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Creativity in the Making:

Commissioning Editor's Introduction

Norman Jackson



If we place the idea of **making**, 'the act or process of forming, causing, doing, or coming into being'¹ alongside the act of **creating**: 'to make or bring into existence something new'¹, we can see that the two ideas are deeply consistent, separated only by the quality of newness and originality. Indeed, making is often the means by which we create something new - regardless of whether it is new to ourselves, to others close to us or to the whole world. So we are starting this exploration with the expectation that we will find much creativity in processes and acts of making, regardless of whether it relates to the production of artistic or functional objects, material or digital objects, processes, performances or any other kind of human artefact. But questions of what creativity means and how, why and where it is manifested in making are the details that concern us here.

The role of imagination in making is of particular interest. We can make something simply by copying or imitating something which is already made. For example, my wife often consults YouTube videos to find out how to make a particular item when she is crocheting it for the first time. We all do this referring to some pre-existing reference work when we try to make something when we are uncertain how to proceed. Alternatively, we can harness our imagination and cognition to create an idea that we try to bring into tangible existence through our making i.e. a pathway of invention. Perhaps more accurately a continuous stream of ideas that emerge from our unfolding situations which lead us to continue acting.

One of the things I like to make are illustrations that convey ideas and concepts relevant to education. I lack the skill of an illustrator so I work collaboratively with artist/illustrator Kiboko HachiYon to create our illustrations. The illustration below provides a representation of a making process. It contains a narrative that connects imagined thoughts that emerge in particular circumstances that inspire and motivate the thinker to make a novel artefact.

The picture tells the story of a young man listening to music on his ipod and looking at some cakes in a shop window. Combining the ideas of music and cakes he creates a new idea of a musical cake which plays his favourite tunes while it is eaten - a *musicake*. The more he thought about it the more he could see the potential in the idea and the more he became motivated to make a musicake. He sat on his computer for hours imagining and working out what he had to do and began experimenting making cakes and embedding in them the capacity to play a tune. His making involves lots of trial and error, lots of problem solving, lots of failures but slowly he inched forwards towards his goal. Throughout this time his mind played a merry dance along the cognitive continuum as he perceived, imagined, reasoned and reflected on the results of his actions. After many weeks of effort he makes a cake that he is satisfied with. It is nothing like he imagined it would be but he is feels a sense of pride in his achievement and tries it out with his friends.



CREATIVITY IN THE MAKING

This made-up story illustrates a number of theories relevant to making that we can draw upon when we try to gain deeper understandings of our own making.

Firstly, it illustrates how imagination can combine ideas to produce a hybrid idea. And how such a novel idea can motivate the thinker to commit time and energy to bring the idea into practical existence. But imagination does not stop when an idea is conceived it is drawn upon throughout the process of making.

Secondly, making involves doing something more than thinking. It involves working skillfully with materials and learning how to use particular materials in particular ways to achieve a particular purpose. In the words of Tim Ingold, “the maker from the outset [is] a participant .. amongst a world of active materials. These materials are what he has to work with, and in the process of making he ‘joins forces’ with them, bringing them together or splitting them apart, synthesising and distilling, in anticipation of what might emerge.”² At the start of our #creativeHE conversation³, John Rae introduced us to theories of *material thinking*⁴ proposing that all making involves this way of thinking. ‘Material thinking; the materialisation of thinking, the material of thinking or thinking that takes place through material which may or may not result in a materialised, realized or made thought.’^{5:1} Vaughan connects this act to creation ‘To imagine the possibility of the materialising of thoughts and ideas is to inhabit a space [or place] of creation, of making’^{5:2}. All the narratives of making in this issue reveal the nature of material thinking in a particular set of circumstances.

Thirdly, making involves connecting! David Gauntlett offers three propositions: ‘Making is connecting because you have to connect things together (materials, ideas, or both) to make something new; Making is connecting because acts of creativity usually involve, at some point, a social dimension and connect us with other people; And making is connecting because through making things and sharing them in the world, we increase our engagement and connection with our social and physical environments.’^{6:2} To these we might add - making involves connecting the head, heart and hands with the materials we are using to make whatever it is we are making. Through this physical, emotional and social process of connecting, combining and integrating we make and share new meanings. The narratives in this issue reveal in some detail, the way people animate these propositions in their making.

Fourthly, the process of connecting is fundamentally a relational and interactional process involving people, their environments and the materials in it, and things that matter to them. This dynamic view of making in which creativity flourishes, means that we are concerned with theories of creativity (and making) that are action - or activity-based. Vlad Glaveanu and others highlight the importance of *creativity as action*, “creative action [eg making] takes place not “inside” individual creators but “in between” actors and their environment”^{7:1} These authors also highlight the relevance of John Dewey’s concept of undergoing in his work ‘Art as Experience’⁸.

“Action starts, as depicted, with an impulsion and is directed toward fulfilment. In order for action to constitute experience though, obstacles or constraints are needed. Faced with these challenges, the importantly, action is structured as a continuous cycle of “doing” (actions directed at the environment) an “undergoing” (taking in the reaction of the environment). Undergoing always precedes doing and, at the same time, is continued by it. It is through these interconnected processes that action can be taken forward and become a “full” experience”^{7:2-3}

Anthropologist Tim Ingold offers two perspectives on the idea and process of making namely ^{2:20-2} making as a project, “we start with an idea in mind, of what we want to achieve, and with a supply of the raw material needed to achieve it. And it is to finish at the moment when the material has taken on the intended form”, or, making as a process of growth”. But perhaps it’s not a dichotomy. The illustration above could be conceptualized as both a project (to make a musical cake) and a process of personal development through which the person learns to make the musical cake.

Ingold highlights the significance of ‘undergoing’ through participation in an uncertain, dynamic unfolding, creative process such as making.

“....in undergoing, the relation of temporal priority between mastery and submission is the reverse of what is assumed in the cognitive or intentionalist account of doing. Here *submission leads and mastery follows*.... Rather than a commanding mind that already knows its will trailing a subservient body in its wake, out in front is an aspirant imagination that feels its way forward, improvising a passage through as yet unformed world, while bringing up the rear is a prehensive perception already accustomed to the ways of the world and skilled in observing and responding to its affordances.”^{9:137}

This perception of what is happening in the doing of some making activities, draws attention to the ecological and emergent nature of the phenomenon. This idea is brilliantly captured in Carl Rogers concept of a creative process¹⁰, “the emergence in action of a novel relational product growing out of the uniqueness of the individual on the one hand, and the materials, events, or circumstances of their life”. MAKING is one name we give to such a process and the narratives provided in this issue enable us to explore the nature of ecologies for making in a number of contexts.

Homo Faber (man the maker)

Human beings are many things but one of the things that distinguishes us from other animals is our capacity to make and our continuous involvement in making. Homo Faber (Latin for 'man the maker') is the reason that we have created a world full of technologies and artistic artefacts, and landscapes full of man-made structures. Thomas and Brown have some interesting things to say about man the maker which highlights the deep significance of making for learning.

"Homo Faber is more than simply making; it is making within a social context that values participation. It is akin to what Michael Polanyi has described as "indwelling," the process by which we begin to comprehend and understand something by connecting to it and, literally, living and dwelling in it. In that way, making also taps into the richness of becoming. We learn through making, building, and shaping not to produce something static, but to engage in the process of participation. In fact, we may go so far as to say, there can be no sense of becoming, particularly as it relates to learning, without the dimension of Homo Faber as indwelling"^{11:7}

"Homo Faber [creates] an epistemology which is centered on knowing and becoming, rather than knowledge and being and which takes practices of fabrication, creation and participation as the cornerstones of learning. Accordingly, Homo Faber no longer divorces knowledge from knowing, or explicit from tacit understanding. Instead, Homo Faber invites us to think about the ways in which the two are inherently connected and supplemental to one another. Through creating we come to understand and comprehend the world, not merely as a set of object, artifacts, or creations, but as coherent entities which we come to dwell in and which we make sense of the "jointness" and interconnection of the parts that constitute the whole, both at the explicit level of the object itself and at the tacit level in terms of its social context and relations. It is this level of tacit knowledge, that which is known, embodied and most importantly felt that begins to constitute a basis for a new understanding of learning."^{11:7-8}

These insights are profoundly ecological in the way, through making, humans connect and deeply relate their purposes, values, contexts, practices, tools, materials and environment and these become apparent in both the #creativeHE conversation that launched our exploration and the articles and narratives that are shared in this issue.

Place making

If making is integral to being human then it must be an important part of our everyday living: just reflect on how many different things you make in a day. We make, remake, fix and tinker in personal, work, study and play aspects of our life out of necessity and for pleasure and or a deeper sense of purpose and fulfilment. My daughter is moving into a house that has been neglected for a long time and I have enjoyed painting it, repairing fences, gates and a shed and tidying the garden and laying new turf. It's a sort of remaking what was already there but the combination of physical effort, time and a bit of skill, transform the place. Making like this, in a particular place at a particular time help make a particular place. Through my involvement I have developed a relational story and whenever I visit the house in the future I will be reminded of this story.

The idea of making / remaking artefacts in a particular place permeates a number of the narratives in this issue. For example, Chris Tomlinson makes his porridge with an image fashioned from fruit in his kitchen everyday and in my narrative of a geologist making a geological map, he makes his artefact in a particular landscape with particular geological materials and geological history. I am reminded of Margaret Sumerville's idea that, "Place..... occupies the space between grounded materiality and the discursive space of representation"¹².



Learning through Making

Making involves learning and developing not just knowledge about something but also knowing that comes from becoming part of the what we are making. Seymour Papert, who was an MIT professor, developed a theory of learning related to making, called constructivism¹³, based on Piaget's constructivism.¹⁴

"Constructionism shares constructivism's connotation of learning as 'building knowledge structures' irrespective of the circumstances of the learning. It then adds the idea that this happens especially felicitously in a context where the learner is consciously engaged in constructing a public entity, whether it's a sand castle on the beach or a theory of the universe."¹³

Papert's constructionism has, at its heart, a desire not to revise, but to invert the world of curriculum-driven instruction and in the last 10-15 years his ideas have been a catalyst for the "maker movement", starting in America but now a global phenomenon.

"The main tenets of the maker movement, as laid out in Mark Hatch's seminal book, *The Maker Manifesto*, encourage people to; make, share, give, learn, play, participate, support and change. This is a human-centric ethos that embraces technology, but only to augment and supercharge a person's own creative talent rather than be superseded by a machine."¹⁵

Beyond the maker movement, the making of artefacts is a feature of practice in all disciplines. So regardless of whether we embrace the idea of making in our pedagogical practices, making is embedded in the practices of the discipline.

Acknowledgements

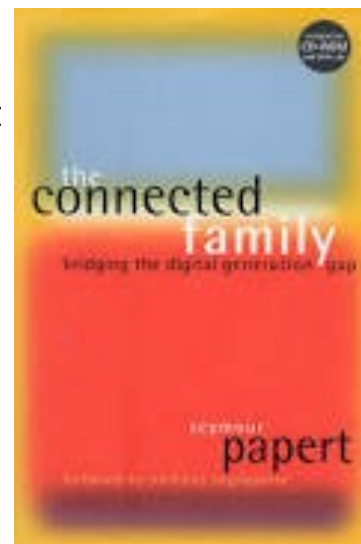
A big thank you to Dr John Rae whose work provided the initial stimulus for the exploration and who co-facilitated the March Creativity in the Making #creativeHE conversation. Thank you also to all the contributors to the conversation and this issue of the magazine.

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Image credit

<http://www.przewodnik-wroclaw.eu/aktualnosci/homo-faber-czyli-narzedzia-dawniej-i-dzis/>



Executive Editor's note, Jenny Willis

We have split CAM12 Creativity in the Making, into two complementary magazines: #CAM12A contains articles produced for, during and subsequently inspired by the Google conversation that took place in March 2018. #CAM12B is a curated synthesis of the conversation itself and includes many of the illustrations and references generated. As always, readers are encouraged to visit the conversation itself, at <https://plus.google.com/communities/110898703741307769041/stream/6938dad2-50b1-45cf-80d6-a759139b74c7?hl=en> to experience the vitality of participants' interaction and view all of the unedited material.

Thank you to all who have taken part in this fascinating discussion. If you would like to join in the conversation, it is still continuing.

Material Thinking: the intellectual adventures of making

John Rae



John is a Senior Lecturer and Associate Head in the School of Biomedical Sciences, Charles Sturt University, in NSW, Australia. He teaches organisational studies in undergraduate programs and health service management in postgraduate programs. John uses arts-based research, applying that methodology to his main topic of investigation – organisational creativity.

The notion of thinking ‘materially’ is reflected in the title of a wonderful book by Paul Carter called *Material thinking: The theory and practice of creative research*. Carter writes about the ‘intellectual adventure peculiar to the making process’^{1:xi} which is similar to a term Cameron Tonkinwise used: ‘makingly knowing’². So, here we are ready to start making – to go on an adventure about knowing. The nice thing about this of course is that we are doing it together so we might imagine, or even expect, that our knowing will be expanded as we share our perspectives with each other.

The conversation that we are having here conceptualises making as a relational activity deeply connected to our lives – we are thinking *of* making not just *about* it. Together, we are entering the unknown and hopefully) moving towards what will become known³, which is different from intensifying what we already (believe that we) know. Such is the nature of making, be that making craft, a story, art, something from the digital world, or even porridge⁴. We will develop local (contextual) knowledge and knowledge about ourselves and probably be less concerned about generalisability.

I look forward to my own making but before I get to that I want to acknowledge at least some of what I have made previously. I think this acknowledgement is important, possibly more so than for other forms of knowing. Material thinking resists closure. Indeed, making is just as likely to generate the next idea.

Sorting through my electronic files of text and images over the past few years I identified a painting, or perhaps it would more appropriately be called a ‘sketch’, that I completed a few years ago. What I was concerned with was getting some raw thoughts down – not too much more.

I was exploring Carter’s notion of ‘material thinking’ and trying to better understand creativity. My initial mental image for the sketch was a folding together of art and knowing. I allowed the watercolour to make fine tracks across the paper, breaking a corner of the paper into folds. I wrote the word ‘of’ in black paint on the paper, trying to think *of* creativity rather than *about* it, and external to it. These marks, and the negative spaces they made, or the ‘pattern made of holes’, as Carter would probably call it, told me what to do next, and how to respond to achieve a visual and intellectual satisfaction, which I usually interpret as ‘balance’. I wondered what would emerge next and searched for clues. Familiar shapes began to appear; shapes from earlier paintings, to which I had attached meaning. I gave them a nudge, wondering about their associations. One shape was the letter ‘C’, which had a particular meaning to me through earlier work on metaphor and what I refer to as the ‘sea of creativity’ metaphor. A participant of an earlier research project came to life too – his black rimmed glasses making him easily recognisable. In this way, the sketch had begun as a social relation^{1:10} – the relativity of collaborators and artefacts over time.



Carter might say that I was working at an ‘unfulfilled relation’^{5:21}, though I sense my sketches to be more ‘a structure for reinventing human relations’^{1:10}, where the discourse ‘provided the testing ground of new ideas’^{5:19}. I say this because I had not previously placed the ‘C’ (of creativity) against an image of, in fact in the face of, another person.



Referring to Walter Skeat, Carter considers that art has ‘a flow in two directions, for the painter can work on the discursive material that comes to him, can elaborate it, transform it through labour, and return it to the social domain as an alteration of or revision of society’s discursive field’^{1:10}. Put in a slightly different way, invention is a double movement of ‘.... decontextualisation in which the found elements are rendered strange, and of recontextualisation, in which new families of association and structures of meaning are established’^{5:15-16}. My sketches – and this narrative – might even be considered an artefact of this reconceptualisation being returned.

A relativity also exists between artist (myself) and the materials that I used. Following Blanchard, Carter points out that ‘a homology must exist

between matter and mind, between the qualities of the material to be worked and the creative disposition of the artist who selects and works it’^{1:186}. However, ‘the malleable material is subservient to the dream of the artist; it is the artist’s fantasy that matter serves’^{1:186}. It is in this recording of process, as I am doing here, that takes us, as we have said, beyond simply writing *about* art, and more about writing *of* creativity.

I interpret writing *about*, say creativity, as being ‘parasitic’ and *of* as being ‘coeval’ – the difference between locating yourself, as maker, writer or artist, external to, or within, the artefact (and its production). To use Carter’s words again, and to continue to take on this ‘about/of’ tension: ‘The process of making the work becomes inseparable from what is produced’. In painting, for example, control is passed over to the paint⁶, in a ‘transactional and responsive, action/reaction: I do/it does’ fashion. ‘This occurs even when the outcome is unknowable, writes Tonkinwise, who describes a similar process, where ‘each next move in the making seems to come of its own accord, with a strong, perhaps even clear, purpose’, akin to Csikszentmihalyi’s notion of flow perhaps. For me, the character of marks on the paper informed the action of my loader brush, and the location of the next mark, fuelled, I believe, by a process aptly described by Roche: ‘There is a sense of emergence or revealing that occurs outside of myself as the work develops’⁶ in a practice of material thinking’^{7:1} where the practice is an epistemological act’^{8:2}.

Making is also inseparable, according to Carter^{1:4} at least, from a prerequisite⁹ of non-linear discourse of collaboration – like ‘a lover’s readiness to be plastically moulded by the other’s (intellectual) desire’^{1:XIII}. As beautiful as this simile is as a description of collaboration, it does require a little scrutiny. Surely there is much room for movement between Carter’s intimate depiction and Tonkinwise’s more removed and implicit take on collaboration:

‘No expertise is solo. If acts are not explicitly collaborative, they will nonetheless tend to involve negotiations with suppliers, sub-contractors, sellers. Even if conducted alone, the recipients of what is being expertly done will be in mind’².

Vaughan’s perspective contributes to this discussion too: ‘I am concerned with the individual, their experiences, and their sense of placed self’^{7:1}. Vaughan does not disregard the importance of collaboration but extends it to the notion of the individual relative to place – to the ‘space or location of material thinking’^{7:2}. She elucidates: ‘I argue that the practice of making, the materialising of ideas through materials and processes, is a process of place-making’^{7:2}. And the power of place, according to Margaret Somerville, is that it connects the local and the global.

Without an intimate knowledge of local places that we love there is no beginning point. Without a concept of the local, action is not possible. However, under conditions of global contemporaneity, it is no longer possible to consider local problems, such as a drought that affects every local area in Australia in different and specific ways, as independent of global issues⁹.

This takes me back to my sketches and to where it was produced, amidst the security of my studio, a place of ‘intellectual desire’ fuelled by the references listed at the end of this article, the art galleries that I have visited, my interaction with the internet, and of course, much more. These global influences have imbued the place where I made my sketches, and getting back to Vaughan^{7:2}, my sketches have, in turn, helped to make that place.

To continue with our emphasis on prepositions, Vaughan has introduced the relatedness of making *in* and *of* a place, say a landscape, as a form of collaboration in material thinking. This opens the discussion to other possibilities of collaborations and productive relativity in material thinking which might include the intellectual space, or adventures, between maker, and in my case, the materials I use. The way that wax softens in my hand as I think, or in the making of my sketches, the movement of watered down paint that I allowed to make tracks freely across the paper to form folds, are evocative events – events that I work *with*. In fact, these events, when

they emerge or are manufactured, have an air of significance, sometimes equal, even if only momentarily, to that of a deep conversation. Barbara Bolt, taking her lead from Heidegger, makes the point that: 'in the artistic process, objects have agency and it is through the establishing conjunctions with other contributing elements in the art that humans are co-responsible for letting art emerge'^{11:1} - this occurs collaboratively as a 'co-emergence'^{11:3} where 'the outcome cannot be known in advance'^{11:3}

These collaborations could be considered at least equal to those between 'material thinkers'^{7:2} and might be extended even further, conceptually, to include memory. Memory is drawn upon in creative practice. An 'artful scholar' might have in mind a recent article, or a piece of writing that is underway, or the transcription or tone of an interview, and work 'in collaboration', or in productive relativity, with them: 'To make something new is to recall something lost through a concomitant mode of production'^{1:183-4}. To (re)member, as Carter points out, where 'member' is derived from the word 'limb', is to use 'memory as a material process of putting back together scattered pieces'^{1:195} to produce, say, a 'body' of work. This, says Carter, is remembering 'beyond nostalgia'^{1:5} where, recalling Carter's emphasis on collaboration, the accumulated re-assemblage of memories leads to something new - local invention'^{1:5}. This would be an appropriate explanation of how images from earlier paintings re-emerged to make my sketches. And here another bridge usefully connects Carter's notion of material thinking and Somerville's description of emergence, as part of her research methodology that she calls 'postmodern emergence'. Somerville describes researchers 'becoming' in their research so as to be open to emergence and in turn by '*opening the mind, expansion, seeking to know the unknown, being uncertain; not proving, but wondering* [original emphasis]' ^{9:228}. Emergence here is 'a point of transformation'^{9:228} which arises out of an undoing of preconceptions^{9:230}, where complex patterns emerge. Somerville writes: 'as a trickle in my brain and gathers other images as it goes'^{9:231}, and where 'these images want to develop into forms'^{9:231}. The images that Somerville refers to are memories, and in the case of my sketches, they are of conversations, past paintings, and the events that lead up to them, all the other elements that formed the place of production of my sketches, and of course technique.

For artful scholarship, 'Technique is necessary, but in the transformation referred to able, it falls away'^{5:16} and can be considered, if we take Katy Macleod's^{12:1} line, to be replaced by writing that is 'indissolubly connected to the research art'^{12:1}. For Macleod: 'The written text is in the form of a highly reflexive address to [the artwork]' ^{12:3} which I hope is, at least to some extent, demonstrated here. Artistic technique, correctly located, is a means to an end, a connection between productive relativity and its outcomes.

To recapitulate, an examination of the outcome of an artefact, say of a sculpture, noting its graceful line and beautiful patina, is an inquiry *about* art or creativity, and an inquiry that pays full attention to say the sculpting processes, is an inquiry *of* art or creativity. Carter likens this notion to that of 'becoming' (compared to 'being'), and indeed this seems to fit perfectly with the practice of research where: *becoming-other* is a 'condition for generating new knowledge'^{9:234}. This, through the productive relativity of place, memories and also the materials of art, which according to Carter^{5:19} are themselves in a state of becoming is material thinking. Material thinking is the 'discourse of creative research'^{1:9}, 'the supplement of matter that haunts communication'^{5:15}, 'what happens when matter stands in-between the collaborators supplying the discursive situation of their work.'^{5:19}, where invention '... is located neither after nor before the process but in the performance itself'^{5:19}. And what^{1:13} we are left with from creative research is not 'simplification and closure', or 'a 'discovery' that can be generalised or patented'^{1:13}. Rather, we have a localised practice'^{1:185}, a conceptual advance mediated materially^{5:16}. In this light, one that illuminates the views of Bacon, outcomes of creative research are: '... offcuts of infinity. Bunching perceptions or grouping phenomena in new ways that are memorable, they provide the 'prenotion' that enables mediation between the immediately to hand (or local) and the otherwise ungraspable (the global) - the activity of material thinking'^{1:184}.

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Making Porridge: Turning a daily habit into an opportunity for creative self-expression and a giving to the world

Chris Tomlinson interviewed by Norman Jackson



Starting my day with a bowl porridge has never really appealed to me, especially as a way of starting my day, but after visiting Chris Tomlinson's, a day without porridge Instagram page¹, I can better appreciate the beauty and meanings in a bowl of porridge. Chris, who just happens to be my brother in law, is a busy Norfolk Vet. I have visited him on a number of occasions and one of the things I associate with him is a 'hearty breakfast'. An avid consumer of porridge for many years a large breakfast bowl sets him up for the day especially if he adds a bit of fruit to it. But what had been a daily routine was transformed 8 months ago, when a member of the family suggested he should be more adventurous with his porridge.

Chris picks up the story...

I've been eating porridge every day for three or four years, I can't remember when it all started. Now porridge by itself is not very appealing so you try out different things to put on the porridge, you can have syrup, you can have jam, you can have fruit, you can have frozen fruit, you can have dried fruit. As I chopped up the fruit I started to make patterns which were quite satisfying to make. So I developed the habit of putting different things on my porridge. Then last summer my daughter-in-law said, "You should be posting this on Instagram", partly tongue in cheek I think just to see what would happen.



