calculation or rigorous logic.

Knowing the moment to act, to put into practice, is defined in Aristotelian terms by kairos – the time associated with techné. It is 'a passing instant when an opening appears which must be driven through with force if success is to be achieved' (White 1987: 13) which is bound up with an ability to adapt to and take advantage of changing, contingent circumstances. It operates outside of 'chronos', or everyday time. In this sense, kairos is not time taken, but timeliness, a 'temporal gap or breach opening up within the logic of chronos' (Cocker 2012: xvii). Thus Aristotle sets out techné as a tactical practice that is capable of setting up the conditions where kairos (the time of opportunity) might arise and in knowing (through metis) how and when to act in response. Applying this model to the earlier definitions of creativity, this is a way of thinking about creativity that is at odds with the acquisition of rational knowledge and received wisdom in the production of novel forms. Rather it preferences knowing how and knowing when: these are attributes that we commonly associate with an intuitive intelligence that is capable of being transformative in its field of operation.

The idea of techné has a long history in Western thought. Heidegger's interpretation is to 'bring forth or to produce' (Heidegger 1971[1951]: 159), to make something appear, to reveal or produce, through poesis (or production). Heidegger makes two points about techné: in the sense of 'technique', techné refers to both manufacturing (the techniques of shoemakers and printers, for example) and to the arts (for instance, the techniques of poets and graphic designers). Techné, for Heidegger, is part of poesis and is a kind of knowing. We might think of it as expertise, which we generally understand as more than a set of practical skills. It is 'know-how'; in Heidegger's words, 'what is decisive in techné does not lie at all in making and manipulating nor in the using of means, but rather in the revealing.' If we understand technology as deriving from this concept of techné, Heidegger continues, then we will see that its essence lies not in the instrumental production of goods or manipulation of materials, but in this sense of revealing. Heidegger, in his essay 'The question concerning technology' describes the silversmith, who, through his techné, brings together the form and matter of the chalice within the idea of 'chaliceness' to reveal the chalice that has been 'on its way' to existence (Heidegger 1977: 295). This

aspect of revealing adds an important attribute to the qualities of cunning intelligence and timeliness that we have seen above. As Hubert Dreyfus and Sean Dorrance Kelly (2011: 209) state: 'The task of the craftsman is not to generate the meaning, but rather to cultivate in himself the skill for discerning the meanings that are already there.'

Knowing the right moment bears witness to a very complex kind of mimesis – what Bourdieu calls the 'embodiment' of an art. What is 'learned by body', according to Bourdieu, 'is not something that one has, like knowledge that can be brandished, but something that one is' (Atwill 1998: 59). Only this kind of embodiment creates the mastery that 'makes it possible to appreciate the meaning of the situation instantly, at a glance, in the heat of the action, and to produce at once the opportune response'. Jennifer Atwill goes on to relate the writing of the Greek rhetor Isocrates in his Antidosis, where he is clear that deploying an art at the 'right moment' in a particular situation is something that cannot be taught by explicit rules or precepts. Isocrates is especially sensitive to the notion that acquiring a 'sense' of the right way and right moment requires careful inculcation and the imitation of the masters, which he describes as 'habituation' (Atwill 1998: 58). Bringing us up to the present, how can we teach the deployment at the 'right moment' in a particular situation if this is something that cannot be taught by explicit rules or precepts, but is seemingly something, according to Bourdieu, that one already 'has'?

The act and practice of drawing have an important role to play here, both as a 'primary means of symbolic communication' (Downs et al. 2007: xi) and as a 'means of making manifest that which could not have been conceived of at the outset nor planned for in advance ... but simply attempts to bring forth, make appear' (Cocker 2012: xiii). It mediates as well between the physical and the metaphysical, between thought and perception, and refers to both simultaneously. It interrogates meaning in a particular way: Derrida (1993: 61) describes it as 'disseminated meaning, which remains fragmented, multiple and dispersed'. It does not need to be logical and can extend beyond the thing or entity it describes (Downs et al. 2007: xvi). Liberated from the need to access truth, the concept of meaning in drawing can extend beyond appearance allowing a number of possibilities to inhabit the image that can exist at the same time. These possibilities are not required to resolve themselves, instead they exist contemporaneously as part of the 'context' of the image: 'It works much like a figure-field switch, in which the peripheral becomes necessary and central at the same time as being an addition' (Downs et al. 2007: xvii). In drawing, the drawer uses intuition to inscribe the mercurial drawn line: as a means to judge when to yield to whim and when to reassert control, when to be attentive to variables and when to be prepared for the unexpected (Cocker 2012: xv). Intuition, speculation, courting failure: these are all cornerstones of a studio practice when articulated or orchestrated meaningfully in the studio community of practice. My own teaching practice begins with expanding student perceptions of what drawing can be and fostering construction of new knowledge, idea generation and cross-level communities of drawing practice. This takes the form of drawing workshops and seminars that encourage debate, critical thinking, collaborative practice, research into practice and idea generation through experiential learning. Experiential learning in this context is through tacit knowledge; gesture and its link to the haptic process of making; gathering information by touch; the inter relationship between handwork and the individual body's physique and temporality and rhythm in learning.

Bourdieu's suggestion of an 'embodiment' leads to the conclusion that intuition can be taught by modelling behaviour and by habituation. Relating this to the confluent or systems model of creativity discussed in the opening paragraphs of this paper, we could conclude as well that it is learnt most effectively within the flowing together and merging of social forces than from a community of practice. As Jean Lave (1990: 312) writes when she says that learning is a matter of 'understanding in practice' rather than 'acquiring culture', this happens in a social setting, in a community of practice, amongst the act of co-learning with one's peers. By thinking about intuition and creativity as a play of forces rather than a series of discrete steps we bring to bear what Tim Ingold (2013: 11) describes as a means of turning students into

> good hunters ... to train students in the art of inquiry, to sharpen their powers of observation, and to encourage them to think through observation rather than after it. Like hunters they have to learn to learn, to follow the movements of beings and things, and in turn to respond to them with judgement and precision.

Drawing as an intuitive practice in its own right has a powerful part to play in the inculcation of techné, timeliness and tactical intelligence in the student as the materials and divergent rhythms of drawing ebb and flow in their hands.

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