

Beyond Factice
by Ingrid Murphy

Material arts, craft-based practices and technological constructs influence, support and affect each other in multiple possible ways, each with their own historical lineage and associated aspirations or concerns. However much of the current debate regarding ceramics and digital technologies lies in the area of factice, how a thing is made, and much of the research and practice in this field is concerned with replacing a traditional physical process with a digital one. In order to fully understand how emerging technologies will influence the future of ceramic practice, we need to look more at the ‘meta’ of our making, the structure that exists above and beyond the “*making*” itself, to see beyond factice, and explore how our pervasive digital world can augment craft practice, not only in how we make a ‘crafted’ object but how we conceive and perceive it. This is not a new occurrence in ceramic practice or society at large, we have been here before with previous technological advances, to cite Paul Valery from his foreword to Walter Benjamin’s *Art in the Mechanical Age*

QQQQQ

“Neither matter, nor space, nor time is, what up until twenty years ago, as it always was” 1 QQQQQ

What is important for me as a practitioner and a teacher is how we engage and subsume emergent technologies in a way which best preserves and extends the values that we hold dear in ceramics practice. For many, we now live in a post-material world, but I for one adore the stuff of matter, as a maker I crave the state of psychological flow that descends when there is focused engagement between material, process, hand and mind. I work in a much too dusty studio crammed full of odd ceramic objects which in a moments glance can tell me their tales. These are not elements of my practice I want to lose, but I am also keenly aware that much of my time is spent in the virtual realm, a realm which offers me easily accessible digital tools to extend my practice. It is easy to be seduced by the capabilities of ever-advancing technology and the objects they create, the critic and digital theorist Peter Lunenfeld gives us a cautionary note about the technological enchantment of digital objects; “They attract less for what they mean than for the fact that they are.” 2

So it was important from the outset that my forays with digital technologies explored the same territories as my previous work. Contrary to removing me from the elements of factice and materiality, I have used technological interactions to reveal and exploit specific material qualities, such as the translucency of porcelain, the conductivity of gold lustre and the auality inherent in glazed ware.

One such example of this is the piece entitled **##Campanologist's Teacup##**, a collaborative work completed with artist Jon Pigott, initially made for an exhibition entitled **##The Sensorial Object##** and subsequently shown at the British Ceramics Biennale. The piece began with a play on our ceramic habit of pinging objects to understand something of their value. When the bone china cup is pinged a sound sensor activates a series of rubber balls to bounce in upturned ceramic gramophone horns, each horn cast to a different thickness and fired to different temperature to elicit a different pitch. The 'pinger' is rewarded with a random and melodic composition. To view the work in action visit <https://vimeo.com/123617368>

The piece fuses traditional and digital skills, including 3D scanning, 3D printing, mouldmaking, casting and modeling, while the interactive and kinetic elements are enabled by a bespoke handmade electromechanical system based around the Arduino microprocessor board. It is interesting to note that the electro-mechanical elements required as much dexterous skill to fabricate as any of the ceramic processes, witnessing Jon's deft and painstaking skills in soldering demystified my 'black box' mentality to electronics. Skill is an interesting issue when discussing technology. It is cited that it takes 10,000 hours of practice to gain mastery of a skill. This seems distinctly at odds with the 'push and play' sensibility of digital usage, and its world of hyper-mediacy and instant gratification, as opposed to the sense of labour intrinsic in a crafted object. However, in my capacity of teaching across both traditional skills and digital applications it is naive to think that proficient skills in technological processes and their applications are not hard won. Trine Webster, who teaches digital form and fabrication at Oslo National Academy, cites her similar experience in teaching digital fabrication tools to craft students – "I think of digital fabrication both as a craft field and a set of tools that come with their own rules for use. To master the tools requires skills, which take about the same time to learn as it takes to master any other craft".

4

In my own experience teaching and leading the Maker course in Cardiff School of Art and Design, where there is completely non-hierarchical approach to the use of digital or physical processes, I find it much easier to fill a throwing class than I do a Rhino software class. New technologies such as Augmented Reality and Quick Response codes (AR and QR) afford us new possibilities when teaching. Using AR and QR has enabled me to attach digital content to specific objects or tools in a workshop scenario, which when scanned by a smart device give immediate access to relevant content; in essence, objects can become palimpsests of their own making, enabling a viewer to access web based content relating to the objects production, tools can similarly be linked to instructional film. I have also used AR and QR codes within my own practice

The piece entitled **##Things Men have Made with Wakened Hands##**, inspired by the eponymous D H Lawrence poem, juxtaposes the handmade with AR technology to remind us of our deep connections to haptic activity and to the resonance of clay objects. The work is an attempt to reflect the sentiment of the verse, which conjures evocative images of handmade objects 'awake through years of transferred touch [...] warm still with the life of

forgotten men who made them.’ (5). Here the viewer handles a gold lusted replica jug, itself an AR marker which mixes object handling with live projection and embedded film. This is difficult to describe so I will let the writer Catherine Roche describe her experience when engaging with this work : ‘My hands become another’s, my body extends across space and I register a new awareness of my own physicality. My fingers gently examine the smooth, lusted form that I hold, but my gaze is located elsewhere, ahead, on those other hands that have become mine: touching, holding, exploring. And yet it is the coarse sensation of a stoneware body, mediated by my eyes, that meets my touch. I am suddenly connected to both myself and to every person, to this space and another, to a shared continuity.’ (6)