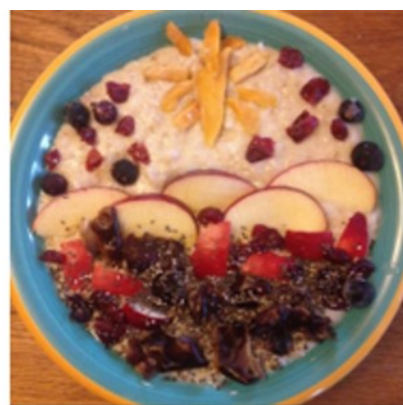
So she set me up an Instagram account and I started experimenting, arranging different things on my porridge and thinking about different aspects of life at the same time. It's just a sort of- whatever comes to my mind, I pop on my porridge for that day.

The other day we went and saw the snowdrops at Walsingham Abbey so I did a design of the snowdrop.

Norman: I really liked that one.



Chris: Around Christmas time I did some reflections on the nativity story with different scenes from it. There was a cow, there was a sheep, there was a duck, there was a camel (left below) there were some wise men (middle below) there was a shepherd and nativity scenes.





Another one I did was to commemorate holocaust day with a candle and a circle of treacle.

adaywithoutporridge Holocaust day.
#remembering

oliverssailingholidays Fab one!

emmieroset Wow. Thanks for reminding us.
Beautiful picture x

Norman: So making a picture or design on your porridge is fairly spontaneous, it's something that you only begin to think about as you are making your porridge.

Chris: Yes, I would say so. Very rarely do I spend a lot of time thinking about it. I normally get the porridge in the bowl. It's cooked in the microwave, it takes 15 minutes to cook in the microwave. I'm getting the kids up and ready. I'm cooking their breakfast, and then I get the porridge in the bowl, it's all being cooked in the microwave and stood to just to make it more smooth, and then I get- what fruits are available and think "What shall I do today?" Yesterday we went to see the seals at Horsey Gap. I thought, "Well, I'll put a seal on made out of prunes." It wasn't the best seal but it was the fact I'd tried that mattered.



Other times I think, "Can't think of anything, I'll just do a pattern." I'll do a circular pattern of some sort and it just whatever comes to mind with what I have ready to hand.



adaywithoutporridge The accountant's meeting! Food for the day! #beansinarow #lookingtothefuture #blueskythinking #nortonsdairy #porridge #moorescarrott



adaywithoutporridge Plums pears and porridge! #pears #plums #porridgepower #autumn



adaywithoutporridge Fruit flower! #porridge #nortonsdairy #citrusforwinter daverogers110 Go Chris we want to see your creations on <https://showusyour oats.quaker.co.uk>

Norman: It sounds as if there is a real commitment that every day you'll have to do something, it's not an option not- to have a design on your bowl of porridge at the end of the making process.

Chris: It's kind of fun to be feeding pictures of my porridge to people on Facebook and Instagram, "This is my porridge for today." You get the feedback from people and it tells you it brings a smile on people's faces and they enjoy seeing what I have done with my porridge, it's like a little feature in their life.

Norman: That explains your motivations for sustaining your commitment. You challenge yourself to come up with a design but you also do it for other people.

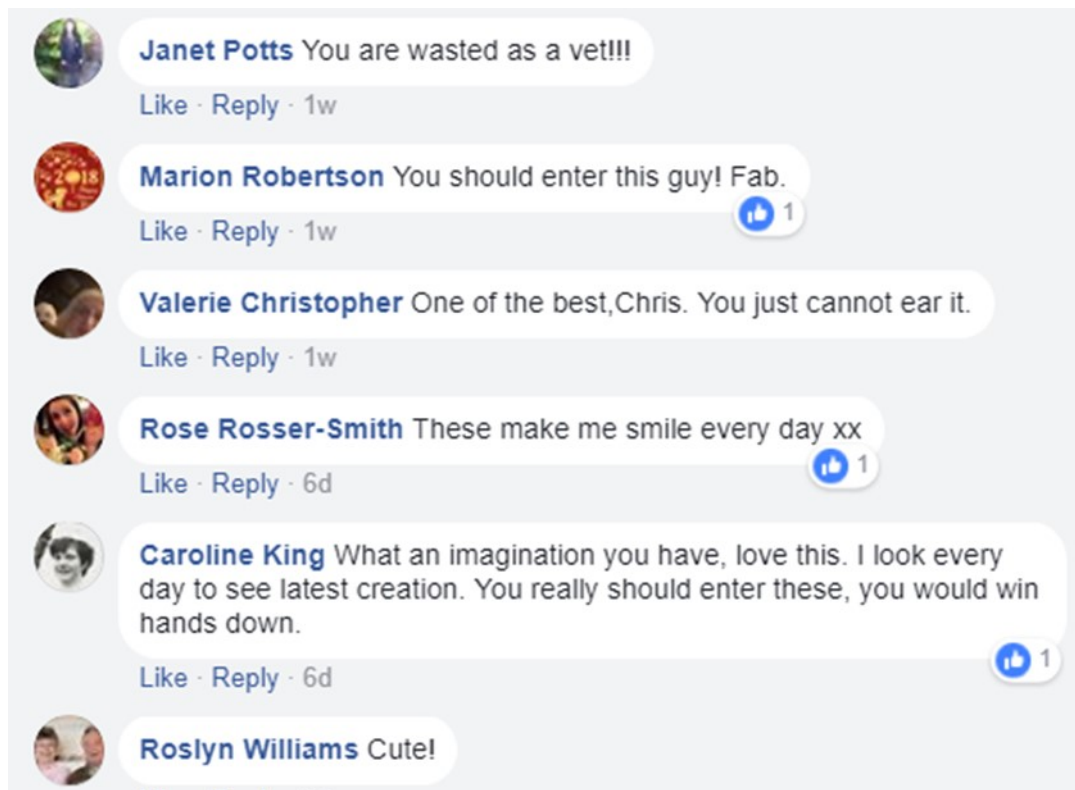
Chris: Yes, definitely, if it didn't engage with other people, I don't think I'd have the same energy to be doing a bowl of porridge with some pattern on it every day, I'd just throw it in, and then eat it. Because people enjoy it, I enjoy it doing it with them really. It's a shared experience. I'm a great believer that often art should be a creative environment between the artist and the people. There should be a kind of feedback or rapport going on, which I feel happens with my veterinary work as well.



adaywithoutporridge Tax return sent!! Happiness 😊 #porridge #persistence #diggingin #nortonsdairy #anpleaday

It's an ongoing conversation between myself and my clients and I find that with my Facebook friends as well. This conversation and somebody's, "Oh, I really like that one" or, "That was a bit rubbish." You just enjoy having this conversation going on. Some people said, "I really liked your bowl of porridge because most things on Facebook really make me sad but this makes me happy." You think, "Nice to be able to put a little- something into people's lives," as simple as the bowl of porridge with a pattern on the front.

Typical Facebook Comments



Norman: Now you are bringing in the fact that technology enables you to share and communicate your little creation. Without that technology, you could not do it?

Chris: Exactly. Before things like Facebook and Instagram you were very limited. You wouldn't do it. You would be much more limited and only the immediate family would see it and they would say - "Well, that's all right" and you'd think "well why should I bother."

Also it's nice to let people to see another side of me. I've got quite a few clients who like to see my post and my Facebook friends and family and, "what I've done with my porridge today" gives them a little fun in the office at work.

Norman: Have you drawn on the feedback in anyway? Have people's comments inspired new designs? Have you got ideas from people who've been commenting on your porridges?

Chris: No, but I think what I've realised is people like quite clear lines and that's what I find on 'porridge art'. You've to have quite clear lines. If it's all blurry, it doesn't stand out. People can't understand it. While if you have quite definite patterns, then people can see it and it registers with them.

Norman: What is porridge art?

Chris: What is porridge art? Porridge art is putting up a pattern on top of your porridge which engages with people either because they think it's pretty or it reminds them of something or it gives them a thought. I put a 35 for my wedding anniversary last week, and then on valentines, it was a heart. It was just playing around with ideas, visual ideas I suppose.

Norman: When you say porridge art, does that mean there's a community of porridge artists?

Chris: There are other people who do patterns on their porridge as well and I found that on Instagram, which is kind of fun. So I follow a few people who do patterns on their porridge every day as well as I do.



adaywithoutporridge Wedding Anniversary
#35years #shedrivesmecrazy
#couldntbehappier #couldntbewithouter #
moreadventuresbeckon #showusyouroats

Norman: So there, again, the medium, the technology helps you connect to a community of people who think and act like you do with your porridge.

Chris: Exactly. The interesting thing is Quaker Oats have spotted this and done a competition called “Show us your oats” for people to send in photos of what they put on their porridge and how it looks pretty. I’ve had a go in it, but it really hasn’t affected much what I do because I enjoy doing it. Though there’s a £10,000 prize, that doesn’t really alter the way I do my decoration on the porridge.

Norman: You’ve been doing this for about 8 months and you’ve now made over 200 bowls of decorated porridge. So what have you learnt from this whole process about yourself?

Chris: What I’ve learnt about myself? That I can be more creative than I realize and that people enjoy seeing it. So that’s essentially -- people like seeing another part of me. If you’re prepared to put it out there, you do develop and improve techniques with time. It’s amazing what you can put on a bowl of porridge to tell a story, maybe one snap shot over two or three days. It’s just fun watching how the story unfolds.

Norman: One final question, in the context of your experience of making porridge art, what does creativity mean to you?

Creativity is expressing something about yourself in your daily life. so its not doing something that everybody else does in the same way as everyone else does it, but doing something which shows something of your personality.

Chris’ magnificent curated collection of 216 Instagram porridge posts (25/02/18)



Making porridge - a project for personal growth

Anthropologist Tim Ingold offers two perspectives on the idea and process of making namely³: *making as a project* ‘we start with an idea in mind, of what we want to achieve, and with a supply of the raw material needed to achieve it. And it is to finish at the moment when the material has taken on the intended form’, or *making...as a process of growth*, ‘the maker from the outset [is] a participant amongst a world of active materials. These materials are what he has to work with, and in the process of making he ‘joins forces’ with them, bringing them together or splitting them apart, synthesising and distilling, in anticipation of what might emerge.’

The way Chris talks about his making, suggests that both of these ideas are in play. Clearly, the repetition of making a certain thing (a bowl of porridge containing a picture of design), and communicating the results via Instagram and facebook is a personal project. There is a daily commitment to the process of making, and in his mind as he gets up every day, there is the idea that he will make something with his porridge but when he starts his daily routine that something has not yet been defined. But once he begins to make his porridge he enters a world in which his imagination can grow as he starts to engage with the materials available to him. These include the raw ingredients of oats, milk, fruit and other toppings he uses, and the props (like photographs, flowers, candles, balloons) he displays near his porridge. But they also include the events, situations, incidents and circumstances in his life and the relationships he has with people and animals, his work, his beliefs and many other things in his life.

“and then I get- what fruits are available and think “What shall I do today?” Yesterday we went to see the seals at Horsey Gap. I thought, “Well, I’ll put a seal on made out of prunes.” It wasn’t the best seal but it was the fact I’d tried that mattered.

Other times I think, “Can’t think of anything, I’ll just do a pattern.” I’ll do a circular pattern of some sort and it just whatever comes to mind with what I have ready to hand.”

Using anthropologist Tim Ingold’s words, ‘even if the maker has a form in mind, it is not this form that creates the work. It is the engagement with materials....’ In Chris’ case the materials of his life, wonderfully illustrated in these two Facebook posts on March 2nd include incidents and experiences that constitute his everyday doings.



Facebook: March 2nd This was yesterday trying to dig myself out of a snowdrift at Hainford!



Porridge art he posted on March 2nd. ‘Gratitude to 4 wheel drive getting me to work today!’

Technology as a material

Chris makes good use of technology - mobile phone and social media like Instagram and Facebook, in the curation and sharing of his making. As an active creator of artistic artefacts he makes the point that art as a phenomenon involves interaction between the ‘maker’ of the art and the person who is receiving, perceiving and responding to the artefact. Social media facilitates this interaction and allows for conversation and the sharing of meanings between the art maker and giver and the receiver. Without this mediating tool how could Chris ever know what people think of what he has made. The appreciative feedback he receives, especially when people say it puts a smile on their face, is the extrinsic motivation he needs to sustain his commitment and build his confidence to push himself a little further. It must also put a smile on Chris’ face as well... when he says ‘it’s fun’, he means it.



Chris Making Porridge

Chris is my brother in law and a few weeks after I interviewed him on skype, we had to visit him on a family related matter, so I took the opportunity to make a video recording of him making his porridge.

He is a natural presenter and I joked that he could do a TV series called ‘Chris in the Kitchen. The 8min video reveals how he goes about making his porridge and it shows how he works with the materials.

<https://www.youtube.com/watch?v=ytFtrgZT9qU&t=1s>

Towards an ecological view of making porridge with meaning

Chris provides a lovely illustration of how, with a bit of effort and commitment, we can transform a daily routine like *making a bowl of porridge* requiring little imagination into a vehicle for imagination and creativity. The porridge has become his medium for self-expression and the pictures and designs he creates cause him to reflect on his own beliefs, people, events and other circumstances in his life. In this way he gives a humble bowl of porridge personal meaning.

Making is connecting because you have to connect things together (materials, ideas, or both) to make something new; Making is connecting because acts of creativity usually involve, at some point, a social dimension and connect us with other people; And making is connecting because through making things and sharing them in the world, we increase our engagement and connection with our social and physical environments.^{14,2}

These propositions are all relevant and valid for Chris' story. His porridge art connects materials, ideas, beliefs and life events that mean something to him to enhance the meaning of an ordinary bowl of porridge. By photographing and posting his artefact he shares his designs and meaning making with the world via Instagram and Facebook and friends and family who follow him are able to enjoy the fruits of his work and give him feedback on what he has produced. Knowing that others appreciate his efforts is a significant factor in motivating him to sustain his creative project. While the topics he chooses to represent in his porridge art clearly show that he is using the opportunity to engage with his own life in a novel, playful and sometimes reflective way.

After watching the video of Chris making porridge on Mother's Day, Joy Witton offered the following perspective,

It's more about gift-giving than representing or reproducing I think..... - this gift giving imagines the mothers who are the recipients of the gift, and - as Chris says - honours, remembers and celebrates mothers and mothers' love - the original gift givers (of life, food and love). His creativity produces a gift which is a return of that original gift..... he 'paints' with porridge because it is such a right symbol of nourishment! (Wonderful porridge, made with raw milk which lasts you through an entire morning - I wanted to eat some!).

Tim Ingold's idea that an artefact is both the product of our thinking and skill, and the materials themselves influence our thinking as we work with them and discover their constraints and possibilities, is an ecological way of visualizing the creative process. This way of understanding making is consistent with Carl Rogers⁵ conception of a creative process 'the emergence in action of a novel relational product growing out of the uniqueness of the individual on the one hand, and the materials, events, or circumstances of their life'.

The explanation given by Chris of what being creative meant to him aligns well to this ecological concept of creativity as being an act of self-expression that is a characteristic of the uniqueness in everyone. In his own words, 'creativity is expressing something about yourself in your daily life.. so its not doing something that everybody else does in the same way as everyone else does it, but doing something which shows something of your personality.' In making his designs he draws on the materials in his cupboard, fridge and freezer, he draws in recent or soon to be events in his life to provide the subjects for his imagination and designs which are meaningful to him and to the people who know him.

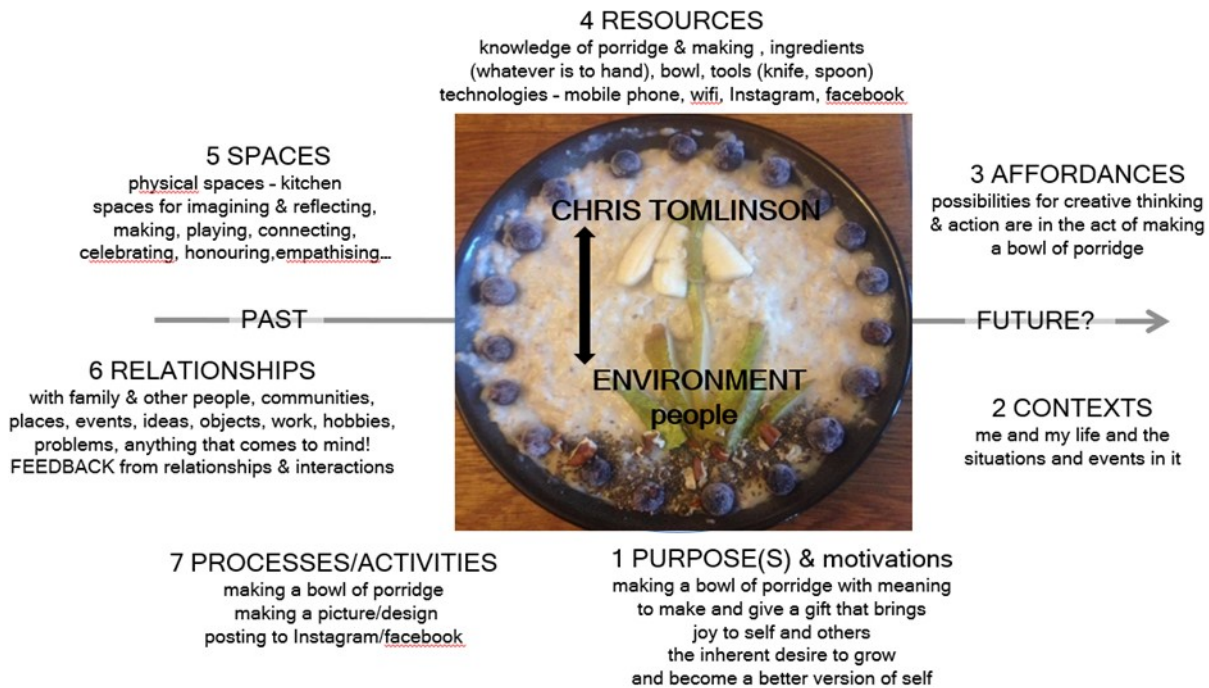
Another thing that struck me was that in making this daily commitment Chris was, in a small way, documenting moments and events in his life. I have never thought of the idea of a 'porridge diary' before but that's what his curated collection is. Thanks to the curatorial capacity of Instagram, Chris has created a diary in porridge designs, pictures and captions. Having collated his designs it also struck me that his collection makes a wonderful visual artefact with aesthetic appeal in its own right.



Chris' story also illustrates how technology helps us share our creations with others by posting pictures of what we have made on social media platforms such as Instagram, Facebook and Twitter. In this way social media supports a culture of gift giving. Chris makes the point that art involves an interaction between the 'maker' of the art and the person who is receiving and perceiving the art. Social media facilitates this interaction and allows for conversation and the sharing of meanings between the art maker and giver and the receiver. Without this mediating tool how could Chris ever know what people think of what he has made. The appreciative feedback he receives, especially when people say it puts a smile on their face, is the extrinsic motivation he needs to sustain his commitment and build his confidence to push himself a little further. It must also put a smile on Chris' face as well.. when he says 'it's fun', he means it.

We can use the ecological framework I have developed (Figure 1) to visualize the purpose and motivations, relationships, connections and the making of meaning in Chris' stories.

Figure 1 Ecology of practice framework⁶ - a heuristic to aid ecological understanding in what is involved in a creative act



In her new book *'Fostering Imagination in Higher Education'*.⁷ Joy Whitton draws on the philosophical work of Paul Ricoeur¹⁰ to distinguish between reproductive and productive imagination.

"Ricoeur draws a distinction between 'reproductive' imagination, which relies on memory and mimesis, and 'productive' imagination, which is generative. He asserts there are two main types of 'reproductive' imagination: the first refers to the way we bring common objects or experiences to the 'mind's eye' in the form of an image...The second refers to material representations whose function is to somehow copy or 'take the place of' the things they represent (e.g., photographs, portraits, drawings, diagrams, and maps)." ⁷ citing ⁸

I invited her to comment on how Chris' porridge making might be interpreted through Ricoeur:

I think in Ricoeur's terms the 'reproductive' imagination borrows from memory in reproducing the gift of love which nourishes the soul. But (and I'm thinking aloud here) maybe it's productive (imagination) in that porridge is the material symbol of that relation to mothering work, but a pale fictional version - it took time and attention to detail to make his beautiful porridge but the performance plays with, and is under no illusion that, it imperfectly represents that gift. The image of the porridge schematises well I think! - the relations between the gift giver, the gift recipient, and what is given.

Award winning photographer Dewitt Jones talks about personal creativity as 'seeing the extraordinary in the ordinary' and Chris' story seems to be an excellent example of seeing the possibilities in a humble bowl of porridge and everyday life to use his creativity to create a gift that honours and celebrates the important people, relationships, incidents and events in his life, and share his gift with the world.

Acknowledgement

I am very grateful to Chris Tomlinson for sharing his story and his creativity, and to Joy Whitton, Jenny Willis and Chrissi Nerantzi for their observations and comments on the video of Chris making his porridge.

Sources

- 1 Chris Tomlinson 'Day without porridge' Instagram page <https://www.instagram.com/adaywithoutporridge/?hl=en>
- 2 Making Porridge with Meaning <https://www.youtube.com/watch?v=ytFtrgZT9qU>
- 3 Ingold, T. (2013) *Making: Anthropology, archaeology, art and architecture* p20-22
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- 5 Rogers, C.R., (1960) *On becoming a person*. Boston: Houghton Mifflin
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- 7 Whitton, J. (2018) *Fostering Imagination in Higher Education* Routledge
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Sea of Creativity: A metaphor for creativity as practice

John Rae

Introduction

The dominant conceptualisation of creativity has been challenged over recent years and this has resulted in an enrichment of the creativity literature. For example, Charlotte Doyle^{1:51-9} wrote about the 'dimensions' of creativity, arguing that this is different from the typical categorisation of creativity into hierarchies (such as was proposed by Dean Simonton². A dimensional approach treats creative activity as, rather than adhering to, say, universal principles, and it moves away from binary constructs (e.g. Big-C versus little-c creativity, individual versus group creativity, etc.) to a position that is more open-ended (e.g. magnitude of recognition, number of co-creators). David Gauntlett^{3:76} adds a more affective notion of what is often termed 'everyday' creativity than has been described previously, stressing that creativity 'is a process which evokes a feeling of joy'. Reports such as these have the potential to provide more expansive conceptual frameworks for being creative, or 'doing' creativity.

The Creativity in Practice project is concerned with exploring and understanding what practice means in different domains and how creativity features in particular practices. From a research perspective, I am interested in how creativity emerges within organisations through practice, and I have developed a technique for exploring this. When I interview someone who has experience or expertise related to my topic, I make art in response to that interview, and then take the completed artwork back to the research participant to continue the conversation, that is, to 'dig deeper' than what I would otherwise be able to do. An example of my practice and an ecological interpretation of this particular practice is provided at the end of this article. In this contribution to the Creativity in Practice project I want to examine the metaphor I am using to explore creativity as practice in health organisations.

From boundary, to organism, to 'sea of creativity'

Through her use of metaphor, Seana Moran^{4:1-22} adds to the debate about how to think differently about creativity, distinguishing between her *boundary* metaphor and her *organism* metaphors of creativity. This work opens the way for a deeper thinking, where privileged meanings associated with creativity are contested, which in turn creates a springboard for newer ideas about creativity.

Moran's boundary metaphor, arguably the dominant metaphor in creativity scholarship, conceptualises creativity as 'crossing, breaking, or pushing out a boundary'^{4:2} thus reaching something that is typically described as novel and valuable⁵⁻¹⁰. Moran's organism metaphor, on the other hand, points in a different direction. It prompts thinking not so much about creativity being 'achieved', but something more akin to what has been described by Mihaly Csikszentmihalyi,^{11:27-36} where the system itself becomes creative, and where 'creator and created' are not separated^{4:1}. This organism metaphor creates a new space for thinking about creativity, especially organisational creativity, although it has no (metaphorical) alignment to the magnitude, expanse or uniqueness of organisations like higher education institutions, nor does it address the tensions that typically occur between creativity and the less yielding aspects of a higher education institution – its legal responsibilities, societal expectations, shareholder demands, and mandate to achieve outcomes like work-ready graduates. These are the things that I now explore – through art.

