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Enticatypes: exploring how artifacts can entice conversation on craft values in digital making

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Abstract: In this paper we will focus on two bodies of work which used digital design and manufacturing technologies in their inception and production; one produced by an experienced digital maker (Marshall) and the other by a novice maker (Vannucci). We are proposing these sets of works as Pragmatic enticatypes (artefacts that sit between prototypes and provotypes to entice conversation).

We will describe and discuss the outcomes of a workshop where the participants, many of whom were craftspeople and designers, tried through our enticatypes to get under the skin of the dichotomies that can still persist between machine/digital produced and handmade objects. We will exemplify the role our artifacts played in the workshop and the participants' reflections and discussions raised across, and between, the analogue and the digital in relation to: novelty in contrast to originality, authenticity as a mark of respect for tradition, control as a measure of competence and competence as a measure of skill.

Moreover, as first attempt of enticatypes, we will underline their shortcomings in this workshop in order to discuss how very different craft results, both using a Research through Design approach, could potentially lead an audience to different types of conversations, interactions and outcome. And how a highly hands-on group of participants, such as craftspeople, recognises and interprets different qualities in the same artefacts.

Keywords: Craft, Hand-made, Digital Craft, Craft values, Pragmatism, Enticatypes, Practice-based research

Vannucci, Marshall, Wallace | *Small Bowl*, CNC milled rust stained oak [Marshall]; *Traced bowl*, hand carved oak [Vannucci].

Introduction

The continuous evolution of craftsmanship, the shifting role of hands and technologies in the active engagement with materials, and the different values in the production processes from handmaking to digital, has been widely addressed through a body of literature (e.g. Ihde, 1979; McCullough, 1998; Latour, 2008; Sennett, 2008; Pallasmaa, 2009). Moreover, since the late 1990's, digital craftsmanship has been growing as an area of applied research and professional practice (e.g. Bunnell, 1998, 2004; Marshall, 1999; Risner 2012). There is also research undertaken in this area that interrogates notions of hybrid craft using critical propositions and metaphors (Devendorf & Rosner, 2017) and that uses 'lo-fi' prototypes and provotypes to investigate the domain (e.g. Devendorf & Ryokai, 2014, 2015; Kim et al, 2017). In addition, many examples of the artefacts crafted through the crossovers of digital and traditional practices, have been promoted through events and exhibitions: 'Labcraft – Digital Adventures in Contemporary Craft' commisioned by the UK Craft Council (Fraser, 2010), the 'Power of Making' exhibition at the V&A Museum (Charny, 2011) and 'New Craft' (curated by Micelli, 2016), and promoted through innovation programmes such as Make:Shift:Do (Craft Council, 2014-now).

Despite the progress made through traditional and digital practices merging in hybrid artefacts (Zoran & Buechley, 2013; Zoran, 2013, 2015), the outcomes are still controversial for different audiences, including some craft practitioners. If for some they represent innovation and the future of craftsmanship processes, for many it remains difficult to recognise or appreciate the same rigour and skill an entirely 'handmade' artefact encapsulates. Consequently, the values that hybrid crafts embody, are seen differently if compared with handmade crafts, depending on the audience. So what does it mean to make 'by hand'? How does the value of hand-making contrapose or align with digital making; its techniques and praxis? And, perhaps most importantly, is this a useful question to pursue?

This paper will focus on a workshop held to interrogate these questions and sought to provide a foundation for new ways in which handmade values can be understood in a 21st century context. Furthermore, it sits within a broader mission to inform future digital making praxis and potentially the evolution of new breeds of meaningful making technologies. The workshop was based partially on a series of artefacts produced by Vannucci and Marshall. These artefacts sought to represent the tensions, dichotomies and possible similarities between digital and established ways of 'hand' crafting. The driving questions Vannucci and Marshall were asking themselves while producing the artefacts were:

How can we explore craft values in digital making through an artefact oriented method?

How could we begin to explore the tension between the digital and the analogue (handmade) in material artefacts?

The goals of both the artefacts made and of the workshop were twofold: firstly, the authors wanted to understand if attributes from traditional craftsmanship could map onto digital, hybrid objects. Secondly, they wanted to understand which types of artefacts (i.e. provisional, resolved, open, refined, experimental, incomplete, etc.) would better facilitate an open discussion around the theme of craft and handmade values in digital making.
The past record of exhibited digital and hybrid craftworks, significant and valuable in their own right, tend not to actively use the objects to leverage reflections and understandings from these activities into a broader craft value orientated debate. Therefore, this research activity is distinct in that it attempts to think through things (Henare et al, 2007) by emphasising visual/physical characteristics of an artefact as potentially valuable aspects in a workshop context, and by using these characteristics explicitly to explore broader values within craft (i.e. it puts artefacts to work in a particular way).

The artefacts aim to entice conversation, not provoke argument, we will therefore make a proposition of them aspiring to be *enticatypes* : crafted objects that encourage a type of conversation that is different to those that prototypes and provotypes (Boer & Donovan, 2012) foster. The spectrum of the artefacts, their comparison and the contrasts in their conceptualization and production, was used as an opener to debate and further explore ideas of craft and the handmade in future digital contexts, with a range of participants.