My initial concerns when working with such technologies are shared by many makers – the fear that there will be a loss of connectivity with the material itself and equally a loss of *empathy* for the viewer when engaging with, or experiencing, a digitally produced or enhanced artifact. However, I found by using AR I am able to explore new ways of experiencing the handmade and the blurring of these perceptual boundaries between immediacy, hypermediacy and remediation, enabled a new phenomenological experience of a once-familiar object. Again I will refer to Cath Roche’s description: ‘Here, the self, the replica jug, the live projection and the film mingle to ‘transform’ an everyday ceramic object into a nucleus for expanded empirical and existential perception.’ (7)

It is important at this point to note that our relationship with objects is informed by a combination of physiological and psychological factors. The complexity of this relationship is eloquently explored in Greenhalgh and Crozier’s paper [Beyond Relativism and Formalism: The Empathy Principle](#), 8 and the strength of this relationship is never more evident than in our most intimate and long standing relationships with ceramic objects. Philip Rawson reminds us that pots “refer to not only our immediate experiences ... they embody a living culture.” (9)

The material culture that exists in ceramics offers a rich seam for exploration and, like many of my peers, I work with the material culture of ceramics as much as I work with the material itself. It was through physically and digitally hacking historical flatbacks that I first began to explore the bridge between digital content and physical object, one such example is [Lovematch](#) (originally a Staffordshire tableau of a young couple circa 1850) in which by scanning the object you are brought to the characters’ dating profiles on match.com. I have found a new way to tell tales. More recently I have used 3D scans and prints of myself to physically hack myself into a series of historical wares, literally become a tourist travelling through my own ceramic heritage. I enjoy the play between the historical and the contemporary as well as the real and the virtual. Jo Dahn writes in [New Directions in Ceramics](#).

QQQQQ

Murphy is engaged in research into ways that augmented realities can extend ceramic practice. The result is work that both is and is not dematerialised. ... her approach bridges the divide between solid and immaterial forms; ... ". (10)

Working with interactive ceramic objects has also had some interesting practical applications in my personal life, eg using Internet of Things (IoT) technology, (in this case a heat sensor and a Wi-Fi shield,) I made my elderly and technophobe father an interactive tea cosy. Now when my father makes a pot of tea at home in Ireland it both alerts me to this act and turns on my 1950s Teasmade in Wales, thus making me a cup of tea so I can sit down and ring him on the landline, which is still his preferred form of communication. I think this scenario perfectly sums up William Gibson's comment:

QQQQQ

The future is already here, just unevenly distributed. (11)

QQQQQ

1. Valery, Paul from foreword to Benjamin Walter, 'The Work of Art in the Age of Mechanical Reproduction' (1936 London) pp. 1

2 Lunenfeld, Peter "Snap to Grid. A User's Guide to Digital Arts, Media and Cultures." (M.I.T. 2001). pp.173

3 [www https://vimeo.com/123617368](https://vimeo.com/123617368)

4 Webster, Trine. "Digital Craft- How Do We Create With Digital Technology?" from "Materiality Matters" Eds Borda-Pedreira, Joakim & Steinsvåg (Norwegian Crafts 2014) pp.47

5 Lawrence, D H. 1929. "Things Men Have Made", Pinto, VS and Roberts, W (eds). The Complete Works of D H Lawrence Vol 2. 1954. Heinemann

6 Roche, C 'Ingrid Murphy: Augmented reality and the Sensory Resonance of Ceramic Objects.', Ceramic Art & Perception Issue no. 94 pp. 80-83

7 Roche, C. Ibid

8 W. Ray Crozier and P Greenhalgh Beyond Relativism and Formalism: The Empathy Principle Leonardo, Vol. 25, No. 1 (1992), pp. 83-87 The MIT Press

9 Rawson, P. 2006. "Echoes: An Introduction", in Clark, G (ed). 2006.

Ceramic Millennium: Critical Writings on Ceramic History, Theory and Art, Halifax, Nova Scotia, The Press NSCAD. p 209.

10 Dahn, Jo. 'New Directions in Ceramics' Bloomsbury 2015 pp.150

11 Gibson, William in an interview for "The Science in Science Fiction" on

'Talk of the Nation', NPR (30 November 1999)

Ingrid Murphy (born Ireland 1969) is the Academic Lead for Transdisciplinarity at Cardiff School of Art & Design, where she ran the ceramic department until 2013. Ingrid also leads the University's newly formed Fab-Cre8 centre for applied research in digital fabrication processes. As a practising ceramic artist

Ingrid uses traditional as well as digital processes to make interactive artifacts. In 2015 Ingrid was awarded a National Teaching Fellowship for innovative approaches in art & design education. Ingrid divides her time between her home in Wales and her studio in South West France.