Accepting the advice of Angie Titchen and Debbie Horsfall^{12:219} that art-making could help me access my driving forces, through creative visualisation and self-expression, I made a preliminary drawing. From this emerged a possible metaphor around the nervous system - separation of neuron and muscle, yet connection through neurotransmitters, which, of course, gives rise to the most wonderful bodily movements and performances. Working from this transitional image, a more evocative one emerged that also spoke to 'separation' and 'connection' - waves and the shore - the 'Sea of creativity' (Figure 1).



Figure 1 Sea of creativity

The water colour and pencil representation of what I named the 'Sea of creativity' assists in reconceptualising creativity; and to be clear, it is *organisational* creativity that I have become interested in – the creativity of the health service, school or higher education institution. Of course, some viewers of Figure 1 would expect to see different hues; say shades of blue and aqua, perhaps over a golden wash. The cadmium red seems to suggest an inherent vibrancy - changing, performing, working with the unexpected^{13:266}. The layering of lines and colour highlight complexity and tension.

A steady bank of waves in the top left-hand corner forms the sea and this is translated into lines and energy of different qualities on the beach, located at the bottom right hand corner. A luminous form emerges in the space between the waves and the beach. This is a central and hopefully a pleasing facet of the painting. Sea currents are represented by the darker wave-like lines and marks.

Waves are small movements of water molecules that are caused by winds - omnipresent iterations of activity. The water particles move in a circular motion. They do not travel; only their collective energy travels. Waves *are* the sea, rather than something passing over it. In the same way, 'creativity does not happen at the edge but in the reconfiguration of the centre itself' ^{4:11}. In organisational creativity, it is the organisation itself that is creative (no doubt to varying degrees and at different times); creativity does not merely 'pass over' an organisation.

The beach is a space that is betwixt and between - between waves and shore. As waves connect with the shore their lengths decrease and they become taller; they take on a new form and eventually break. The shore is the less yielding aspect of an organisation. As tension between waves and the shore is played out, often unhurriedly, and at times thunderously, the form of the shore is altered, and the boundary between the sea and the shore shifts ^{14:165}. Those who play on the beach are (metaphorically) 'liminal characters. They have become disconnected from the set of rules which sustained them in the world they have left behind; yet they are not of the world on whose fringes they have been washed up' ^{14:165}. 'Organisational liminality' (a term proposed for organisations that intentionally retain, or are assigned, certain anti-organisational attributes), allows actors to undertake activities that are not always sanctioned by the field. A more universal form of organisational liminality is envisioned here, a time and space within the everyday activities of organisational life, where moments of creative insights are triggered ^{16:484}. According to Ajit Nayak's research ^{17:420}, tensions between self-expression and responding to organisational interests, and between personal morality and organisational ethics, challenge organisations, and managers; they influence social arrangements ^{15:167} and spawn new thinking in organisations. This reminds me of earlier works that highlight the importance of social relationships in creativity ^{18,2,8} and more recently the work of Gauntlett ^{3:2}, who emphasises the significance of 'connecting' and social capital to creativity.

The tension of the beach fluctuates but does not resolve; it is ubiquitous. The shore is always becoming. Each wave is different, and they roll and crash and interact with the shore in ways that are unpredictable. This is the condition of organisational creativity - ideas and actions are formed and (re)formed, domains are (trans)formed ^{11:28}, 'rules emerge retrospectively' ^{19:7}, and organisations such as higher education institutions evolve.

The liminal beach is where organisations transform and evolve. In organisations, tensions between waves and the shore get played out as organisations resolve differences between their creative instincts and the less yielding, often policy- and outcomes-driven, qualities. Creative leaders 'use the power inherent in these dualities to invent new assumptions and create new models geared at the ever-changing world' ^{20:2}

Like the waves that strike the shore: 'A collaborative emergent is not a final end product, like a creative product ... it is a constantly changing ephemeral property of the interaction, which in turn influences the emergent processes that are generating it' ²¹. Keith Sawyer moves this discussion to organisational evolution: 'we could think of the emergent final state as the accumulation of hundreds or thousands of tiny emergent steps - each small change in connection weights is a tiny bit of emergent novelty' ^{21:466}. Ralph Stacey ^{22:40} then takes this notion to another level - local and global emergence, and the relationship between these in organisational life. The starting point for this perspective is that organisations are 'not one monolithic identity, one social object, but many linked ones' ^{22:39} linked through networks, and of course through conversations ^{23:128}. Systems are generalised and idealised around the meaning of the organisation - its values and goals, for instance. These generalisations and idealisations are exhibited as artefacts such as plans or policies, and they serve as 'tools in the communicative interaction and power relating between (organisational) members... and between them and those concerned with its governance' ^{23:39}. But 'generalizations and idealizations only have meaning in the local interactions of all involved in each specific situation' ^{23:39}. Organisation-wide generalisations and idealisations get interpreted locally through local conversations. Not surprisingly, local responses to artefacts (say policy documents) vary, and new generalisations emerge locally. Many local interactions then, in turn, transform global patterns because policy makers, for instance, are reflecting on this. The global influences the local, and the local influences the global - sea currents impact on beaches, and beaches affect sea currents, and also global climate.

Consequences of the sea of creativity metaphor for organisational creativity research

To what extent do, say, organisational leaders, members, sponsors or service partners consider their organisation to be intrinsically creative? I suggest that organisations' success arises, at least in part, because they capitalise on their sea of creativity. We should consider creativity not so much as supplementing existing ways of operating, but rather, an essential force that is integral to an organisation's operations and evolution, where organisations are 'construed as temporarily stabilized event clusters abstracted from a sea of flux and change' ^{17:281}. This essential force ebbs and flows, of course, together with the wind's grip to form waves of different sizes, and as organisations adapt or are exposed to different conditions and changes. What is proposed here, then, is an ontological shift that has the potential to change one's narrative from 'what creates creativity', to 'how to generate conditions in which creativity can flourish' ^{24:30}.

If an evolving organisational creativity is not necessarily a discrete process with an easily observable end product, organisational creativity scholars should cast their net wide and dive deep if they are to understand it. Theoretical frameworks should speak to the temporal rhythm^{25:358} of creativity, and acknowledge complexity and multiplicity of experience. Research methods might include, for example, art and other deeply probing methods.

The sea of creativity metaphor provides a platform for exploring not just the omnipresence of creativity in organisations like higher education institutions, liminality, emergence, and the global nature of organisational creativity, but also the interrelationships between these. What happens to the shore when the frequency of waves decreases, or increases, what of the shore that is more, or less, impervious to waves, or when the shore that is more, or less, exposed to the influence of currents? Triton, the mythological merman, calmed and raised waves by trumpeting on his twisted conch shell - what tools do we have to work with waves, or the shore and tides, and what are their effects? What surprises might emerge from studying the sea of creativity?

A reflection on the Sea of Creativity

I reflect on how universities are unique and complex organisations; there are a great number of faculties, schools, disciplines (domains of knowledge and practice) and environments. Tension quite naturally arise from this multiplicity of contexts and situations, although it should be possible to balance these – to turn them into something productive. One might imagine that it is a person who does this ‘turning’, possibly as a project, and probably with the help of a ‘model’ or a ‘method’, but perhaps there is another answer; perhaps it is the enactment of a *practice* that makes the difference. My thinking is drifting from ideas about a ‘process’ of creativity to a ‘practice’ of creativity. Both these terms imply acting or doing something, but the former has a more mechanistic tone than the later, and supporting this are the numerous models describing the process of creativity, and each has a set of stages, and the componential model of creativity^{5: 357-376} is a commonly cited example of this. The term ‘practice’, however, when one looks even just a little under the surface, has quite a different connotation. A richer meaning becomes apparent from the work of Jeannette Lancaster^{26:119} and her phrase: ‘practices interact with each other to form a field’, which is a notion she borrowed from Theodore Schatzki and co-workers^{27:11}

Practice accounts are joined in the belief that such phenomena as knowledge, meaning, human activity, science, power, language, social institutions, and historical transformation occur within and are aspects of components of the *field of practices*. The field of practices is the total nexus of interconnected human practices.

Whether one considers this ‘field’ to represent the social, as Schatzki^{28:119} did, or a country scene, which I would argue is also a useful metaphor (considering the multiple elements that merge to create the expanse of a field of either sort), it is possible to draw the conclusion that this notion of a practice is richer, more complex, with refreshingly indistinct boundaries, than the term ‘process’. Indeed, the work of Nayak^{29:420-39} and also Eleni Giannopoulou, Linda Gryszkiewicz and Pierre-Jean Barlatier^{30:23-44} drew similar conclusions. With this in mind, I reflect on a sketch relating to creativity that I made some time ago (Figure 2).

Against this sketch, I wrote:

Creativity floats in the Sea of Creativity, often in turmoil, coexisting with other forms, shapes and colours, and bumps against other things with vibrancy and tension.

There is a yellow mark in the painting that resembles a ‘C’ – perhaps the ‘C’ in creativity. The letter ‘C’ (little c, big C and so forth) comes up from time to time in the creativity literature^{31:1-82} Here, however, the letter ‘c’ emerged materially, which is not insignificant if we take Ulmer’s^{32:229} view that writing, which we might extend to painting, or writing in paint, ‘becomes a research into creativity’. Even now I am taken by the association of ‘things’ bumping against each other in the name of creativity and what Stephen Kemmis, Christine Edwards-Groves, Jane Wilkinson and Ian Hardy^{33:36} call ecology of practices, where ‘practices coexist and are connected with one another and are connected with one another in *complexes* of practices ... with local variation ... like different species in an ecosystem’ [original emphasis]. As an illustration these authors use the practice of leadership in schools and associate that with practices concerned with learning, teaching, teacher education, education policy, educational research and evaluation^{33:36-7}. It is possible, then, that in higher education institutions, a practice of creativity will be associated with other practices like analysing, researching, theorising, designing and innovating.

In the organisational setting, creativity must occur *within* a practice, to enliven or even to maintain it, however, a distinctive practice *of* creativity would also seem possible, even probable, when circumstances are favourable.

Figure 2 Creativity bumps up against other things



Conclusion

Metaphors are relevant to creativity scholarship. They nod to paradigm shifts, and these can influence what and how research is conducted. Whilst the sea of creativity metaphor by itself will not, in all likelihood, lead to a paradigm shift, it may add weight to Moran's ^{4:19} intention to: 'forge a rethinking - shaking up knowledge we've been taking for granted'. For higher education, this may open up new spaces for exploration. For example, the breadth and reach of the sea of creativity metaphor frees up creativity to move closer, conceptually, to other constructs such as the learning organisation or to learning ecologies. It may serve as a guide to creativity scholars and practitioners for thinking differently about higher education leadership, performance, culture and change? And if the sea of creativity metaphor provides buoyancy for such ideas, it must continue to swell and recede, be embraced but also challenged, expanded and modified, and be itself under the influence of Triton as he trumpets over it. The so called 'turn' to practice suggests that 'life transpires through human activit[ies]' ^{34:122}, however, putting the work of Nayak aside for a moment, insufficient attention has thus far been given to a practice approach to creativity. A practice approach can usefully depict creativity as integral to the constitution of higher education institutions and involve every person working in these organisations.

Delving into the sea of creativity: A story of my own creativity in practice

I recently participated in the #creativeHE conversation on creativity in practice. A comment about 'ecological ways of seeing our relationship with our environment' made me think about my own research practices and how they relate to the environment, and how environment might relate to my creative practices.

I present a sculpture that I completed just a few days ago. I made it for a research participant whom I interviewed. I was interested in learning how this person led a team to successfully enhance social inclusion for people who are older and have some sort of disability. That's my usual way of conducting research – to interview someone who has experience or expertise related to my topic, make art in response to that interview, and then take the completed artwork back to the research participant to continue the conversation, that is, to 'dig deeper' than what I would otherwise be able to do. I plan to take the sculpture back to my research participant in a few days.

The sculpture complete, and having been prompted by notions of 'ecology', 'practice' and 'creativity', I now reflect on the making of the artwork. The initial cluster of practices – interviewing, listening, recording, analysing, and so forth – were performed within the institutional environments of a community care service and also a university. Other practices were performed at home, a small farm dominated by quite a steep hill. This hill is littered with trees, most of them thriving but a few have died. I often walk up and down the hill and on one occasion I was wondering what to make for my research participant. What emerged – possibly through the convergence of mental images of artworks seen or made myself, and the vision of dead trees – was this sculpture. It is a little hard to pick out the detail but you may notice two figures holding hands. I was thinking about partnership and caring as central themes in achieving social inclusion. Of course, I remain anxious to see what my research participant will have to say.

In making the artwork, I had to fell a tree. I did this in a landscape not unfamiliar to the sound of a chainsaw, or the thud of a tree hitting the ground. The noise that the engraving tool made is not uncommon in my work shed either, nor is the scent of the varnish I applied to the shapes that materialised from the sawn tree trunk, trying as I did, to give the emergent shapes prominence or 'zing'. One may say, then, that I made this artwork through what Stephen Kemmis, Christine Edwards-Groves, Jane Wilkinson and Ian Hardy refer to as an 'ecology of practices'. This ecology comprised the practices of making, sawing, transporting, communicating, engraving, painting, and no doubt more. The practices are living and connected things^{33:36} that were harnessed together^{33:37} and enacted across and influenced by different environments.

In the conversation we were using an example of creativity in practice based on Dewitt Jones'³⁵ ecology for learning, achieving and creating can be applied to this story too. I used this model and it seemed to add direction or flow to the ecology of practices that I have just described. That is, I came to the situation prepared (methodologically and practically) for an imagined future – new knowledge or wisdom. Entering the interview space armed with a recording machine and notes, and then the making place with various tools and skills, and reflecting on my interactions with my research participant, I engaged with the materiality of timber and paint. I responded to uneven surfaces, the marks made naturally as well as those that I made. I watched and responded to lines, shapes and patterns emerge. This process will no-doubt continue as I renew my relationship with the research participant and as others experience and respond to my sculpture.



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Making a Painting: The role of my Imagination

Norman Jackson

Connecting the materials of life

Early in December 2017 my wife announced that we were going to club together to buy ourselves a painting for Christmas. My first thought was, how difficult it was going to be to find something we will both like? My second thought was, I should stop talking about painting something (which I had been doing for years) and actually do it. Another bit of context was that my interest in painting had recently been rekindled as a result of watching some YouTube videos of artist David Hockney painting and following this I had tried to make a digital painting on my garden¹. I went on line and bought a large canvas and stored it in my office as I wanted it to be a surprise. The size of the canvas was determined by a hot air vent on the wall that we wanted to cover up!

But what to paint? I searched for inspiration and remembered a walk we had made in late October when, passing the place where my wife's first husband was buried, we looked back towards the hills behind our house. These hills form a low ridge and there are several chalk quarries in it. I have, through walks with my grandson and a bit of imaginative storytelling, renamed this hill 'Chalk Mountain'. As we looked across the fields to the hills in the late afternoon autumnal light, we both remarked how stunningly beautiful it was. I took several photographs on

my phone. I remembered this moment and the phone photos and decided that this was the scene I wanted to paint.

I watched several video clips on YouTube where artists had painted skies and landscapes with acrylic paints and tried to work out what colours I would need while standing in the shop looking at what was available. Then I purchased some brushes and a set of 6 tubes of acrylic paint in a box. With time running

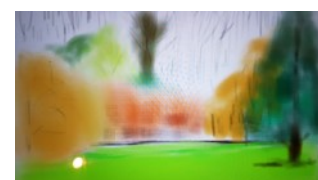
out, this was the week before the Christmas week, I started to paint the scene, or rather my version of the scene. In fact, I revisited the spot where I had taken the photos and took some more photos. The field was no longer ploughed but I was looking for different perspectives on the sky and the hills.



Each day that week I spent a couple of hours in my office painting and trying not to arouse suspicion. It's several decades since I painted anything so I kept it simple and experimented a lot. To make my acrylic paint go further I mixed it with white emulsion paint. A lot of the time I was not happy with the results and the more I painted the more I seemed to get away from what I had hoped to achieve - apart from the sky which was the first thing I painted. I was also worried that my wife wouldn't like it. But gradually, the composition, colours and effects I wanted, or at least that I could live with, began to emerge and I began to feel a bit happier with the result.

Eventually, on Christmas Eve I plucked up courage to show my wife. She had no idea I was doing it and I was relieved and pleasantly surprised that she didn't tell me to start again. She made a few suggestions, including repainting the foreground and suggested the colour that she thought might work better. I wasn't happy either with the foreground so I readily agreed and sure enough it looked better when it was repainted. I was pleased that she had influenced the picture and I think she was pleased I'd taken her advice. That evening we hung it on the wall in the lounge.

Hanging it on the wall became a form of public exhibition as each member of the family encountered it for the first time. And it became the subject of many conversations and a few jokes over Christmas when family and visitors were able to comment on it. Because the scene was familiar everyone was able to create their own interpretations and meanings. Everyone was surprised and generally complementary and this made me feel good about it. In this way it was accepted and assimilated into our life and our home.



Making my artefact

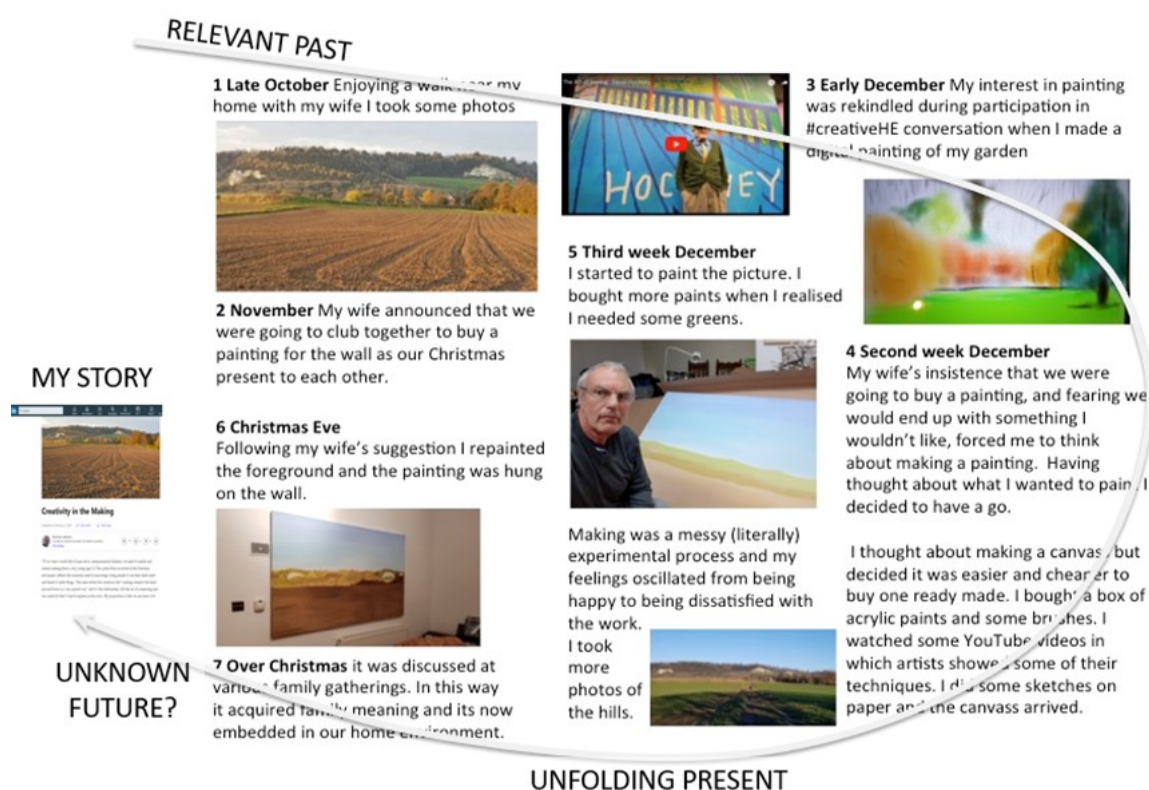
I made a map of the most important events in my painting project (Figure1). The painting is (for me) a novel relational and meaningful product grown in the particular circumstances of my life².

My painting grew out of my relationship with my wife and the initial motivation came from her idea (insistence) that we would buy a painting for the wall for Christmas (an important context). While the inspiration came from an experience we had shared while walking in the landscape we live in: a landscape that was rich in memories for both of us. The view of the hills held multiple meanings for me and my wife and these meanings became incorporated, quite naturally into the painting and into the motivations that led to this particular painting. I did not need to imagine a scene, I can see and experience this scene everyday so my project was one of reproducing something from my memory based on perceptions of my everyday reality.

Another recent circumstance was the fact that I had, through my involvement in the early December #creativeHE discussion on creativity in practice, rekindled my interest in painting. I had watched a number of videos showing artist David Hockney at work which I'd found quite inspiring, and I'd had a go at creating a digital painting of my garden. All these things connected to create the reasons, affordance (opportunity for action) and confidence for me to try to paint a picture to fulfil the need I now had.

The form of the artefact itself was influenced by such things as the size of the vent on the wall, my wife's desires for certain colours (autumnal browns rather than spring of summer greens that I would have preferred), and my need to find a subject that meant something not just to me, but to the whole family, as it was going to become a prominent feature of our home. All these things became connected in my project.

Figure 1 My map of important contexts and circumstances in making my artistic artefact - a process that demonstrates the idea that 'making is connecting'⁽³⁾



Once I had found my subject I felt motivated (inspired describes the feeling) to have a go at painting it. I painted the sky and liked it and this encouraged me to go further. But I didn't like the results of painting the hills and had several goes at it, even changing the shape of the hills and quarries several times. This was my first attempt to paint for many years and I had to do a lot of experimenting mixing colours and using different brushes to get the effects I wanted. It was very much trial and error, on the job learning, rather than applying techniques that had already been mastered.

Painting the picture was more than an act of self-expression as my wife had to like it as well. If there hadn't been the Christmas deadline I probably would have carried on tinkering with it for a while. When my wife did finally see it, her positive reaction gave me confidence to see it through (a negative reaction would have caused me to lose heart). I was able to use her suggestion for repainting the foreground and I think that helped her have some ownership for it. In this way I connected my picture to her appreciation of what would improve the scene.

Making sense of my experience: How did my creativity feature in making this artefact?

I don't think any individual part of my making process was creative: in fact putting paint on the canvas felt very uncreative. Through this reflective process I have come to see my creativity as the way I connected everything so that eventually something whole and quite different to anything I had produced before was brought into existence. I found David Gauntlett's ideas⁽³⁾ on making particularly useful. At the start of his book 'Making is Connecting' he offers three propositions:

Making is connecting because you have to connect things together (materials, ideas, or both) to make something new; Making is connecting because acts of creativity usually involve, at some point, a social dimension and connect us with other people; And making is connecting because through making things and sharing them in the world, we increase our engagement and connection with our social and physical environments. Of course, there will be objections and exceptions to each of these, which we may consider along the way. But that's my basic set of propositions.'^(3:2)

I can see from the map of my process that all three of these propositions are valid. I connected ideas, imagination, emotions, experiences and materials in particular ways and in a particular time frame to produce something new and tangible. I connected to people, in particular my wife, who had shared the same experience of the autumn walk that became the inspiration for my painting and also, inadvertently, became the catalyst for my process of connecting. And through the process of making I engaged more deeply with my physical and social environment and the feelings that my interactions created.

Of course, you can't connect things without perception and imagination (ability to connect things mentally) since seeing that something has the possibility for connection in the first place, either in advance or as the situation presents itself, are important part of this process of making. And, we do not connect random things, there is a process going on all the time where we select and choose things to connect that fit our purpose and our mental models of what we are trying to do. In this way our process of connecting draws together, combines and integrates things that are meaningful in the evolving context of our making. And this process of connecting does not end when we have finished our painting. When we spend time thinking about what we have done by reflecting in a fairly systematic way, our clever mind can see and find even more connections in the process as it tries to make more sense and meaning of the whole, for example by creating a story that joins up all the dots. And as I write this now I can see that this story becomes an extension of the making is connecting process.

We can use technology to assist our imagination. For example, while I was painting I periodically looked at the photograph on my phone to remind myself of the scene and at the same time tap into some nice feelings that helped to motivate me. I was using the technology to connect me back to the moments that were the source of my inspiration for the painting.

But I also had the scene in my mind and I was drawing on the mental images I had which were different to the photo. These mental images were continuously refined as the colours and shapes went onto the canvas and I used what limited skills I had to try to create a picture that I (and I hoped my wife and family) would be happy with. The final painting was a synthesis of my efforts spurred on by my imagination and perhaps creativity lies in this synthesis of all the efforts and imaginings.

Ecology of connecting

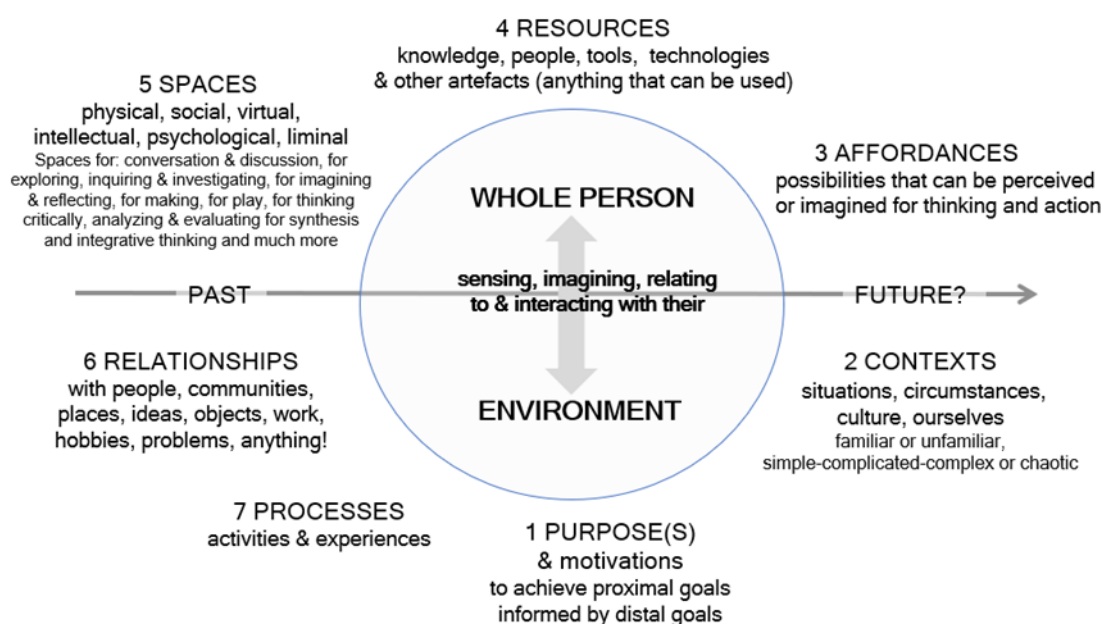
My process of 'making' a painting is a story about connecting many things. The process of connecting is fundamentally a relational and interactional process involving me coming to know what to connect and why to connect it to the things that mattered to me. My ecology for learning⁴ was an ecology for making connections (Figure 2).

So what did my ecology enable me to connect and incorporate into my making project? It involved my purpose, my desire to create this picture in my circumstances and the time frame I had set myself. It involved me connecting contexts including 'me' and 'my life' which included my interests in creativity, and in writing, and the fact that Christmas was looming. It involved me physically, cognitively and emotionally, in relationships and interactions with my wife. It involved me interacting with, sensing and experiencing my physical environment - my home and the landscape in which I live, and the virtual environment (accessing videos that inspired me and showed me some techniques) and music I listened to while painting. It enabled me to find and connect the resources I needed to make my artefact like canvas and paints and specialized tools like paint brushes. It involved me in perceiving the possibilities for productive action (seeing affordance) in the evolving situation, in the landscape and in particular things like the materials and tools I was using and the space for painting that I created.

To make my picture I connected the mental images and the emotions they engendered to the bodily act of painting, “making connects the hand, eye and brain in a very special way”¹ I interacted with the paints and canvas to respond to the imagined scenes in my mind. What emerged was not necessarily what I imagined, it was a trial and error process and I stuck with the colours and shapes I liked and repainted what I didn’t like. The very act of painting was creating something that I gave meaning to - what was left meant something to me. I energized myself by playing loud music (often Max Richter’s Three Worlds) as I painted and I know some of this music created certain feelings or moods so that was another connection in the process.

I also connected my present to aspects of my own past life - for example to my experiences of painting in my youth, and I know that what I had experienced, learnt and achieved would at some point connect to my future. In fact, 6 weeks after the painting was finished I can now demonstrate this as this article is being written in the future as far as the painting is concerned.

Figure 2 An ecology for learning and making something (adapted from Jackson⁴) The framework or model shows key relationships and interactions between the person and their environment. The ecological framework is a heuristic technique to help us imagine some of the complexity involved in acts like learning and making. The labels (1-6) explain an aspect of the ecology but do not say how they interact. This is revealed in the narrative of the action. The components of the ecology do not stand in isolation. They can and do connect, interfere and be incorporated into each other.



This article, and the sense making story it contains, is another artefact connected to my process of making and it illustrates again how important connecting is to creative expression. Writing, especially narrative, brings language into the process of making and language can be used to express and explore complex ideas and to connect ideas and theories to the story of reality I have described.

Through writing I explore my ideas and events and use my imagination and reasoning to bring some sort of order and meaning to their randomness as they are connected to what I already think I know, and to the ideas of others. Through this process of connecting and examining the consequences of what has been connected, I begin to make more sense of complex things - like my experience and my creativity.

There are many definitions of creativity but as a writer I have always had a soft spot for the definition proposed by Dellas and Gaier⁵ who suggest that creativity is the desire and ability to use imagination, insight, intellect [reasoning], feeling and emotion to move an idea from one state to an alternative, previously unexplored state. What this definition doesn’t do is go into how this is achieved which necessarily involves a complex interaction between the person, their past history and an unfolding present in the world that they inhabit and to some extent create for themselves. Through their uniqueness (as an individual, their process and their unique circumstances) they make new connections and bring together previously unrelated ideas, situations and things.

Another way of looking at Dellas and Gaier’s perspective on creativity, is to see the idea of moving an idea from one level of understanding to another, as the passage through liminal space⁶—that transitional space where you are leaving one state behind yet have not fully crossed over to the next. It is the space where transformation occurs as new thresholds of understanding are crossed.

Learning ecologies are inevitably dealing with liminal spaces as we transit from one state of understanding to another. In fact, we might argue that we create an ecology precisely to work with all the uncertainty, perplexity and ambiguity of not knowing in the context of a pursuing a particular purpose/goal, resolving a difficult problem or confusion, meeting a challenge or, in my case, making the most of an opportunity to paint a picture.

As I write this it also strikes me that this narrative is a technology to facilitate the passage of both me as writer (creator) and the reader who is now sharing my thoughts, through the liminal space that is my unfolding story and the ideas it contains, so that once it is written and read, and new meanings are co-created, 'we' have crossed the threshold to a higher state of understanding and awareness.

Through my story I can see that an important part of the relational and interactional process in the making of this picture involves *connecting, combining, integrating ideas to develop a synthesis that did not exist before*. This sums up very nicely what often happens when I sit down and think about an experience such as the one I am describing. The process of crystallising thoughts and feelings in words and connecting the numerous elements of an experience, enables me to gain new or richer perspectives on the way I have interacted with the world and what has resulted from these interactions. The question of 'How do I know what I know until I write or draw it?' is very real to me. Through writing and visualizing through diagrams and models, I connect and perhaps adapt my ideas to the ideas of others, and extend my understanding and my ignorance in the process. Writing for me is my most important process for connecting the ideas of other theorists and I use my own life stories to evaluate their relevance and through this a new awareness emerges.

Writing this article has enabled me to connect to another bit of the jigsaw puzzle that is our creativity, namely the 'mediums' we use to express ourselves⁷. According to Ken Robinson the medium is the means or mode of creative expression. 'If you're doing something creative, you have to be working in a medium'⁸. For an artist the medium is his art - his drawing, painting or other form of expression and it includes the media he uses to create his representations, his sketchbook and tools for sketching and colouring. Or, if he is a digital artist - a computer or digitising pad, scanner and camera or smartphone and software to process and manipulate the images. The medium of the footballer is the game of football he plays and his tools are the ball and the boots he wears. The writer's medium for self-expression is the words he writes with a pen and notebook or a word processor on a laptop. My making project involved me expressing myself first through the medium of painting and then through the medium of writing.

How does imagination feature in this story?

The short answer is that imagination is needed to see into the future. To see, however vague it might be, a sort of vision or mental representation of what might be which we then both 'evaluate' and relate to emotionally. These things then provide the basis for determining whether we will involve ourselves, dedicating time, effort and other costs to turning the vision into reality.

In my unfolding present, as I developed this narrative, I was very fortunate to be given a copy of the manuscript for Joy Whitton's new book '*Fostering Imagination in Higher Education*'.⁹ I was enthralled by the way she had connected theory, practice and her own research and her thinking, expressed in her writing, became a catalyst for my own thinking and writing. (Quite literally I jumped out of bed to begin writing these paragraphs).

In the book she talks about the way imagination is a co-created phenomenon as the ideas that one person shares through language/writing and other means engage the imagination and intellect of another. The creation of narratives that share both the products of and process of imagination, and the interactions brought about by sharing, show the process of co-created meaning in action. Drawing on the philosophical work of Paul Ricoeur¹⁰, she draws attention to the distinction between reproductive and productive imagination.

"Ricoeur draws a distinction between 'reproductive' imagination, which relies on memory and mimesis, and 'productive' imagination, which is generative. He asserts there are two main types of 'reproductive' imagination: the first refers to the way we bring common objects or experiences to the 'mind's eye' in the form of an image...The second refers to material representations whose function is to somehow copy or 'take the place of' the things they represent (e.g., photographs, portraits, drawings, diagrams, and maps)." ⁹ citing 10

I think my painting equates to the use of imagination in the reproductive sense in the form of an image of something that exists, while the map of my process of making and connecting involves the second sense of reproductive imagination.

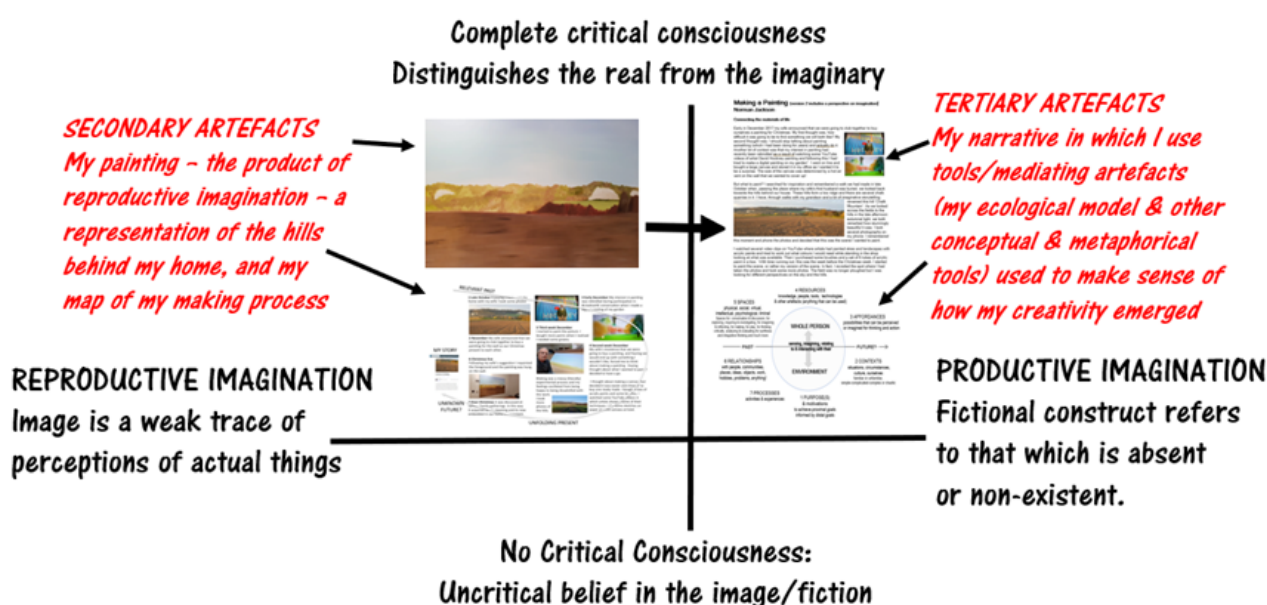
Ricoeur suggests that reproductive forms of imagination tend to be less illuminating in terms of understanding human action, agency, and creativity because they merely reproduce the perceived world. His focus is on 'productive' imagination, embodied in inventions like novels and fables - which are not intended to be straightforward descriptions of the world. Hence, they cannot be categorized as correct or incorrect accounts of reality because they imply a consciousness of the fictiveness of the account.⁹

"[Ricoeur] argues that creating a story is an act of semantic innovation. In narrative, the semantic innovation lies in the inventing of another work of recombination and synthesis. The productive imagination 'grasps together and integrates into one whole and complete story multiple and scattered events, thereby schematizing the intelligible signification attached to the narrative taken as a whole'. 'To understand the story is to understand how and why the successive episodes led to this conclusion, which, far from being foreseeable, must finally be acceptable, as congruent with the episodes brought together by the story'" ⁹ citing 10.

Marx Wartofsky¹¹:cited in 12 proposed a three-level hierarchy of primary, secondary, and tertiary artefacts that connects to Ricoeur's concept of imagination. Primary artefacts are artificial entities created by humans, such as axes and clubs, and which allow them to alter directly the nature of their environment. Secondary artefacts consist of representations of primary artefacts and of the modes of action using them. Examples of second-level artefacts are pictures, representations and the different modes of action that enable humans to transmit skill and information and to reflect upon their activities. Tertiary, artefacts consist of a class of artefacts that can come to constitute a relatively autonomous "world" in which the rules, conventions, and outcomes no longer appear directly practical in nature. Such imaginative artefacts can influence the way we see the actual world. They can also act as agents of change for current practice. Examples of third-level artefacts are works of art, myth, worldview and theoretical models. My painting and process map would constitute secondary artefacts, while my ecological framework and narrative are tertiary artefacts that aim to alter the way we see and appreciate the world.

This narrative, which includes the factual account of my process of making and also an intellectual and reflective evaluation of the process of my making using a number of theoretical/ metaphorical tools (tertiary artefacts¹¹) to imagine and re-describe reality, are the product of what Ricoeur terms, the productive imagination (Figure 3).

Figure 3 My attempt to use Ricoeur's conceptual framework¹⁰ as a tool to understand the role of imagination in my making project - inspired by Joy Whitton's account of Ricoeur's work⁹. Artefacts are categorized as secondary or tertiary Wartofsky¹¹



If the reader accepts this explanation then perhaps we might go further and suggest that our initial utilization of reproductive imagination to create something we value, can be used as a foundation for the use of productive imagination by connecting the experience to a reflective and analytical process that enables us to see it in an entirely different way i.e. my ecological interpretation. In this way new artefacts provide the basis for new projects and engagements (like #creativeHE conversation for which this is written) from which new artefacts and understandings are likely to flow. In this way my imaginative use of my own experience to create a meaning making narrative that I can share using the technologies of the web enables me to connect to the imagination of the reader and, perhaps, trigger new thoughts and imaginings in the process i.e. my tertiary artefact intentionally performs the role of mediation and becomes a tool for engaging social imagination.

Concluding remarks

Anthropologist Tim Ingold offers two perspectives on the idea and process of making namely^{13:20-2}: *making as a project*, 'we start with an idea in mind, of what we want to achieve, and with a supply of the raw material needed to achieve it. And it is to finish at the moment when the material has taken on the intended form', or *making....as a process of growth*, 'the maker from the outset [is] a participant .. amongst a world of active materials. These materials are what he has to work with, and in the process of making he 'joins forces' with them, bringing them together or splitting them apart, synthesising and distilling, in anticipation of what might emerge.'

The idea of 'material' is central to the idea of making. Dictionary definitions of material¹⁴ include: (1) The matter from which a thing is or can be made and (2) Information or ideas for use in creating a book or other work or items, such as songs or jokes, comprising a performer's act. In the context of this sense making narrative I am using the idea of materials to represent the physical materials that formed the substance of the painting and the materials of my immaterial world - events like walking in the landscape and Christmas, people and relationships, all of which influenced and were connected through my painting.

The narrative describes the painting of my picture as a *making project*, in the sense of having an idea for a painting and then completing various activities and tasks within a particular time frame until it was completed. But it also describes a *dynamic process of participation and growth* in which I was, and still am, an engaged participant ‘amongst a world of active materials’ (using the concept of materials outlined above): a world of active materials that continues well beyond the completion of the painting until this moment I am in now.

It seems to me that my making of these artefacts emerged through the circumstances of my life (circumstances I have influenced but not controlled) in the manner envisaged by Carl Rogers² - the creative process is, ‘*the emergence in action of a novel relational product growing out of the uniqueness of the individual on the one hand, and the materials, events, or circumstances of their life*’. This ecological concept of creativity clearly aligns well to Ingold’s ideas on making as a process of growth. This is very much an ecological (relational, interactional and *connectional/combinational*) view of creativity in line with the experience I have described in my narrative.

My experience and my reflections on the experience enable me to personalise and appropriate Carl Rogers’ definition for my own creative process ‘*through a process of imagining and connecting particular things to achieve a particular goal, new, novel (for me) relational products grew out of my uniqueness as an individual on the one hand, and the materials of my life*’. The map of my making process and this narrative shows this cycle of action and interaction occurred twice: firstly, to generate my painting and then to produce this narrative which is continuing to the moment I am posting it (10/03/18), and will, I know, continue in my future.

The author and poet William Plomer once said, “*It is the function of creative people to perceive relations between thoughts, or things, or forms of expressions that seem utterly different, and to be able to connect the seemingly unconnected.*” But we are all creative people and my story illustrates that when we create, the things we connect are not really unconnected because they are connected by our very existence and our relationships and interactions with the real or imagined worlds we inhabit. From all the possibilities for connection we encounter, we select those that have meaning for a particular purpose, context or circumstance, like the desire to make a particular thing or to make a particular thing happen. The mental construct I have developed (encapsulated in a metaphorical diagram and words) to explain this personal task of creation, is an ecology of practice that embraces *the whole of us* in a continuously unfolding interactive and connected relationship with our real and imagined worlds.

Writing these words triggered a memory from a few weeks ago coming across a video clip of David Hockney talking about the need to find the poetry in his art. Now I am connected to Ricoeur’s ideas, I think the search for conceptual understanding is a bit like creating a poem in so far as it’s a search for deeper meanings and expressions of alternative realities that provide us with deeper insights into the mysteries of life.

Acknowledgements

Creative ideas and work is often inspired by the words and deeds of others. My interest in painting has definitely been rejuvenated by watching and listening to David Hockney on YouTube and participating in the December 2017 #creativeHE discussion. I am also very grateful to Dr Joy Whitton for allowing me to read her new book, ‘Fostering Imagination in Higher Education’ ahead of publication in April. Her writing inspired much new thinking and helping me transform my understanding of imagination and its role in creativity

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Making of a Geological Map : An Ecological Perspective on Creativity in the Making

Norman Jackson

Introduction

People working in many different disciplinary fields make artefacts in the course of their work. Often these artefacts act as mediators to convey knowledge and understanding to others. In this article I use the example a field geologist making a geological map - a complex knowledge-based artefact, to explore how creativity might be involved in the process. Although this is a fictitious story it is grounded in my own experience of being a field geologist. Through this narrative I develop the proposition that making and the creativity associated with making are ecological phenomenon nested within the ecologies we create to learn, practise and achieve: a proposition that is consistent with Withagena and van der Kamp's ecological concept of creativity in making¹.

In the narrative I incorporate many of the perspectives offered on creativity in the making in the #creativeHE conversation (ie making as a project or as growth, making as a process of connecting, making involves thinking through all the senses, and making involves imagination).



What is a geologist?

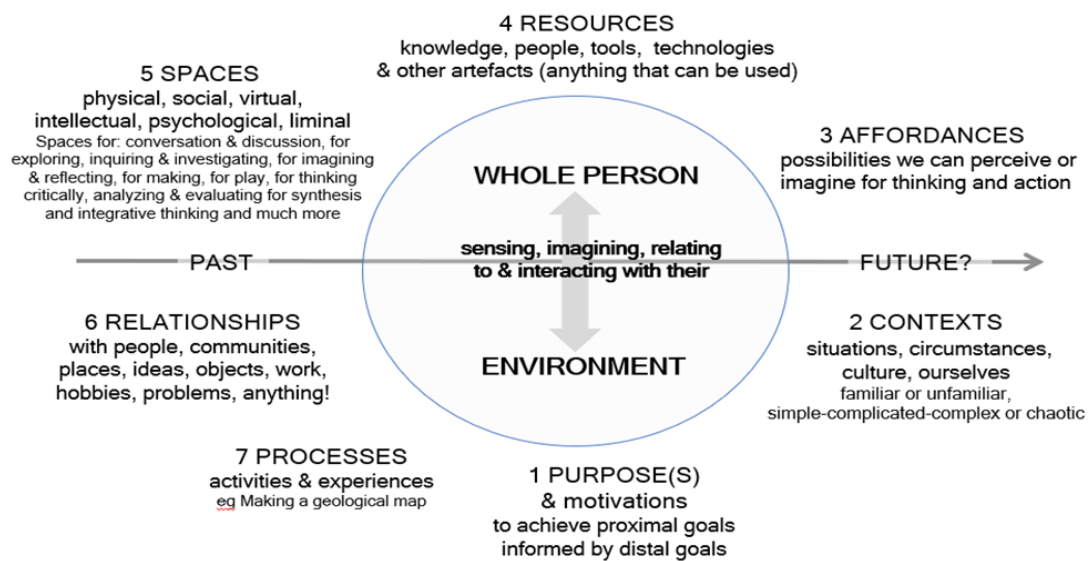
Geologists are 'knowledge workers', that means their work involves developing and applying knowledge in the solution of "non-routine" geological problems involving critical and creative thinking using the scientific methodologies of the natural sciences.^{2,3} Geology is the study of the earth, its rocks and landscapes and the processes that formed them. To perform the role of a geologist a person must develop a substantial body of knowledge to enable them to perceive (see, recognize, interpret and understand) the rocks, structures and landscapes they are studying. They have also to develop the practical skills to describe and identify the rocks and structures in the field (and laboratory) and understand their relationships to each other. This is the specialized domain of knowledge and skills used to apply the knowledge to non-routine problem solving.

Geologists are involved in developing and applying knowledge to domain specific problems: learning about the Earth is at the core of their professional work. Based on this reasoning we can use the concept of a learning ecology⁴ to represent the key features of a geologist's relationships and interactions with the domain specific environments they inhabit (Figure 1). In effect, their ecology for learning is also their ecology of practice and in this illustration their ecology of practice is an ecology for making within which their creativity is able to emerge as the process of making the map unfolds^{1,4}.

Making a geological map

Making a geological map is a domain specific challenge that a geologist will encounter in his or her work. A geologist's ecology of practice is lived in his unfolding present but connected to his past experiences of making other geological maps and studying geology as a subject. Its purpose is to accomplish the proximal goal, to learn about and understand the geology of the area and make a geological map. But this practical near future objective is connected to the more distal goal of becoming the 'better version of the geologist he wants to be': he knows that his project will provide him with opportunities to use and develop his knowledge and skills as a geologist.

Figure 1 Key features of an ecology of practice (adapted from my concept of a learning ecology⁴) The framework or model shows key relationships and interactions between the person and their environment. It is underpinned by a metaphor and through the relationships and connections it portrays it interprets and re-describes reality⁵. The ecological framework is a heuristic to help us imagine some of the complexity involved in complex achievements like making a geological map. Labels (1-6) explain an aspect of the ecology but do not say how they interact which is revealed in the story of making. The components of the ecology do not stand in isolation: they can and do connect, interfere and are incorporated into each other.

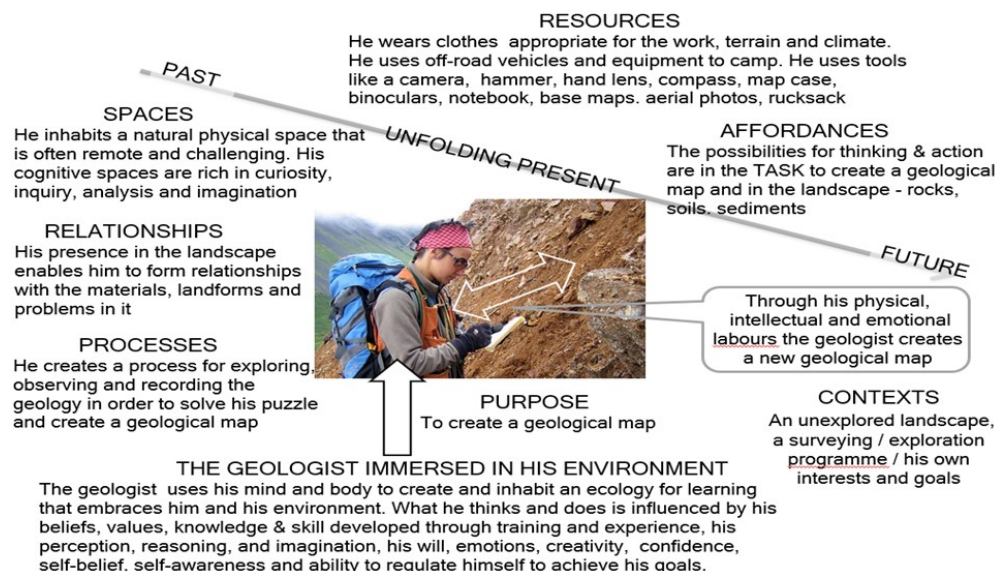


The geologist's ecology of practice comprises himself, his expertise and everything else he brings to the situation, his environment, his interactions with his environment and the learning, creativity and achievement that emerges from these interactions. As he begins his project he is, in effect, entering a liminal space⁶ with all the uncertainty, perplexity and ambiguity of not knowing. The ecology he creates is his means of working in this liminal space in order to develop his knowledge and make the transition from a lower to a higher level of understanding and awareness. His orientation is towards active exploration and inquiry and this is connected to searching for and recognizing the affordances for learning in order to achieve his goal^{1,7,8}.

His ecology for learning and making involves his body and mind, and specific tools and technologies. His domain specific practices involve him physically covering the ground observing and interacting with the rocks, gathering and processing lots of information through particular skillful tasks and actions - like locating the position of a rock outcrop on a geographic map or aerial photograph, perceiving, observing and recording rock outcrops, measuring the dip and strike of bedding or other structures in the rocks, breaking rocks and examining fresh surfaces with a hand lens and perhaps testing them with dilute HCl, photographing and sketching outcrops and annotating sketches with observations, and where there is little outcrop examining the soils or materials in streams. In these actions he is searching for meaning in his environment: meanings that have been learnt through years of study and practical experiences in a range of environments.

Using the framework provided in Figure 1 we can identify the elements of the geologist's field-based ecology of practice for making a geological map (Figure 2), noting that the complete ecology will also contain elements that are desk- and laboratory-based.

Figure 2 A field geologist's ecology of practice for making a geological map



The cognitive processes of perceiving, imagining, reasoning and reflecting enable him to develop hypotheses about what is being perceived and experienced and these thoughts and feelings influence his actions. The activities he chooses to undertake enable him to test and evaluate his theories, to find the pieces of the geological puzzle he is trying to solve (rock outcrops and structures), sense (observe, feel, measure) the rock materials, and record (often sketching or photographing and making notes) what has been perceived. In this entangled thinking and action he uses tools like a hammer, compass, clinometer, camera, notebook, base maps, and aerial photographs to help him sample measure and record information that is important and relevant to his problem solving. In this way ideas about the geology are tested, advanced or abandoned as his actions unfold.

Making a geological map is like solving a giant jigsaw puzzle where most of the pieces are missing. The geologist's learning project is one of continuous inquiry driven by his curiosity and need to understand. His project requires all forms of reasoning and the use of imagination to speculate and project from the known into the unknown to try to visualise and make sense of the patterns and the stories he is seeing in landscape. He draws on the full range of his cognitive space as he strives to understand his problem while interacting physically, intellectually and emotionally with the physical spaces of his natural environment.

'Making a domain specific artefact' is at the heart of his map making. At the start of his book 'Making is Connecting' Gauntlet⁹ offers three propositions:

Making is connecting because you have to connect things together (materials, ideas, or both) to make something new; Making is connecting because acts of creativity usually involve, at some point, a social dimension and connect us with other people; And making is connecting because through making things and sharing them in the world, we increase our engagement and connection with our social and physical environments.^{9:2}

These propositions are all valid to the geologist's map making. Through his interactions with his field environment he collects and connects the evidence for his geological jigsaw puzzle and as he thinks (perceives, imagines and reasons) he connects these pieces in particular ways and in a particular time frame to produce something new and tangible. While the social element is not so visible, he will be connected to other members of his team and his artefact will be used as a mediating tool with his team and with other geologists and people working in allied disciplines.

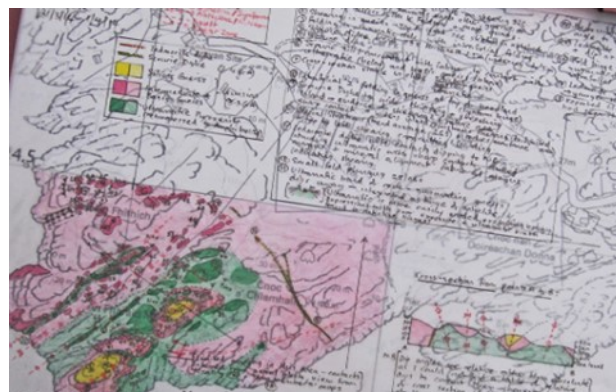
Seeing and understanding that something has the possibility for connection in the first place, whether in advance or as the situation presents itself, are important in this process of making. The geologist does not connect random things, there is a thoughtful process going on which leads him to connect only those things that are useful and fit his evolving mental models. In this way his process of connecting draws together, combines and integrates things that are meaningful in the context of his map making and the construction of a geological history.

As he works and learns he assembles the pieces of his jigsaw puzzle in his map and constructs a narrative to explain the geological history of the area: a story that embodies his own interpretations and theories and all the uncertainties and unknowns that drive further inquiry.

The act of 'making a map' is an emotional as well as an intellectual experience. The geologist experiences joy in the work he is doing often in a landscape that often has aesthetic appeal. He feels satisfaction as he makes progress in work that means something to him¹⁰: he loves the challenge and he likes solving the puzzle which sustains his motivation. But he can also experience feelings of frustration when he spends many hours searching for answers but cannot find them. He is often uncomfortable: it rains a lot so he is constantly wet and it's not easy to keep his field slips and map dry. It can also be painful as slipping and falling is part and parcel of the scrambling over the loose rocks and occasionally, as he pushes himself to climb a cliff, he feels anxiety and fear.

These complex sensory experiences and intense interminglings of the physical, intellectual and emotional states of being enable him to form deep relationships with his work and the objects of his work - his landscape and the rocks in it. His emotions contribute to the investment he is making in his own meaning making process and encourage feelings of pride and resilience as he pursues his goals in what is often an inhospitable environment, knowing that he is making a contribution to the knowledge of his domain.

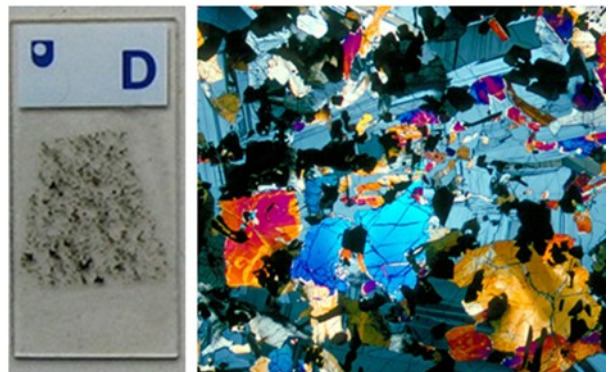
The geologist embodies his learning. He needs to get his body, and engage his senses and his mind, to the places he needs to be in order to find the evidence to test his working hypothesis. Where he needs to be is determined by where he has been and what he has discovered through being there. It's an evolving process as he criss-crosses the landscape (his self-determined walking curriculum⁸). He has to get himself into the physical spaces that have the highest potential for solving his problem and then know how to act to enable his senses to gather the information he needs. While this is essentially a rational and analytical process my own experience has shown me that intuition and instinct might be involved. Sometimes it just feels right to do something without really being able to immediately explain why.



[illegible]

This reflective process is an essential part of his sense making process. It's the way he consolidates what he has learnt, checks his theories and working models and through which new insights and possibilities emerge. It's a stimulus for imagination and time for careful

These analytical and conceptual processes continue after the field experience has been completed as rock samples are analysed and understood better. New artefacts and data are produced through these analytical processes. For example, geologists use microscopes to study the mineral composition, textures and structures of the rocks they have sampled using thin transparent slices of rock (30 microns thick). Thin sections (example right) are important artefacts produced from natural materials that reveal the beauty in the rocks and minerals and enable those materials to be understood, characterised and classified. Through laboratory study the accuracy of the geological map and report the geologist is producing can be improved.



The geological map displays several distinct geological units and structural features. Key elements include:

- Geological Units:**
 - Ocala Green Bank:** A prominent unit labeled in the center, colored light green, and outlined with a dashed line.
 - Other Units:** Various other units are represented by different colors (pink, light green, light blue) and line styles (solid, dashed, dotted).
- Structural Features:**
 - Faults:** Indicated by lines with tick marks, showing areas of crustal thinning and extension.
 - Unconformities:** Represented by lines with small circles, indicating periods of erosion or non-deposition.
- Topographic Features:**
 - Contours:** Dashed lines representing elevation contours.
 - Water Bodies:** Areas labeled 'LAKE' and 'RIVER' are shown in light blue.
- Scale and Orientation:**
 - Scale Bar:** Located at the bottom left, indicating distances in miles (0 to 10).
 - North Arrow:** Located at the bottom right, pointing towards the top of the map.

existence, explained in the image, the key and in an accompanying report, about the geological history and mineral resources of an area. The map is also a tool that can be used to make decisions about how a landscape and its resources might be used and managed in future ie it contains the information necessary for future action.

How does creativity feature in this ecology of practice for *making* a geological map?

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Anthropologist Tim Ingold offers two perspectives on the idea and process of making namely^{11:20-2}: *making as a project*, 'we start with an idea in mind, of what we want to achieve, and with a supply of the raw material needed to achieve it. And it is to finish at the moment when the material has taken on the intended form', or *making....as a process of growth*, 'the maker from the outset [is] a participant .. amongst a world of active materials. These materials are what he has to work with, and in the process of making he 'joins forces' with them, bringing them together or splitting them apart, synthesising and distilling, in anticipation of what might emerge.'

Making a geological map can be understood in both of these senses of making. The geologist certainly begins with an idea of what the outcome from his making process will be, he might even have a rough idea of what his map will eventually look like, and the length of time it will take him to make it. But he is totally ignorant of the detail which only emerges through the *dynamic process of participation and growth* in which he will be involved 'amongst a world of active materials': and part of this emergence is the growth in his own understanding and in the better version of himself he is becoming.

This view of the geologist growing as he participates in his making is consistent with the idea that making is an ecological phenomenon. In my illustration of a geologist's ecology of practice there are many affordances for learning and creativity and many tangible expressions of his creativity. Some of these expressions emerge in the artefacts he produces to record and represent the geology he has observed in the field (field slips, notebooks, maps) that can be used and valued by other people who have the knowledge to understand their meaning. Some of the geologist's creativity is embodied in the narrative he creates and communicates through his reports, that convey his understandings of the geological history of his field area carrying his own interpretations, theories and synthesis. Through words and illustrations, he creates a story that both describes (represents symbolically) and accounts for the geology of the area, interpreting, hypothesizing and speculating, and connecting the factual pieces of the geological puzzle into a new synthesis.

But much of his creativity is embedded in the narrative that is rarely told: the narrative of his making. Anthropologist Tim Ingold has much to say on the making of cultural artefacts that grow through a unique person interacting with purpose with their social, cultural and physical environment. Here are three connected perspectives [*with my customisations*] that seem to capture well the nature of creativity in the geologist's map making practices.

'I want to argue that what Klee said of art is true of skilled practice in general [*for example a geologist making a geological map*], namely that it is a question not of imposing preconceived forms on inert matter but of intervening in the fields of force and currents of material wherein forms are generated. Practitioners, I contend, are wanderers, wayfarers, whose skill lies in their ability to find the grain of the world's becoming and to follow its course while bending it to their evolving purpose'.^{12:92}

'what people do with materials [*geological materials*]..... is to follow them, weaving their own lines of becoming into the texture of material flows comprising the lifeworld. Out of this, there emerge the kinds of things we call buildings, plants, pies [*geological maps!*] and paintings' and, in our example, geological maps and reports.^{12:91}

'[*Geologists*] are itinerant wayfarers. They make their way through the [*landscape*] bringing forth their work as they press on with their own lives. It is in this very forward movement that the creativity of the work is to be found. To read creativity 'forwards' entails a focus not on abduction but on improvisation^{11:3}. To improvise is to follow the ways of the world, as they open up, rather than to recover a chain of connections, from an end-point to a starting-point, on a route already travelled'.^{12:97}

The making of a geological map draws attention to another feature of making namely, that the precise artefact that is made can only be made in a particular place. The artefact represents the place but it also helps make the place, in the sense that it helps us create more knowledge about the place, knowledge that can be shared with others through the map representation.

One further factor might be considered in this ecological narrative, namely the expertise of the geologist making the map. The level of expertise - knowledge, skill, competency, capability and experience, will have a significant influence on the creativity that a geologist can be brought to the problem of making a geological map¹. There is a body of research showing that skilled agents rely on different informational variables than novices^{14,15}. Expertise is partly determined by the informational variables a person is attuned to¹. An experienced geologist is likely to be attuned to a greater range of information variables - learnt through field experiences as well as formal study, than a less experienced geologist.

Imagination

An important question, as far as creativity is concerned is, ‘how does imagination feature in the geologist’s map making process?

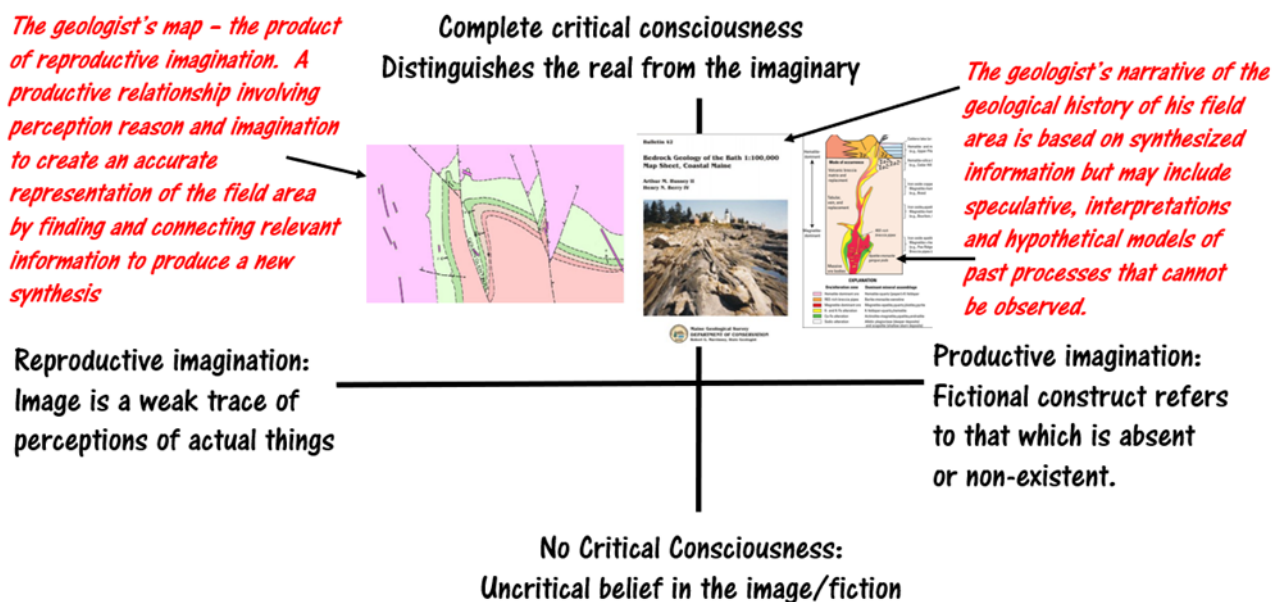
French philosopher Paul Ricoeur offers some interesting perspectives on imagination⁵. Firstly, he asserts that imagination and perception are intertwined, “imagination is not something marginal to or occasional in thought but rather permeates all thought and conceptualization....perception is always structured by physiological and imaginative processes.” “imagination is not at all an alternative to perception but [is] an ingredient of perception. It’s encapsulated within the framework of perception.”¹⁶ citing 5. He draws a distinction between ‘reproductive’ imagination, which relies on memory and mimesis, and ‘productive’ imagination, which is generative.^{5, 16, 17}

He asserts “there are two main types of ‘reproductive’ imagination: the first refers to the way we bring common objects or experiences to the ‘mind’s eye’ in the form of an image...The second refers to material representations whose function is to somehow copy or ‘take the place of’ the things they represent (e.g., photographs, portraits, drawings, diagrams, and maps).”¹⁶

Ricoeur locates the productive imagination in fiction, in the “nowhere” that fiction provides, the paradox is that fiction provides a new dimension of reality. Examples include inventions like novels and fables - which are not intended to be straightforward descriptions of the world.¹⁶ Ricoeur argues that “creating a story is an act of semantic innovation. In narrative, the semantic innovation lies in the inventing of another work of recombination and synthesis. The productive imagination ‘grasps together and integrates into one whole and complete story multiple and scattered events, thereby schematizing the intelligible signification attached to the narrative taken as a whole’. ‘To understand the story is to understand how and why the successive episodes led to this conclusion, which, far from being foreseeable, must finally be acceptable, as congruent with the episodes brought together by the story’ ¹⁶ citing 5. Ricoeur extends his idea of productive imagination in fiction to models, which in science are used to theorize and to ‘re-describe’ phenomenon.... Models refer to, but do not reproduce, a pre-existing original. They allude to common attributes between the model and the underlying characteristic/s to which it refers.”¹⁶ citing 5.

Figure 3 Provides an interpretation of the way imagination features in domain specific artefacts produced by a field geologist when he makes a geological map. His map is an accurate representation of the geology of his field area using the symbolic cartographic language of the domain. This artefact would appear to fall into the category of reproductive imagination in the sense of the representation “‘takes the place of’ the things they represent (e.g., photographs, portraits, drawings, diagrams, and maps).”¹⁶ Similarly, the geologist’s synthesis narrative of the geological history of the area is also a factual representation of what can be observed, but in order to move beyond what can be observed, it may well include informed speculations and hypothetical models or theories that represent his interpretations of past environments and geological processes that cannot be directly observed. In this sense they are, in part, the products of productive imagination.

Figure 3 Ricoeur’s conceptual framework⁵ as a tool to understand the role of geologist’s imagination in his geological mapping project - informed and stimulated by Joy Whitton’s account of fostering imagination in higher education¹⁶. My hypothesis: as a natural scientist the geologist first builds novel artefacts that are, in part, the product of reproductive imagination. These provide the platform for further artefacts, like models and theories, that are the result of productive imagination.



Ricoeur's schema (itself a good example of the use of imagination) is a representation of two possible configurations of imagination. The way I have positioned the geologist's artefacts is perhaps not surprising. Geology is a natural science dependent on accurate observations and representations of the world in order to interpret how the world works. Its foundational principle is 'the present is the key to the past': observe how rocks form in the present and you can extrapolate these understandings into the past.

Any artefacts that are created will inevitably attempt to represent actual things (rocks and structures) in the observable world through the language, symbols and graphical representations of the discipline, and they will fall into the left hand field of this conceptual framework. But such close to real world representations are the essential platforms for more expansive, imaginative ways of thinking and the creation of theories and speculative models of, for example, past geological histories or formational processes. This way of thinking might suggest that, for the geologist (indeed any scientist) the route to generative 'productive imagination is via the activities and artefacts of reproductive imagination.

Once created, the products of reproductive or productive imagination must be subjected to critical thinking. Questions need to be asked about their validity and utility. In this way we can see that imagination and reasoning go hand in hand. Now we can recognize the significance of Ricoeur's axis of belief (Figure 4) which distinguishes between critical consciousness and uncritical belief in the imaginative products. Critical consciousness comes about through a process of critical reasoning and reflection and continual critique by peers, either through a process of formal peer review or from peers more generally once artefacts have been published. In this way the products of an individual's imagination become the shared property of the field.¹⁶

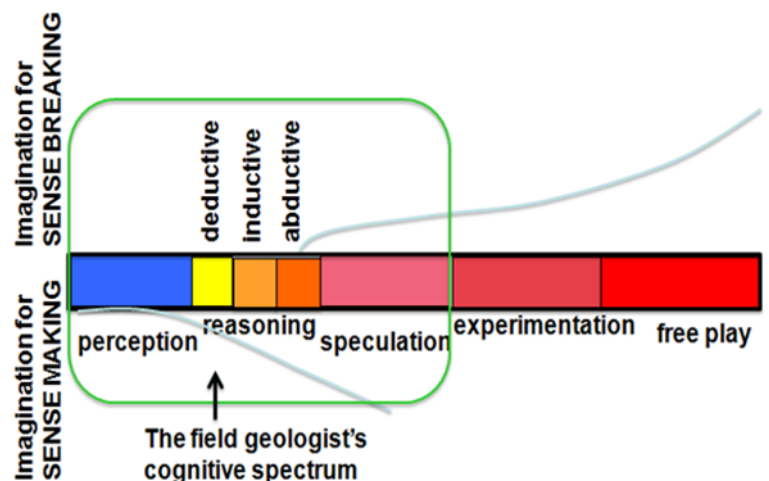
Geologists, like all knowledge workers, are generating and processing large amounts of complex information and with such complexity the devil is always in the detail. Such detail can only ever be appreciated by the geologist himself. Only he will know when he connected 'things' in a way that changed / transformed the way he perceived something and created new meaning, perhaps triggering new imaginative ideas that spawned new actions and outcomes. Such detail might be revealed in the story of how he made his map, since his creativity is embedded and embodied in his unique process for engaging with his challenge, and the unique way he connected the parts of his puzzle to create his synthesis. Carl Rogers seems to grasp the emergent, situated and ecological nature of creativity in his synthesis description of the creative process, 'the emergence in action of a novel relational product growing out of the uniqueness of the individual on the one hand, and the materials, events, or circumstances of their life'¹⁸

Let's revisit the scenario described in this article. I am suggesting that the field geologist connects, accommodates and integrates many things when he creates an ecology to tackle his field-mapping challenge that will tax him physically, emotionally and intellectually over a considerable period of time. If the field area, and the geological problems it contains, are entirely new to him (quite likely) he will enter a liminal state in which there is a significant gap between what he knows and what he needs to know so he is forced to make new discoveries in order to progress his understanding. Add geological complexity and poor rock exposure to the situation and we have a difficult challenge requiring scientific (inductive, deductive and abductive) reasoning and a lot of imaginative speculation.

Through the challenge of making a geological map the intermingling of the geologist's perception (observation and recording), imagination (speculation and conceptualization), reasoning (analysis and judgement), reflection and emotion, offer endless possibilities for creating new understanding and meaning. When we explore and try to solve a problem, challenge or opportunity, we use our imagination and our critical ways of thinking in a complex synergistic interplay: what Ann Pendleton-Jullian and John Seely Brown call 'pragmatic imagination' 'a productive [and purposeful] entanglement of imagination, reasoning and action.'¹⁹

Pragmatic imagination sees thought and action as individual and reciprocal. These authors represent thinking as a continuum including perception, reasoning and imagination (Figure 4) with imagination having the potential to be connected to both perception and reasoning. 'In our framework for the pragmatic imagination, the role of the imagination has expanded from a simple imagination versus reason dichotomy to an entire spectrum of activity from perception, through reasoning, speculation, experimentation to the free play imagination we associate with artistic creativity.'^{19:73}

Figure 4 Representation of the cognitive spectrum¹⁹ It is perhaps not surprising that in the milieu of cognition and emotions stimulated by the challenges, practices and ongoing actions and interactions, *that novel relational products grow out of the uniqueness of the individual on the one hand, and the materials, events, or circumstances of their life.*



My interpretation of the typical cognitive spectrum of the geologist (green outline in Figure 4), implies that different disciplinary/practitioner fields might have a different continuum. For example, a chemist might use experimentation as a vehicle for his imaginations while an artist will use the domain of free play and experimentation as the playground for their imagination and inspiration.

The elements of a geologist's cognition and bodily actions work together in a merry dance through field, laboratory and office (writing, processing and cartographic) environments and the knowledge and understanding that is developed is codified and explicated in the domain specific artefacts he makes. Creativity is involved in this process of making but it is so intermingled with what might be termed, non-creative doings, that it is well-nigh impossible to isolate and say this particular bit of thinking and practice is creative and this is not. As a former field geologist, I agree with Tim Ingold when he says, 'Rather than reading creativity 'backwards', from a finished object to an initial intention in the mind of an agent, this entails reading it forwards, in an ongoing generative movement that is at once itinerant, improvisatory and rhythmic.'^{11:91}

A geological map and report are the synthesis and meaningful products of this purposeful, itinerant, improvisatory and rhythmic process that is the geologist's ecology of practice. In the words of Rogers, these artefacts 'emerge in action' as 'novel relational product[s] growing out of the uniqueness of the individual on the one hand, and the materials, events, or circumstances of their life'¹⁸ Circumstances that the geologist, through his own history, learning and actions, has helped determine, but which are also shaped by the environment, materials and unfolding problem he is working with. 'behavior is not preplanned but unfolds over time,..... creativity has to be found not in the head, but in the process of making,'^{1:5} the geological map.

Acknowledgement

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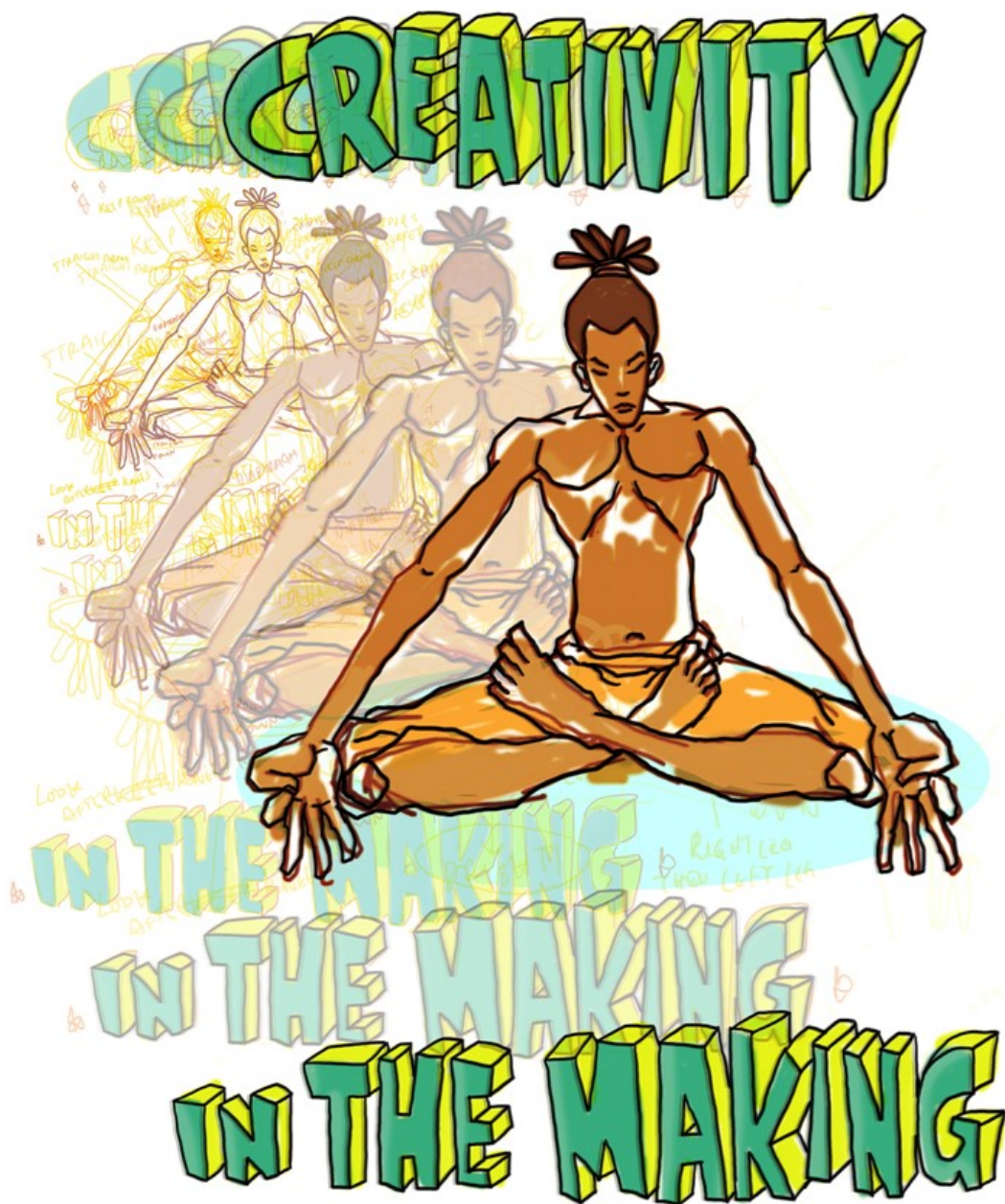
Making an Illustration

Kiboko HachiYon

I have been learning ashtanga yoga for the last 3/4 years and took inspiration from my learning process to create this illustration.

My ashtanga practice, much like my illustration process is a messy affair, riddled with revisions, layers, alterations, headaches, elements of uncertainty, and ego. But it is all process driven most people only see the final result. I am the only one to see and experience the whole process I go through to achieve the result.

This sums up for me what creativity in the making is. Making an illustration or artistic work is messy, experimental, a process riddled with pitfalls and discovery, but more times than most, it's only the end result that is seen. With the illustration, I tried to capture the whole process, from initial rough sketch, to revised sketch, to tight lines and addition of type and colour to final image. Time consuming, filled with revisions, personal in this instance, but for this image I felt that it is a fitting image to show that this is how I get to achieve my results, put the time in, change, tweak, take a break, start again and create something you are finally happy with, both in the process and end result.



Making is connecting... A journey into the making as a means of connection and personal growth: *Exploring the feminine in the making*

Marla Kefalogianni



Maria is a Lecturer in Counselling & Psychotherapy at the University of Salford. She teaches across MSc and BSc programmes and is a module leader of Bereavement & Loss. Her current research interests are on autoethnographic methods of research enquiry and creativity in HE. Maria also holds a small private practice where she offers therapy and supervision for counsellors but also other professionals (ie. In social work, mental health etc). Amidst all this she is also a mother to a toddler, a wife, dog owner and a curious not grown up child! As if this is not enough she is a member of the Lifewide Education & Creative Academic Team and a frequent contributor to the magazines.

It all began with an invitation: A week of creative making on the online platform of #creativeHE I penciled it in my diary with a silent knowing that I should show up to this invite despite my initial hesitation. I have always associated the word create with a feeling of pressure to "produce" something that will be recognized and will be complete. This pressure which we can say is socially constructed often blocks my creative natural urge. Being part of #creativeHE collective made my choice of engagement easier and my engagement richer. The sense of belonging to this collective journey has significance for me as it nourishes the collective spirit which forms a strong part of my Greek identity. So, I took the opportunity afforded by this challenge and allowed myself to engage playfully and organically.

Making as playing

I chose to reframe my aim from creative making to creative play. Playing with, prerequisites a recipient and an observer. We could say that play takes place in a dialogical space. It necessitates an attitude of curiosity and active engagement with the object of play but also imagination and engagement with feelings, thoughts, memories and imagination often based on experiences of the player.

I first needed to decide the medium. Chrissi Nerantzi from the community mentioned clay and I instantly felt a strong calling from within. I didn't think about it much and placed my first order.

There was something in the tactile-ness of this medium and its ability to create a shape out of nothing, that really attracted me. Its ability to make the invisible visible is very much captured in my process of creation. Sholt and Gavron^{1:66} claim that there is a link "between symbolic clay products and mental spiritual realm of human kind early in human history. Making pottery is one of the oldest activities of human kind and has innate power to transform soft malleable clay into a durable material. It is also particularly resonating with my identity as a Greek, as clay has been prominent in the Mediterranean artistic culture during the Antique period². I knew on a cognitive level that clay accesses realms of feelings and thoughts which go beyond verbal ability and its beneficial use is well recognized^{3,4}. Clay involves a very primitive mode of expression and communication as it involves touching⁵ (Henley, 2002); tactile contact is the first and foremost non verbal mode of communication in humans in a sense to understand our boundaries⁶ (Bowlby, 1988)

In this process, I also I wanted to place myself as an active participant among my ingredients and the process of making. How else could it be different anyway? How can an artist/ creator leave aside himself and all his complexities, personalities, his whole self or aspects of himself and his life ? I tend to believe that wherever we are, and however we feel in that particular moment it will somehow be projected into what we create and how we engage with life itself.

Art expression is not just the production of a final product but a process, which holds the potential to reveal meaningful information about the creator's inner world⁷ (Betensky, 1995). This is what I hope to show and demonstrate below.

As Tim Ingold says : "even if the maker has a form in mind, it is not this form that creates the work. It is the engagement with materials"⁸. His ideas about thinking on making as a process of growth resonates deeply with me, as I will show below how my creation process has been therapeutic.

Some of the sculptures I made



Like many novices I used YouTube tutorials in order to learn how to make some of my artefacts. While the process of making them was pleasant the emotional connection was not as strong. I knew the feeling of satisfaction at achieving my goals wouldn't last for long if I continued to follow tutorials. For my own learning process emotions do matter. I can engage with a process on a cognitive level easily. However, if I find/discover meaning in what I do which engages my senses, my feelings my emotions it enriches my understanding of myself and the way I relate to the world around me. In such circumstances my learning becomes memorable and more meaningful.

Slowly I started to just play with the clay and as others have written to begin tolerating risk more effectively by making and scrapping parts of clay and beginning to enjoy the process of trial and error With the necessary moments of loss and disorientation I found myself beginning to feel a little more comfortable in losing myself in the process and trusting in the seeing that emerges from it.

Here, I recall a saying by Beverley Sills "a craftsman needs to know how a thing will turn out, an artist does not..." and very much appreciating and recognizing that at the early stages I was working in the mindset of a craft person while aspiring to be an artist.

As I placed my hands on the clay I found myself wondering what to make ...I didn't think about it much and I quickly began making women, feminine bodies and parts of the feminine body. I was quickly conscious that my mind was trying to create an initial meaning out of this choice. I tried to place and bracket off my thoughts as much as I could and I went with it trusting the wisdom that comes.

It is worth mentioning that in the months immediately prior the start of the creation process, I was pre-occupied on many levels with the role that women have played in my wider family and their life experiences have influenced me greatly. During my making process, I have been thinking about, and been influenced and inspired by many women in my life. Among these include close friends, clients, women on the news, women of history and family members.

I have also been experiencing deep grief at the sight of human suffering and have felt awe at the sight of women across the globe who keep villages together, challenging patriarchy amidst very atrocious life circumstances whilst at the same time being aware of my own privileged position as a western woman (which has brought up strong feelings).

In particular, with women in my family I have been having dreams of my grandmothers and aunts who have died. The dreams have been re-occurring (and continue to be so to this day). In my waking life I have been experiencing deep compassion but also grief at the losses they had faced in their lives, the poverty, the oppression and the difficult lives they had. I felt a strong urge that I needed to somehow honor these women in my making process but also allow these women to infiltrate my making process and allow their messages and teachings to emerge.

You can view one of the influential articles I read during my process of making <https://www.theguardian.com/world/video/2018/mar/08/a-female-doctor-in-east-ghouta-committed-to-challenging-the-patriarchy-even-in-war-video>.

In my making process I feel I was also deepening my gratitude for what women can bring to myself, to the world and what they already brought despite the hardship they have experienced. Women through history have been abused, misused, misled, and treated like an inferior race. I found myself immersed with emotion and wet eyes once I completed the creation on the right.



What appeared to be an accidental scratch with my wooden tool on the clay, became a purposeful and meaningful symbolism. It very quickly captured my attention. "What can I make out of this?" It was as if in my process of making everything had the potential to hold symbolic/artistic meaning, everything was data and nothing was to be wasted.

In my process, I realize, it's as if there is a tacit trusting and knowing in the healing power of the clay. As if messages are already there, waiting to be discovered. This, in my eyes is a more spiritual approach to making. The power of clay holding the potential of being a portal to our unconscious and our spirit is well documented in different writings and the relationship between how our traumas affect our bodies and spirit.

Patricia Sherwood claims⁹ that when there has been trauma to the body, (I would also add to the spirit), of one person, there's an energetic block in aspects of the body of that person which would need healing; clay holds a strong potential in unlocking all areas which need to be healed.

I quickly decided to make it look like a scratch, a scar, to symbolize all the pain women have suffered. This led to the creation of a blood-tear drop which could also be seen as a milk drop. Women for millennia years have been breastfeeding generations to come. I wanted to somehow honor the feminine power that lies in the giving and the love that is not affected (yet instead strengthening) in suffering. In doing so, and as I am writing this post a few months after I made this, I could say I was also honoring the emerging and deepening of my own feminine side. The process of making was somehow the portal to deeper compassion and giving. (I have kept close to none of my creations: the urge to gift and give all that I make cannot be resisted, compared to before when my ego mind would kick in with a quick reply "don't be so giving people will take advantage of it").

Of course, my own personal and relational process with life and my role as a woman is a continuously unfolding process of shaping my form and moulding into my role of the mother also comes to influence this process. The step into motherhood has been a hugely influential factor, which I have come to believe has been another portal in opening up my creativity.

My making was affected by listening to music, as it engaged immediately my emotions and created a more memorable experience. By listening to music while making I felt even more absorbed in the process...in other words, it helped my experience to be experienced in more of my senses and become truly embodied. Each stage felt different, moving from the uncertainty of the molding phase..to the cementing phase of sanding the clay and smoothing it was quite therapeutic. I found the coloring and polishing phase quite playful. This creative challenge, coincided with a period of strikes and illness in my family, which meant that I had to be off work for a while. The all of a sudden new found space had felt like an ocean, ready to drown me. The ample time I found having at hand, brought a challenge to my self-concept... who am I without my work... without my job role... how else do I define myself? In creatively using the space I allowed myself to feel and connect with aspects of myself I had lost touch with or not discovered before. My ability to create. I have always known myself as imaginative but not creator and I discovered through making the true meaning of Natalie Rogers: "We do not become creative by thinking about it. We reawaken our creativity by engaging in the process of creativity"^{10:95}.

I recognized through experiencing, that the art of making is an active process of unmaking and unlearning first. I had to consciously and with discernment step out of my need to "know what it will be like" or my need to produce something that makes sense to other people. At times I felt conscious about what others will think of what I have made. Most importantly, and to my surprise, making these artefacts proved and is continuing to prove to be therapeutic.

Clay was the portal for by passing my judgmental mind. In doing so my body learnt it can use its hands to create and what it chose to create was fuelled with wisdom. Playing with clay working with it being in direct contact with the medium from whence humans were created. One could say, it quietened my monkey busy mind and brought me in touch with the ever unfolding present moment.

I can now, on retrospection find a rich meaning in my need to use my hands and the sense of touch so actively and purposefully. It transpires that there was an underlying driving need to use all the range of myself, not just my intellectual mind which I am very used to. Prior to the period of making I had been in an ongoing deepening process of connection with my body but also integrating a deeper sense of my identity as a Greek living abroad. To feel inspired to use parts of my body to create, I can see now, was the next step to this process of deeper integration of my mind body and spirit. Memories and suppressed trauma or pain can be the "central window to the unconscious" which often from my psychotherapeutic experience can be unlocked through touch as well as movement.



I very much have enjoyed using clay as a means in my therapeutic practice yet have never used it for my own personal growth and wellbeing in that sense—what an irony! Clay has also been used to express and manifest religious dimensions in human life. Clay originates from the earth and as the earth is viewed as the source of all things it can be inferred that clay can anchor very powerful emotions.

Reading around I very much resonated with Gauntlett's ideas on making being connecting. Especially his proposition that "Making is connecting because acts of creativity usually involve, at some point, a social dimension and connect us with other people".¹¹

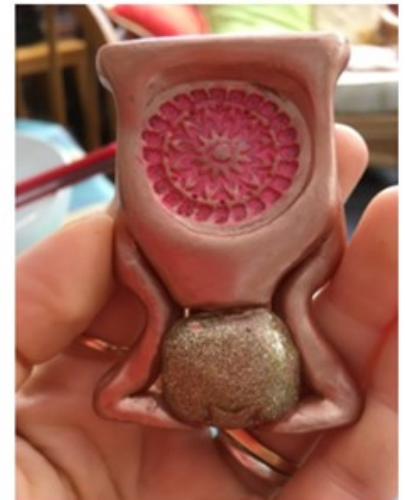
My making clearly extended beyond the materials and the space in which my artefacts were created. It has rather been a process of continuous unfolding and one which has brought me in awe about the wisdom of our bodies and our spirit. It doesn't really matter if you believe or not in spirit. What matters is that making and creating holds a strong potential of enriching one's life if used and approached from an ecological perspective.

I love Alexander Lowen's observation: "The creative act may be defined as any form of expression that adds new pleasure and meaning to life"^{12:33}.

It is as if since this creating project my life has a central guest star; a piece of clay, and all the artefacts are parts of the script I continue to write.

A couple of months after my making experience described above, I became pregnant but later miscarried. Two of my artifacts which I made -prior to finding out about pregnancy or miscarriage - but couldn't make much sense of are seen on the right. The first was intended to be a flower and which I nearly threw but instead kept behind. The second one whose creation is also recorded on a video - to become just another goddess, but it ultimately ended up being a birthing process.

In many ways my process of making has certainly been like birth; it delivered me lots of learning and wisdom to keep cherishing with gratitude.



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Moving Perspectives

Wendy Taleo and John Rae

Wendy and John 'danced with colours and word ideas', as they wrote, during the recent #CreativeHE making activity¹ They continue their conversation here, picking up on the earlier idea that: 'making art does not offer the 'best' perspective or that it offers the 'only' perspective. It is just 'another' perspective.'

[John says] Here are two pictures - collages in diptych form - made to explore the notion of examining something (here, landscape) from different perspectives.



Haiku for trees

Green leaves can whisper
What can never be mentioned
Or seen by the eye.



[Wendy] These collages were made in response to what one of John's postgraduate students said about her use of art-making to facilitate her learning:

I realised that all senses, vision, auditory, taste, olfactory and tactile are involved and it was in different orders and degrees that they get used.

[John says] What I take from this is that in art-making one may go beyond representation or even reflection through making. One may then go beyond even a multi-perspective understanding of something such that there is a dynamic movement forward, from one perspective, to another, to another. Such is the generative qualities of art-making, one may say.

[Wendy says] I take the same attitude in the digital. When I see your images I see poetry and I want to hold those images and relate them to my own perspective. The images below move forward and express some of my place-based seeing (the barred fence around the university, the endless blue sky freedom of this place and the trees, always the trees). Words, that may be important in some arenas, are blurred into near-insignificance or are bounded by the restrictions of metal bars.



[John says] I really like this remixed image. It looks much more interesting. It still looks balanced, which is something I always look for. If art-making is about generating knowledge, a balanced picture seems to make me feel more secure about that knowledge.

[Wendy says] One of the powers of art is the 'seeing' or vision that is not explicit. What I mean is, when I saw the original photos, I immediately 'saw' the bars as a contrast to the organic lines of the trees. Now that the two images are combined it starts the story. However, each viewer can create their own narrative when viewing this image.

[John says] I am glad now that I inserted these images - quite frankly I wasn't sure how appropriate that would be. I now see how this narrative is becoming a dynamic movement forward, to the next perspective, to the next remix. There is a sense of co-production. Emergence. Giving. Emerging. Making. Thinking materially. Thinking across perspectives. Thinking with and through perspectives. Here, in the digital world.

[John says] What fun - writing, painting, (de)constructing, (re)aligning - remixing.

[Wendy says] These collaborations are not for the faint hearted. In the sharing of perspectives there is emergence. The contemporaneity of words appearing simultaneously on this page, only possible with the technology we use, seem to overcome the 'intransigent problems of space and place'². It is through the enjoyment of these spaces that new works can be created.

[John says] We are taking text and artefacts and remixing them in a creative process to make something new - repurposing. New combinations of familiar ideas (Liu, et al., 2017, p. 2) are emerging. Are we on the boundary between learning and research, a liminal space, a space of emergence, of change?

[Wendy says] There is no sense of disorientation as we move in this space, being embodied in our own corners. Is it possible for 'deep place learning' to occur here as we disrupt 'the dichotomies of local/global' (Somerville, 2017) aspects?

[John says] ... as we whisper / mention what we should not / seeing with fresh eyes

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Lighthouse Learning

Rebecca Thomas



Rebecca is an Academic Developer at the University of East Anglia, using play, participatory making, and other unconventional methods to foster a curiosity-driven approach to teaching among academic staff. She convenes two modules within the MA in Higher Education Practice, 'Exploring the Academic Role', and 'The Role of Research and Scholarship in Teaching and Learning'. Rebecca has curated several exhibitions on the theme of Learning and Teaching, and has recently set up "The Lighthouse", an independent space and archive located in Norwich, focusing on play-related pedagogic practice. She is also a practicing artist. Here is a link to her work on Creative Learning from the perspective of an academic developer <https://sites.google.com/site/processesoflearning/>

Until about a year ago I had spent my working life in and around art education, including applied versions of art and design when running degrees in photography for industry at the University of Hertfordshire (2007 - 2017). In my present post as an academic developer I have been keen to try and use art-related practices and ideas with colleagues whose background can be *anything but* the visual arts - lecturers in fields such as Accountancy, Chemistry, History and Nursing, amongst others. Working with people with such a diversity of experiences, interests and skills it can seem very difficult to find ways to engage all of them at the same time, in a group context. One way to do this, however, is to design group projects which draw on the visual arts but which are sufficiently open enough to allow for a range of different, distinct interpretations or results. There is something of a cliché in art education around the idea that in art there is no right or wrong, true or false, but although this issue might benefit from rigorous examination, it can nevertheless be useful to hold this playful, open approach in mind when working with people whose backgrounds and present-day concerns are so diverse.



In the recent online forum (March 2018) around 'Creativity in the Making' a wide range of views were raised and considered. Things participants mentioned they had made or encountered included painting, ceramics, Ikea furniture, and food. These examples range, in reverse order, from the directly functional or useful to something done entirely for its own sake, the common ground among these items (for the purposes of our discussion) being their use as mediating objects. One of the contributors to the blog, Paul Kleiman, raised an interesting point about this mediating role, asking if in fact there were physical objects, of any kind whatsoever that might *not* be employed as potential mediator. It's a good question. What one uses as a tool of mediation surely depends on the context, as well as on who the participants involved are, their backgrounds, experience, and so on. A key reason for choosing art-related strategies to operate as a means of exchange (rather than employing just anything at all) is because art is already recognised as an object or activity with an inbuilt mediating function. That is, art, although a specialist area in its own right, is nevertheless regarded as "readable" by anyone interested enough to give it time and attention, whatever their own particular interests and skills. Art is a public thing, made to be received, responded to and discussed by people from all walks of life, not just artists and other experts in this specific field.

When I've asked workshop participants to make meaningful objects from various bits and pieces of materials I have brought along, and/or to place these in "curiosity boxes" to be passed round the room, examined and discussed, the point has been to try and initiate a chain of questions and persuasive interpretations of what people have made. It is not so much a matter of working out exactly what the maker intended by the piece he or she has made - they may not even know themselves exactly what they "meant". Rather, the aim is to provoke an air of curiosity and intrigue in the room, get people to look and think about what is placed before them. To make such sessions work people have to be creative as makers but also as viewers. Another approach I have used to trigger a creative response is to distribute, in workshops, teaching-related questions printed on "prompt-cards", to which participants are asked to respond, using their own specialism as a starting point for a broader exchange.

The Spirit and Wonder of Collaborative Making

Chrissi Nerantzi and Gail Spencer

<https://chrissinerantzi.wordpress.com/2018/03/24/making-is-at-the-heart-of-what-we-do-and-who-we-are-creativehe/>



Chrissi Nerantzi is an academic developer in the Centre for Excellence in Learning and Teaching at Manchester Metropolitan University. Chrissi is the founder of the Greenhouse and the open community #creativeHE. This operates in collaboration with the Creative Academic and colleagues from other higher education institutions in the United Kingdom and further afield. To find out more about Chrissi, visit her blog at <https://chrissinerantzi.wordpress.com/>



Gail Spencer: After graduating in Ceramics, I volunteered at the Coalport China Museum, Ironbridge and for Help the Aged. Taught Adult Education, Blind and Partially sighted adults, patients at New Cross Hospital and set-up a disused pottery facility for physically and mentally disabled adults. Worked in Higher Education for many years supporting the Arts and Computing in Education. I have been a practising potter for many years whilst exploring other creative processes. With a love of houses I am currently renovating an unloved 1850s curtilage building, which is anything from removing walls to laying floors, all seen as a blank canvas for further creative exploration. I have worked in Primary Schools with colleagues both in a supporting role and as a practising artist. Higher education has introduced me to many wonderful people, skills, ideas, groups, experiences and opportunities to become creatively involved on many levels.

Our narrative was created through a series of posts Chrissi made on her blog between February and May 2018. These were subsequently edited and expanded by both authors to make this article for the magazine.

Trigger

When Norman Jackson suggested a dedicated #creativeHE conversation with John Rae around making and the role it plays in creativity, I was excited and started thinking about stuff I could make. I did think about “**making as a project**” as defined by Tim Ingold as a concept that was introduced during the online conversations, but I could also see that through this making project I would hopefully gain a little bit of growth too. There is of course no guarantee for this from the outset but the process of making and reflecting on this helps us identify where we are on this journey and if we are growing, even if it is a tiny bit at the time.

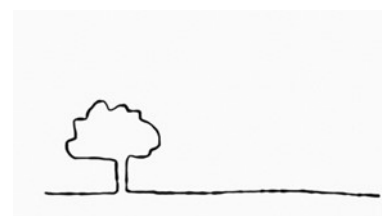
It was almost as if the conversation gave me the permission to make stuff. So I did. More than usual. Colleagues participating online will have seen very little of these activities as they were not all shared through the online community. Due to circumstances and preference, I seem to have adopted what I called in my thesis selective participation... (I had explored this in the context of collaborative open learning) for me, like for my study participants, it was an informed choice and should not be interpreted that I was less engaged or disengaged with the theme under exploration even if it may appear this way to some.

We often expect individuals to fully engage online but actually there is a whole world outside the digital that is exciting and stimulates all our senses and creates opportunities for creative expression, making and sharing. We can also look at my reality from an ecological perspective. The seeds for my making activities and reflections on these were triggered by the online discussions but they didn't stay online. Norman at some point said.. “**what we see online is only the tip of the iceberg**” and he is right. If we would live our lives exclusively or predominantly online that would be very sad... Norman also mentioned that we inhabit spaces and we are aware where we are and what we do in these. My presence was much more invisible to others online as I felt that the ecological system of my making creations was primarily offline with some extensions and feelers reaching and connecting with the online world. So this offline magazine is helping me to consolidate my experience and tell more of my story.

Background

In the last few years I have enjoyed spending a little bit of time in the summer with my sister making objects out of clay. I miss my sister a lot for many reasons. She is really good at working with clay and does complex structures. BTW, also a fab cook!!! I seem to like simple and flat stuff, two dimensional mostly when I am working with clay. But I enjoy it enormously and feel relaxed when I am immersed in the creative process. I am transported far far away from reality... in a different world where everything is possible.

Writing is one of my greatest passions, I am not a professional writer of children's stories but I used to translate children's stories in one of my previous lives and one of my own stories was published many years ago. My urge to write has reached the point where I have decided to apply for a Creative Writing Masters course, to devote more time to developing my interest, skills and understanding in this area further. I also love illustrating but I am not a skilled illustrator and lack the confidence to tackle a whole picture book project on my own. I particularly like illustrations that are minimal with clean lines so that readers can use their own imagination to complete the picture. To complete my open picture book project I knew I needed to find an illustrator who was willing to collaborate with me. To engage with the story in a different way, [to add another perspective and voice](#).



I decided to focus my project for the 'Creativity in the Making' #creativeHE conversation around illustrating a story I have written about something that means a great deal to me - the plight of refugee children fleeing their broken country searching for a safer life.

My own parents had to flee their villages in Northern Greece when they were little during the Civil War in Greece and went through many difficulties in their lives, which also reflects my own personal journey so far. I was born in East Germany, then we moved to Greece, when my parents were allowed back into their country, our country and for the last 19 years this August, home is the United Kingdom where I am bringing up my own family. Stories of migration touch me deeply. In the last few years, many have tried to escape war zone in Syria and elsewhere around the globe and are making their way through the sea to Europe. Many lose their lives. Children grow up without their family and love. The pictures in the news, the endless photographs of death and pain are strong reminders that hurt my heart deeply and I was reminded what my own parents must have gone through. I felt that I needed to do something creatively. To raise wider awareness and identify ways we can all help children in need. As an open practitioner and researcher as well as past translator of children's literature, I reached to writing an openly licensed story.

About the story & this book...

This open picture book was created to raise awareness of children in need and find ways to help them. Experiences in the family of the author and current traumatic situations in many parts of the world, triggered the writing of the story as a response, a personal voice that was united with the illustrator's voice and became this picture book.

The pictures are part of the story and accompany the reader to immerse themselves into the story through creating opportunities to extend their interpretation of them and contribute to them. This is the rationale behind using this type of pictures. So feel free to add to the pictures, personalise them. And please share them back as we would love to see your versions.

In this narrative I will document and reflect on the process of making the book to explore how something like this could be used for learning and teaching. While I have been using story for some years now in academic development and frequently used Storybird for example, this time it will be making everything from scratch.

The illustrated story book, I would like to make during our #creativeHE making conversation, is for children and adults alike. I would love it to be published properly as an open picture book when it is ready. And raise money for charity, or at least raise awareness in this first stage. My purpose for writing the story and making this book is for the education of children, refugee children. Perhaps the Children's University can help. And it would be wonderful if the story could be translated into other languages too.

Colleagues from Bookdash kindly introduced me to the open access picture book creation platform StoryWeaver <https://storyweaver.org.in/> and I have added the storyline there already. The platform will enable me to make the story into an open book and I can look into translations of this work too. So I think I am in a good place to start. During our #creativeHE conversation, I would like to focus on the making of illustrations for the book.

Eureka!

It didn't take me long to find a fantastic collaborator - artist Gail Spencer. I am so so excited she said yes. I know Gail from Manchester Met, from our Cheshire campus. We are colleagues and have worked together in the Greenhouse to put together creative activities for our academics to consider in their teaching. I knew we worked well together and she is always smiling and open to ideas and suggestions. I suspected that she might like this little project and asked her. As our Cheshire campus is closing at the end of 2019, I felt that this little project might give Gail something exciting to look forward to, to co-create and perhaps open up future opportunities for her.

We agreed that our collaborative illustrations/collage for the open picture book will be made available under a creative commons licence, via Storyweaver initially.

For now, I have created an empty version of the picture book out of ordinary paper using my basic book making skills and tools and copied the storyline into it. This will help me start thinking of illustrations for the 12 scenes. Gail is making hers and we will be meeting soon to share our initial thoughts and ideas and bring them together. I have seen some very first drafts and I love them! We are building a shared platform for our book making project: a necessary first step in any collaboration to make something.

7 March 18: Gail and I have been working on conceptualising ideas for the pictures, materials and style. We met today and only needed 30 mins to agree on a style and construct over 50% of the scenes. We had given ourselves the target of 3 scenes for today but we have 8. A massive achievement. I think we now have a good understanding of each other's tastes and we experimented with possibilities. This exploration was really useful to find a way forward that would work for both of us. We went for a cut-out style and lots of empty space that could be filled by the reader. And different coloured background. We decided with a "less is more" approach that helps the imagination imagine. (Later we decided not to go with this idea).

Gail and I both felt that we needed to give ourselves time for our ideas to mature and stabilise and can see that in this initial stage our ideas are still very liquid and dynamic and we are definitely prepared to make changes to bring this project to fruition. We said that we would probably have finished draft in four weeks. We said this before we started. After what we achieved already, it is very possible that we will have a first full draft much earlier. A sign of a smooth collaboration? I am very excited! While we work on this project, I am also thinking how such an activity would be of value for students. How could it work with students from two disciplines? What could the purpose be? I suspect there would be individual and collective benefits and I would love to explore this further when we have finished working with Gail on this.



14 March 18: A relatively short meeting with Gail as we have now agreed on style. We discussed details for some of the pictures and have now a full set ready as ideas in our heads and described on paper. We know where we are going. The path is there in front of us and some pictures are growing and taking shape already. I can see it all in front of my eyes already and our approach is definitely, "less is more". Instead of adding we take away and it is a liberating feeling.

I suspect that in a few weeks, we will have it all together. In my head I can see it all. I am now thinking about the colourful backgrounds and if these could be added digitally. I will need to seek some advice on how to do this. Adding the backgrounds digitally will give us even more flexibility but also harmonise everything so that it all goes together nicely. For now I am adding here some sample pages, not ready but you will get the idea... there is plenty of room for the imagination to wonder and that is the plan. We would like our readers to engage with the story also through visualising it themselves in the pages of the book. Will it work? We will see.



22 March: We met again today with Gail and the path we are now going is clear. We refined a few last details and agreed how to tackle some of the more challenging pictures. While teddy was going to be bigger and brown-er, we actually like him now hanging from the page as he is. I feel that Gail had such a good idea of assembling Teddy on the page. This approach we realised will also help us with some of the other pictures. So can't wait to see them all together next week. We decided to scan the pictures in on a white background and then add colour to them digitally. This way we will be able to select what we feel works best and harmonise them throughout the story. I can't wait.

28 March and 11 April: We met and finalised all pictures. It was a very smooth process and we now have all 12 pictures. It feels good. We decided to scan these in on a white background and also take some photographs so that we can then see what we can do digitally. We decided to do this so that we can find backgrounds that really go well with the pictures but also that link nicely to each other so that it feels like a collection of pictures that go together and tell a story. It is truly amazing what we have achieved so far and I am now looking forward to working with Gail digitally on the pictures and putting the book together. Can't wait to see it as a book!

2nd of May: We met again and Gail had already digitised all the pictures. In a short meeting we managed to agree backgrounds, size and locations of the images on each page. It was amazing. While we initially seemed to look at pale backgrounds, we felt that the vibrant backgrounds actually added more emotions and drama, so we decided to use bright colours.

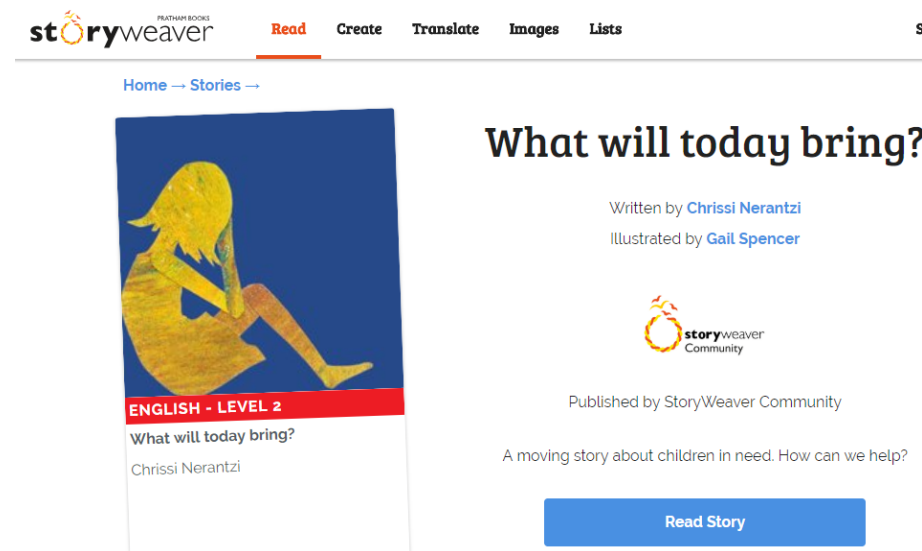
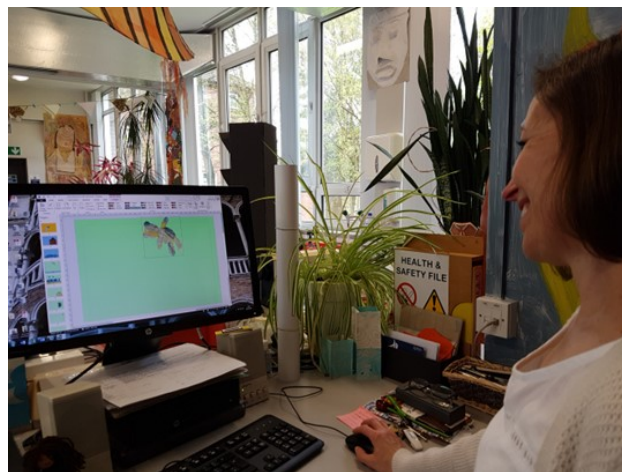


Working with the wonderful Gail Spencer

3rd of May: This is the day when Gail uploaded all the pictures to Storyweaver. It took us a little while to fix some of the images, as we didn't check the dimensions in advance (but it was a useful lesson for future projects). An amazing feeling filled me when I pushed publish and it was suddenly there. Really really enjoyed the process of working with Gail on this and am looking forward to seeing where this little project will take us.

Our published open picture book is now available here. Thank you Gail for doing this together and Dr Meriel Lland and Amy Turner for their help during the creative process.

<https://storyweaver.org.in/stories/28132-what-will-today-bring>



one go... but we didn't. We gave each other space to develop our thinking and mature the ideas that were outputs from our initial ideas and the conversations we had. While, I have to admit, that I did want to see it finished and get all the pictures together, we were patient with each other and knew that doing a step at the time would work better for both of us and for the ideas to grow and mature, as I already mentioned. I was looking forward to our weekly meetings and getting a strong sense of satisfaction when we both realised that we made a little bit of progress."

Gail: "Working with Chrissi is an absolute gift, she is naturally enthusiastic, creative, engaging with a shared approach to achieving a goal. I am not an illustrator but relished the opportunity of developing ideas to see if we could achieve a result. Chrissi is supportive and I looked forward to our weekly meetings so we could share, discuss, edit and move forward. Finding a way of illustrating text, to reach a younger and wider audience, needed to be a combined effort of sharing our visual thinking. We shared ideas at every stage, and agreed on a slightly anonymous style, to enable the reader to mentally illustrate further. To talk openly was important, and helped the project to move forward in a smooth way. A shared love of creative processes made this feel effortless, and to see the book published online gave an immense sense of satisfaction. I was out of my comfort zone for most of this journey, but the collaborative process with Chrissi was so exciting. I have learned much."

Our first review

"What will today bring?" by Dr Chrissi Nerantzi is a picture book aimed at refugee children in host countries. The theme is current and relevant. Dr Nerantzi travels us to the moving reality of a little girl who following a journey through the seas, finds herself alone in a refugee camp searching for her parents and Hope. Does the girl find her parents? Does she find Hope? Dr Nerantzi's simple use of language is full of imagery, creating a captivating narrative that triggers profound emotions. The powerful messages are supported by the wonderful illustration by Gail Spencer. I would strongly recommend the book to all professionals working with refugee children." Dr Gerasimos Chatzidamianos, FHEA, CPsychol

Acknowledgements

We would like to thank Prof. Norman Jackson, his interest in this project and the opportunity to share our collaborative story more widely. We are grateful for his valuable suggestions and comments on the draft of this article. Furthermore, we would like to thank Dr Meriel Lland and Amy Turner for their help during the creative process, as well as Dr Gerasimos Chatzidamianos and Dr Eythymia Karaouza for helping Chrissi to translate the story into Greek, which is now also available as an open book at <https://storyweaver.org.in/stories/35785-tee-tha-yeeneee-seemera>

Reflections on collaborative making

Chrissi: "We worked really well together. It was a balanced relationship. We both enjoyed the process of sharing and developing ideas and also had fun together. We were open and honest and did not pretend when something didn't work. I think this was important in bringing this project to fruition. We both felt that we wanted something simple, something that helped others to engage with the storyline and use the pictures as mental hooks. We could have done all the pictures in

Who is More Creative, the Gardener who Created the Water Garden or Monet who Painted it?

Norman Jackson

Water lilies are the most beautiful and generous flowers: they all but disappear in the winter but around May the first lily pads appear and by June the first flowers begin to show. Eventually a significant area of the pond is covered with thick green pads dotted with flowers and these continue through July and August before dying back in late August and September. They provide shelter for fish and enable the heron to reach the fish. They help the dragon flies and damsel flies lay their eggs in the water and help reduce evaporation - something that is very noticeable during this long hot summer. They are an important part of the pond ecosystem but they also transform the pond with their vivid colour and movement in the wind.



It's little wonder that artists like Claude Monet have been inspired to paint water lilies floating on a reflective pond. In 1890 he bought a house at Giverny and in 1893 purchased a meadow near the property which contained a pond fed by the Ru River. He hired at least six gardeners who gradually shaped the meadow into a garden of willows, irises and water lilies specially imported from Japan. He painted the gardens around the house and then turned his attention to the water gardens, painting them repeatedly between 1897 until his death in 1926. In all, he produced more than 250 oil paintings of his lily ponds and admitted "These landscapes of water and reflections have become an obsession." Monet's water garden and one of his paintings are shown below.



I would not be surprised if the gardener who built my house and designed my garden had Monet's paintings in mind when he made his own water garden, but I am one of the fortunate few to see his vision realised over 40 years later.

This summer I have been making a series of short films about my garden and one of these was about the water lilies <http://www.normanjackson.co.uk/garden-notes> , https://www.youtube.com/watch?v=XestY_FEQjk

Making my film prompted me to think, who is the greater creator? - the gardener who designs and makes the water garden stimulating nature to enable plants and animals to recreate his living cultural artefact decades later, or the artist who in a few hours or days makes an artefact that will never live or change. Perhaps it's not something that can be judged, both involve imagination and creativity and that is enough. Perhaps also it's about what we value. Even though I know a Monet painting is greatly valued as a piece of art and is worth a lot of money I know that I would rather experience the water lilies on my pond... or any pond for that matter, than experience one of Monet's paintings.

Making my film also prompted me to think about the way one artefact, the product of someone's creative efforts, can inspire the production of another, in a different context, time and medium. A garden made by a gardener many years ago, can inspire a painter to paint a picture, a photographer to take photographs, a film maker to make a film, a writer to make a poem and a musician to make his music. These are some of the affordances that can be found by people who care about such things when they encounter the original artefact.

I wondered how Monet would have painted my water garden and came across an app called Dreamscope that contained a Monet artist filter. Here is the digital painting that the app thinks Monet might have created.



I posed my question in the forum. *Who is the more creative? The gardener who lays out nature to recreate his cultural artefact decades later, or the artist who in a few hours or days makes an artefact that will never change?*

[Kevin Byron](#) At first sight neither! - they are both artists and scientists working in different time-scales, and time should never be a factor in the assessment of creativity. The artist and gardener both use different technical tools to shape an imagined landscape. Whilst a painting may appear static, it never is in the eye of the beholder, for which it was created. If I was pressed however I would argue the artist is more creative because they are restricted to two-dimensions in order to simulate a three-dimensional experience. The artist also always starts with a blank canvas, whereas the gardener is guided by what is already in their canvas, even if that leads to a complete transformation.

[Norman Jackson](#) I think Monet was also guided by what was there in the sense that he started with what he saw and felt and represented this, many times, on his blank canvas. I guess this is also about value creation and what and why it is we value what the creator has created. Of course Monet's paintings are worth many millions of dollars to some people .But, while I enjoy Monet's paintings of water lilies and appreciate their cultural significance and him as a great artist, from the point of view of an organism valuing another organisms involvement in encouraging and sustaining life they are of little consequence.

[kevin byron](#) Yes that's true of figurative and landscape art, but not so of abstract art. Value is arbitrary inasmuch as it is determined by committee! - the artist Boronali demonstrated that: <https://curiator.com/art/joachim-raphael-boronali/sunset-over-the-adriatic>

Learning through Making & Constructivism

Oliver Quinlan



Oliver is a writer, researcher and educator. He has been a school teacher, a university lecturer, and run digital education and research programmes for UK charities. He is Senior Research Manager at The Raspberry Pi Foundation, leading the foundation's research into learning and teaching in digital making and computing. His book, 'The Thinking Teacher', was published in January 2014 and takes ideas from business, the arts and other varied fields to challenge assumptions and paradigms in education. Throughout his projects and writing technology and learning have been a strong theme, particularly the way in which new and social technologies affect how we learn and work.

Learning through making.

Learning through making is part of the fundamental philosophy of 'Constructionism' behind Papert's ideas¹, and key to a practical subject like Computing. On the surface it seems very simply, in a subject based on making things, students learn by doing just that. Yet dig deeper and the idea of learning through making has some much deeper implications to explore.

Making learning fun

It's pretty clear if you know young people that making is something that is going to engage them. Active lessons always get the popular vote from classes, especially if they let students make choices about what they work on. The sense of achievement you get from making something and sharing it with others or taking it home is pretty motivating too. There's always a few who would rather a 'theory lesson', but the engagement you get from making is usually a powerful motivator. It's hugely important to get people engaged with learning for it to be successful, but learning is more complicated than simply paying attention to something. Seeing learning through making as only a way to engage people would be missing something much deeper that. For proponents of Constructionism it's also about how making interacts with the way we develop understanding.

From concrete to abstract

Our culture of education in the west can often be very focused on the cognitive- the abstract thinking that can be clearly defined in learning objectives, exams and books. We can tend to think of formal education as the process of coming to understand abstract ideas, with abstract ideas being the most important level of understanding that can then be applied to our everyday lives. Young children usually start learning about numbers through physically playing with concrete objects such as blocks, counters and toys, but the aim is for them to move on to being able to discuss and manipulate numbers as abstract ideas. Dealing with concepts totally on an abstract level is hard, and often children have to return to these concrete methods to support their understanding. It takes time before children can add and subtract without the convenient aid of fingers to count on, and even when this is mastered they often return to counters when learning about the more complex concept of division. This trajectory from understanding concepts in concrete, real life terms towards being able to explore them in the abstract is well explored in the work of Jean Piaget, almost universally taught in teacher education courses across the western world.

Seymour Papert of Massachusetts Institute of Technologies developed a theory of learning based upon Piaget's constructivism. Note that Papert worked with Piaget in Geneva in the late 1950's and early 1960's. In his own words: "Constructionism—the N word as opposed to the V word— shares constructivism's view of learning as "building knowledge structures" through progressive internalization of actions... It then adds the idea that this happens especially felicitously in a context where the learner is consciously engaged in constructing a public entity, whether it's a sand castle on the beach or a theory of the universe (Papert, 1991, p.1). Because of its greater focus on learning through making rather than overall cognitive potentials, Papert's approach helps us understand how ideas get formed and transformed when expressed through different media, when actualized in particular contexts, when worked out by individual minds. The emphasis shifts from universals to individual learners' conversation with their own favorite representations, artifacts, or objects-to-think with.

Affective learning

Whilst we see the cognitive side of learning as key to understanding, we tend to see the affective, or experiential and feelings based, as something useful for making learning engaging and memorable, but not a fundamental part of it. Papert saw this differently. In 'Mindstorms' he vividly relates the affective experience of playing with cogs and gears as a child, and how he came to an understanding that machines could be both very structured but also creative ways of interacting with the world. I remember quite vividly my excitement at discovering that a system could be lawful and completely comprehensible without being rigidly deterministic.

Seymour Papert (Mindstorms)

Papert writes about changing his worldview, not only in terms of gaining knowledge, but in gaining a new relationship with knowledge. Manipulating and exploring the concrete objects of gears allowed him to develop an affective understanding of how machines work, and that these complex constructions are knowable and understandable. Mark Surman, CEO of Mozilla describes this memorably as seeing the 'lego lines' in the world; the visible joins that help you understand that something was made by a person, and that with the right learning that person could be you.

Learning as becoming

Such a change in understanding is a bit of a shift from the way educators are often encouraged to see learning. It's a difference metaphor for what learning is. Much of the time our language about learning is based in what Prof. Anna Sfard calls the 'learning as acquisition' metaphor, where learning is seen as discrete blocks of content that can be gradually acquired. Paulo Friere pejoratively called this the 'banking model' of education. There are other metaphors for learning though, and when exploring the potential of learning through making it can help to think about the 'learning as becoming' metaphor, the idea that we learn in order to explore and develop who we are as a person, and the way we see our identity fitting in to the world.

New tools for learning

Much of this could be an argument for learning through experience, but for Papert it was using computers that he described as being incredibly powerful. Why? Computers allow us to manipulate abstract concepts in a way it simply isn't possible to do in the physical world. Logo may seem like primitive software to us in 2016, but Papert saw its potential to allow children to actively manipulate concepts such as angles and geometry. This made abstract concepts accessible to children to manipulate and understand by feel, much as a sand and water tray in the early years allows children to explore their understanding of basic physics. We expect children to move on from this playful, exploratory approach to learning as they get older, but perhaps this is only because we lack the tools to make more sophisticated concepts concrete and accessible to them to manipulate. The power of computers for learning is described in Papert's writing not as being a way to deliver content to children, but as a tool they can use to explore and manipulate previously abstract concepts in a concrete way.

Harnessing the tools

Making is often a fun and engaging way to learn. Yet its power can go beyond engagement and towards a very different way of learning and understanding the world. It takes a shift in how we think about learning and in the way we encourage young people to use computers to understand the world. These days we certainly have more powerful and sophisticated tools accessible to young learners, perhaps the biggest challenge is understanding how they can be used not only to engage, but to learn in new ways that are both effective and affective.

Source

Article posted March 11, 2017

<http://www.oliverquinlan.com/blog/2017/03/11/learning-through-making/>

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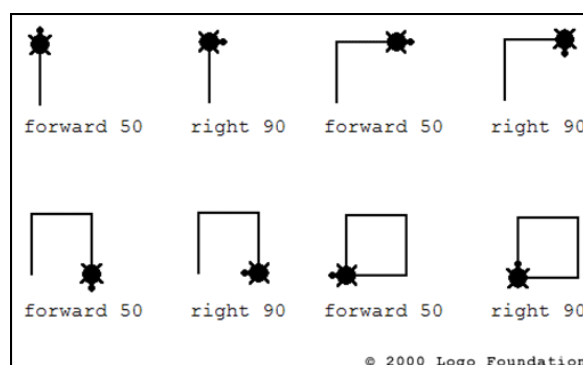
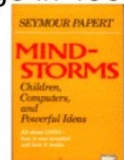
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<http://blog.core-ed.org/blog/2014/08/the-logo-turtle-and-seymour-paperts-mindstorms-thirty-four-years-on.html>



A Brief History of Logo

- Seymour Papert and Marvin Minsky co-founded MIT's Artificial Intelligence Lab in mid '60s
- Papert and others developed the Logo programming language in 1967
- In 1980 Papert published *Mindstorms*



Go Make Something! The growth of the Maker Movement

Declan Cassidy



Declan is Director of MakerClub. MakerClub creates exciting, digital courses that teach people design, coding and electronics. We use emerging technologies like 3D printing to make the experience as hands-on as possible and believe that everyone should have the skills to remake the world around them.

The Maker Movement is a mindset; one that typifies the wonders of the 21st century while giving us hope that the turbulent times we're currently living through may just be the growing pains of a more sharing, honest and productive society to come.

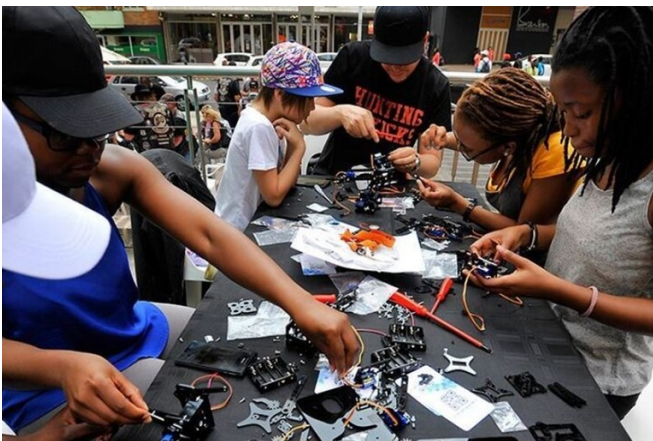
The movement is changing how we think about education, our relationship with technology and the underlying way we understand the world. The power of 'I' is being replaced by the power of 'we' as people wake up to the fact that not only can they achieve more themselves, but that together, anything is possible.

If emerging technologies like 3D printing and micro computing are the Maker Movement's engine, then the internet is its fuel, allowing people to share their successes and perhaps, more importantly, their proud failures. Whether it's robotics, traditional crafts or product design, this is a grassroots DIY movement that is powered by free 'how to' videos, the human need to create tactile objects and a wider rebellion against over-consumption.

Our company, MakerClub, was born out of this hope for a better future. Our aim is to create a platform that gives everyone the skills to develop their own problem solving products and that by teaching people the skills of design, coding and electronics; we can empower them to build a better tomorrow. This vision is being made a reality in the homes and schools of millions of people around the world, while 'makerspaces', communal workshops that encourage collaboration and cross-curricular production, spring up on every continent. This is a global phenomenon.

The main tenets of the movement, as laid out in Mark Hatch's seminal book, *The Maker Manifesto*, encourage people to; make, share, give, learn, play, participate, support and change. This is a human-centric ethos that embraces technology, but only to augment and super-charge a person's own creative talent rather than be superseded by a machine.

Paired with crowdfunding, the Maker Movement has been the perfect storm for innovation, inspiring people to produce and market their own products that solve human-centric problems that are overlooked by big business. A tidal wave of new ideas and hardware is being released every day, not by big corporations but by small teams that value open-sourcing and honest storytelling.



Young people are learning to shape technology rather than be ruled by it, the elderly are being encouraged to share their boundless wisdom and communities are being created around shared workspaces. People are waking up to the limitless ways in which technology can not only make our lives easier but also allow us to connect with each other in surprising ways.

If you believe the media, the future is full of killer Artificial Intelligence, efficient robots replacing human workers and a 'technopocalypse' that is fast approaching and is destined to destroy mankind. The truth could not be more at odds with that vision. This is an exciting time to be alive and the Maker Movement is a sign that things might be brighter than we think.

Now, go make something!

Source

<https://creativeconomy.britishcouncil.org/guide/go-make-something-growth-maker-movement/>

Practical ‘making’ is a crucial part of the creative economy

John Newbiggin



The 18th century Swiss philosopher and rationalist, Jean-Jacques Rousseau, famously wrote “If, instead of making a child stick to his books I take him to a workshop, his hands work to the advantage of his intellect, and he becomes a philosopher, while he thinks he is simply becoming an artisan”. This observation, from the early days of the European Age of Enlightenment, speaks well to our present situation as we begin to reconnect fields of study and expertise that have been allowed to become separated into specialised silos over the last 200 years. It is exemplified by the rapid growth of the Maker Movement and is a reminder that learning practical skills in a working situation such as a workshop or studio is an important complement to formal learning in the classroom. It is also a reminder that the creative economy is not solely predicated on digital technologies but on individual creativity and talent.

Source

<https://creativeeconomy.britishcouncil.org/guide/new-skills-new-economy/>



Creativity and the Making of Creative Academic Magazine

Jenny Willis, Executive Editor

How does the idea of making apply to Creative Academic Magazine?

The making of a magazine is a collaborative process involving the inputs and contributions of many people. In the case of CAM12, it began with the idea of a discussion on the #creativeHE forum on the theme of Creativity in the Making. A series of articles was written to support the discussion which attracted a number of contributors. The conversation itself created some of the content for the magazine. Then a number of articles were written after the discussion by people who were involved in the discussion. All these materials were assembled, lightly edited and brought together with care in a design that is this magazine. It feels very much like a process of making involving the generation of content and the weaving of the content together to form a sort of narrative about our exploration.



In this article I want to offer my perspective of making the magazine as Executive Editor responsible for creating the final product - the cultural artefact that is the magazine, which is more than the sum of the individual parts. One of the ways I try to achieve this is to add my own reflective pieces that complement and add to what has been commissioned, pulled from existing sources or offered voluntarily.

Some questions and assumptions surrounding the editing of CAM

What scope is there to be creative when editing an issue of Creative Academic Magazine? This was the question that haunted me as I began to assemble CAM12, *Creativity in the Making*. I realised that my instinctive response veered towards a pessimistic “Very little!”, but why? I needed to take a step back and reconsider some basic assumptions.

First, what did I mean by ‘creative’? Was I confusing the notion of absolute novelty with relative novelty? Did an edition of CAM merit the description as being ‘novel’ even if the concepts it embraced had been rehearsed elsewhere? Here, I was approaching Paul Ricoeur’s¹ differentiation between reproduction and production, what Max Wartofsky² sees as a hierarchical progression from primary to secondary and ultimately tertiary artefacts, something to which I will return later.

The very term artefact unsettled me: each issue of CAM follows a template which I initially created, but was an individual edition a product or an artefact? As an integral part of the Creative Academic project, I felt it *should be* creative but was it? Unwittingly, I was making a negative judgement and devaluing the ‘product’, with little thought to the process of its production.

These and many more questions reminded me of the value-laden minefield that is creativity. Whether it be dismissed disparagingly as ‘apple pie and motherhood’ (Edwards et al.³) or recognised as a political symbol of cultural capital (Bourdieu and Passeron⁴), however we interpret and value creativity calls for personal choices which reflect what is important to us at a given time.

Conceptualising the process of making a magazine as an ecology

To answer my questions, I needed to rely less on instinct and more on an objective analysis of the process of editing the magazine. For consistency, I drew again on a model devised by Jackson⁵, which I had used in our on-line December 2017 #creativeHE discussion. Norman also uses this conceptualisation elsewhere in this edition of CAM.

The production of each magazine is a physical manifestation of my interaction with a sub-culture of my environment: members of the Creative Academic community and other interested parties. It is perhaps because I recognised this shared responsibility that I was initially hesitant to claim responsibility for being creative. On reflection, this is another misguided assumption, based on my era when we learnt and worked alone, ignorant of the value of collective interaction. As a teacher, I encourage such interaction but bizarrely was failing to apply the same standards to this project.

Figure 1 (overleaf) begins by identifying the *purpose* of creating an issue of the magazine: the proximal goal is to investigate or conduct a professional inquiry into a specific aspect of creativity to produce a themed edition, whilst the distal aim is to contribute to the whole Creative Academic project of furthering our understanding of creativity, particularly in Higher Education.

This leads us to (2) the *context* in which Creative Academic was established. My own research in the area dates back nearly a decade⁶, to a time when it was becoming increasingly acknowledged that prejudices around academic credibility were potentially detrimental to the nation's creative competitiveness and industries were calling for change. One colleague put it like this:

some connotations of 'creativity', such as imagination, originality, unorthodoxy and fantasy, appear in tension with important cultural values in HE about respectability and rigour of knowledge generation; and with needs for conformity, standardisation, accountability and risk aversion in our institutions. (Tosey⁷)

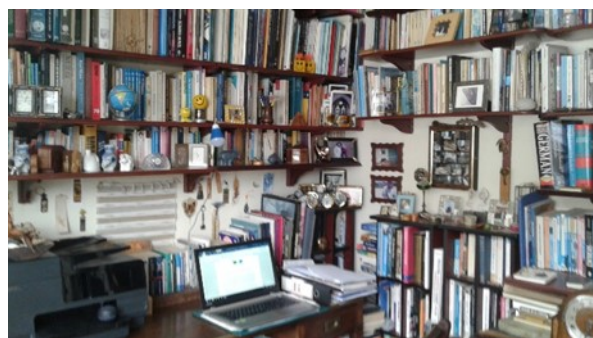
At the time, research focused on the value of creativity to industry, whether creativity could be taught and how to motivate learners to be creative when there were so many other priorities for HE. Today, whilst we are still toying with many of these issues, my sense is that our interest has moved more towards affective dimensions such as the individual drive to be creative and its social value in helping and enabling others to express their creativity?



Figure 1, Analysis of the creative process using Jackson's (2016) model

The *affordance* (3) is the opportunity an edition of the magazine offers to explore, with other people, a specific aspect of creativity, in the current issue, the process of making. The theme is determined through discussion with members of the team, and often derives from a recent project or discussion, providing a linear thread. Today's *resources* (4) are rich, thanks to the ease of electronic communication. Through email and the internet, we are able to liaise with contributors, research and develop our ideas; each of us works on a computer to write and illustrate our articles; I use Publisher to produce the magazine then convert it to PDF for publication on our website; Norman and I rely on Dropbox for exchanging the dense files that represent each edition. These are the mechanical resources, but equally important are the personal qualities that each participant brings: their motivation, knowledge and skills. My role is to fit these together in such a way as to do justice to the time and thought that each has put into their contribution. It is not always easy, as the quality of contributions varies, and some inevitably appeal more than others. I need to be impartial and suppress my personal feelings and opinions.

The *spaces* (5) in which I produce the magazine are both physical and intellectual: being retired, I spend a great deal of time in my study, a comfy, book-laden space where I have mementos and all the equipment I need to work. The most important space, though, is my 'head space', the ideas and emotions that I draw on to create the final magazine. I guess that this is similar to the spaces occupied by each of the contributors to an edition, mine are just the final stage of the process.



The *relationships* (6) on which the magazine relies are paramount. Without a strong network of willing contributors, there could be no magazine. In this issue a new relationship with Dr John Rae was the catalyst for the #creativeHE discussion which generated much of the content for the magazine.

Over the lifetime of Creative Academic, Norman's work as Commissioning Editor has resulted in our having contacts around the globe, both writers and illustrators. We have forged alliances with other organisations who share our interest, including Gillian Judson's *ImaginEd*⁸ and World Creativity and Innovation Week⁹, and contribute mutually to them. There is a triangular refining of relationships, from the wide range reached by Norman through his past and evolving contacts, down to the smaller number who comprise the contributors to each edition of CAM. Once again, I am conscious of my role more as a conductor, bringing together the individual artefacts to produce a performance that is greater than the sum of its parts.

Finally, then, the *process* (7) draws together all the resources, using the technologies, relationships and skills available. From the team identification of a theme for the issue, through to the publication of the final copy, communication and interaction are essential. Norman commissions or invites then filters the contributions, liaising with each author to reach an agreed copy; he has in mind a sequence for the articles, which I then set in place.

This (image right) is what making an edition of CAM actually looks like - here you see me drawing together all the contributions and using my skills and imagination to create the final product. The photo captures all the tension and concentration that goes into this editing role: I am in the liminal space where time and place are suspended until I have reached a point of relative satisfaction.



So how does this ecology enable my creativity?

Returning to my question, "What scope does this give me to be creative?", I need to adjust my definition of creativity: my contribution (other than as an author) relies on my skills and personal dispositions. I was fortunate to have invaluable advice on magazine editing when I first took on the role of editor for Lifewide Learning's magazine, so know how the job should be done. This is a chicken and egg situation, though, and I have to consider whether I took to the job because of my personality: I am a lifelong learner with many fields of interest and relish the new windows opened by each theme. I have immense patience and am a perfectionist. Even if an article does not appeal to me or is badly written, I do my best to ensure that it is error-free and appeals to the eye of the reader. The process of achieving this means setting and sometimes resetting each page so that paragraph breaks fall in convenient places; the spacing between each line and word has to be set and checked; illustrations need to be placed so that pages vary. Are these skills and personal attributes creative? I would say no, but they contribute to a collective enterprise in which we all have a part to play, but someone (Norman) has the vision and I bring it all together.

Emerging answers

What, if any, answers does this analysis of the process of editing the magazine provide to my question of whether there is creativity in the making? It is by now clear that my initial scepticism was born of a limited perception of what creativity is: I was stuck in the rut of equating it to a product, but one that had to be an artefact not functional. I recognised the collective input yet was failing to appreciate the importance of co-creation and the process of moving an idea to a new state. As I read through the contributions for this magazine, I was struck by a number of theories that shook me out of my ignorance.

Gauntlet¹⁰ talks of making as connecting, an issue that has run throughout this account of editing the magazine. She identifies the dimensions to this: connecting ideas or materials, the social element, and how sharing leads to increased engagement. This is a recurrent theme in my analysis.

Whitton¹¹ describes imagination as a co-created phenomenon. Each edition of CAM exemplifies this, culminating in a product that records our collective ideas. As such, we are demonstrating Dellas and Gaier's¹² notion of moving an idea from one state to another through the use of our respective imaginations.

Fundamentally, I was guilty of focusing on the product rather than the process of creativity. Ingold's¹³ differentiation helped me to appreciate the difference. I can now envisage this process of co-creation (Figure 2, overleaf). In this image, we move from individual, micro contributions to the final stage where these have come together to produce the macro result.



Figure 2, Making CAM: a process of co-creation

In fact, figure 2 is only the first cycle in the process of creation: it should include a second spiral of creativity, leading on from point 8. For production of the PDF is only the trigger for further acts of creativity as Norman goes on to share the magazine on his blog, LinkedIn and elsewhere, stimulating new perspectives and ideas.

An alternative way of viewing this process is to use Wartofsky's² progression from primary through secondary to tertiary artefacts, and Rocoer's¹ reproductive/productive imagination, Figure 3. Here, I build on Norman Jackson's analysis in his article above, Making a Painting.

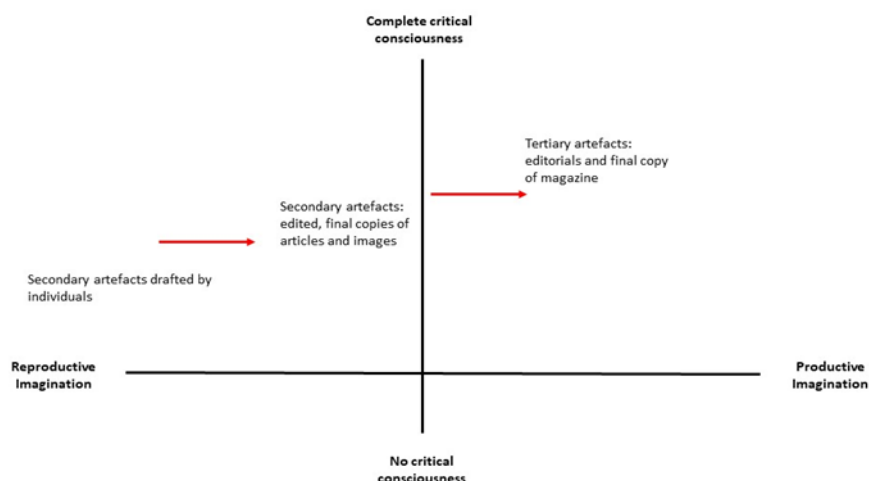


Figure 3, Making CAM: progression from reproduction to production

When viewed thus, I am able to address the question of whether creation of an edition of CAM is evidence of reproductive or productive imagination. I suggest that all contributions demonstrate critical consciousness, hence no action falls below the horizontal line. They are secondary in so far as they go beyond being simple tools that affect the environment to being reproductions of skills or information upon which we can reflect. Through the editorial process, these secondary artefacts are transformed into tertiary artefacts which transmit ideas and can alter the way we perceive the world.

In conclusion, through a process of objective analysis (Figure 1), I have been able to explore different conceptualisations of creativity and come to appreciate Creative Academic Magazine as an example of co-creation which merits its own place in the unfolding exploration of this fascinating subject.

Finally, though, I return to the notion that emerges in Chris Tomlinson's blog of his daily creation being a **gift** which makes people happy. Joy Whitton, too, drew attention to giving as a catalyst for creative expression: when asked to comment on Chris' porridge art in the context of Ricoeur's model of reproductive and productive imagination, she wrote to Norman:

I think in Ricoeur's terms the 'reproductive' imagination borrows from memory in reproducing the gift of love which nourishes the soul. But (and I'm thinking aloud here) maybe it's productive (imagination) in that porridge is the material symbol of that relation to mothering work, but a pale fictional version - it took time and attention to detail to make his beautiful porridge but the performance plays with, and is under no illusion that, it imperfectly represents that gift. The image of the porridge schematises well I think! - the relations between the gift giver, the gift recipient, and what is given.¹⁴

Surely this is the very essence of Creative Academic: our collective dedication and efforts are acts of love, given freely to a community of interested people, without expectations of anything in return, and in the hope that they will not only make others happy, but stimulate further creativity.

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- 14 Joy Whitton, personal correspondence with Norman Jackson (2018)




Some of the gifts from our #creativeHE conversation (CAM 12B)

More from Creative Academic

<http://www.creativeacademic.uk/>

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**creative academic**

Creative Academic champions creativity in all its manifestations in higher education in the UK and the wider world. Our goal is to support a global network of people interested in creativity in higher education and committed to enabling students' creative development. Our aim is to encourage educational professionals to share practices that facilitate students' creative development in all disciplines and pedagogic contexts, and to connect researchers and their research to practitioners and their practice. Our ambition is to become a global HUB for the

Google+ Discussion Forums

<https://plus.google.com/communities/110898703741307769041>

**creativeHE community**
Creativity for Learning in HE course & community
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Ellie Hannan • General stuff, announcements

6d

Hello everyone! For those of you with an interest in digital learning and teaching, myself and +Chrissi Nerantzi are hosting a Wildcard event this afternoon (1:30-3PM UK time) called the #101creativeideas challenge.

It is part of the ALT Winter Conference and the idea is to create and share ideas for creative digital practice in learning and teaching!

You don't need to register, just go to <https://alt.ac.uk/online2016/sessions/101creativeideas-challenge-75>



+1 1

Chrissi Nerantzi • Thank you Ellie. Join us if you are around. Thank you for all your wonderfully creative ideas so far.


Chrissi Nerantzi Owner • General stuff, announcements

Hello everybody,

Nassi (15) has created an advent calendar for some daily inspiration. Please access <http://www.celt.mmu.ac.uk/advent/index.html> to unlock your daily star.

Feel free to share with others. Thank you.

Chrissi from the #greenhouse

**AC16**
celt.mmu.ac.uk

+1 6

francisco j. santos: Nice and inspiring. Thank you Chrissi.

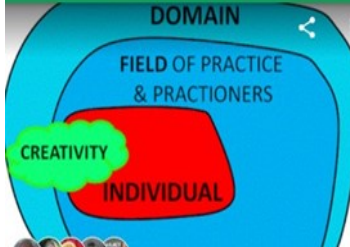
Sandra Sinfeld Moderator • General stuff, announcements

2w

#lovelid - loving this invitation! Thanks #clmoo!

Originally shared by Kevin Hodgson

<https://plus.google.com/communities/113507315355647483022>

**Creative Academic**
A space for people working or studying in higher education to share their thoughts and practices about creativity in higher education

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Norman Jackson Owner • General Information

9w

CREATIVE PEDAGOGIES OPEN COLLABORATION

We have just published our first newsletter .. why not join us in our quest for new understandings for improving our educational practices <http://www.creativeacademic.uk/2016-17-programme.html>

The next #creativeHE conversation October 30- November 4 will explore the idea of creative pedagogies and learning ecologies. <https://plus.google.com/communities/110898703741307769041>

Norman Jackson Owner • General Information

3w

NOVEMBER ISSUE OF CREATIVE ACADEMIC MAGAZINE #7 HAS BEEN PUBLISHED

It contains a number of articles drawn from the recent #creativeHE conversation including a synthesis of the Little Boy Story.

We are intending to publish several more articles in the December update and welcome further contributions on the theme of Creative Pedagogies for Creative Learning Ecologies. Special thanks to contributors +Jennifer Willis +Simor...