In this paper we will present the artefacts we made, the workshop (its structure and the outcomes) and we will discuss the insights obtained and how our artefacts facilitated, or not, the process. Moreover, by presenting the artefacts as potential *enticatypes* and charting how the participants interpreted them, we hope to open a new space to discuss how very different crafted outcomes could potentially lead an audience to different types of conversations, reflections and conclusions.

And in line with this, reflect on the value of this approach as a new way of engaging participants in practice-based research.

What might an *enticatype* be?

At one end of the theoretical design development spectrum: *Prototypes* can be considered predominantly to sit within an instrumental tradition of thinking, focused on usability and ergonomics; "prototyping can be viewed as 'growing' early conceptual designs (..) into mature products (or services, environments, experiences, etc." (Sanders & Stappers, 2014, p. 6). *Provotypes* at the other end of the spectrum, can be situated in a critical tradition where they "expose and embody tensions that surrounds a field of interest to support collaborative analysis and collaborative design explorations across stakeholders" (Boer & Donovan 2012, p.288).
In this paper we propose the concept of *enticatypes,* artefacts that are aligned to a Pragmatic philosophical tradition and sit 'between' prototypes and provotypes, where:

- The artefacts in the workshop were ends in themselves, they will not be reiterated to produce optimal designs destined for mass or batch production.

- They embody an *ongoing* research process without aiming to answer or give a plausible solution to a predefined problem (a brief), they are orientated to active 'ends-in-view' (Hickman, 1990).

- The knowledge that the researchers sought to embed in the artefacts is recognised as *situational*. Therefore the nature of the provisional artefacts created was specific to the workshop participants (i.e. we made craft artefacts to engage mainly with craft practitioners), with the aspiration this would broaden the depth of the enquiry.

The *enticatype* vessels

Prior to the workshop Vannucci and Marshall both produced new bodies of work . They were originally designed to fall into a bigger 'Future of Food Production' workshop (Vannucci et al, 2018) and therefore are related to the serving of food. This provides an element of coherence across the range work deployed in the workshop.

Vannucci and Marshall had significantly different levels of experience in using both digital and analog making technologies and both made vessels using a CNC (computer numerically controlled) milling machine in combination with handmade tools and techniques.

Vessels by Marshall: *Hand Thought* series

Marshall, as a practice based researcher, has been working in the area of digital craft for nearly twenty years. He recognises tools and techniques and their epistemic characteristics (Luscombe, 2017), not as neutral means to an end, but as active and constructive elements entangled in the creative making process (i.e. technologies are

Figure 1. Marshall's 'Hand Thought' series of CNC milled oak tableware (2018). From left to right: Small bowl 210x45mm; Japanese platter 230x120x40mm; Oval dish 370x260x60mm.

recognised as translational rather than reproductive). This position can be aligned with one of the tenants of craft practice; that work is borne out of a creative engagement with materials and processes.

Marshall made the set of oak tableware (Fig.1) with the conscious intention to create work that had ambiguous surface characteristics; combining and contrasting analogue and digital aesthetics, while using an entirely digital means of production. This was achieved by contrasting a seemingly hand carved top surface with an explicitly digitally generated and cut underside (Figs 7, 8).

Using some form of analogue input (i.e. hand drawing) was a key aspect to the project and technology was used that allows physical drawing to be captured directly in a vector format and used to generate toolpaths with no loss of fidelity/detail (Figs. 2a, b, c). The use of this novel approach created hybrid surfaces which are not easily categorized as definitively digital or analogue. In contrast, the underside surface of the pieces exploit and celebrate the software that generates toolpaths to create complex surface patterns and textures (Figs. 2d, e). Marshall's approach explicitly subverts the software's mission to create optimum toolpaths to efficiently reproduce CAD designs. For example, 'cheating' the software through mismatching settings with the actual tool shape and sizes used, a visual language can be created that is clearly digital in origin and is rooted, not in predetermined design work, but is born out of the mediation of the technologies (both hardware and software) used.

The proposition Marshall sought to embody in these 'finished' works was that, in order to engage an audience of craft and design practitioner-researchers in debates of potential concern/interest, there needed to be a commitment to the creation of physical work that displayed a good level of visual sophistication and resolution. This assumption will be returned to in the discussion and conclusion.

Figure 2a. Marshall using Anoto pen for analogue drawing.

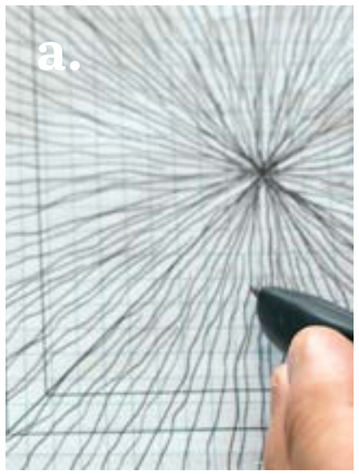


Figure 2b. Toolpaths generated from imported vector data.

Figure 2c. CNC milling of drawn lines.

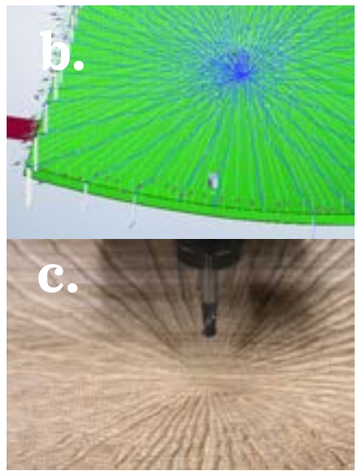
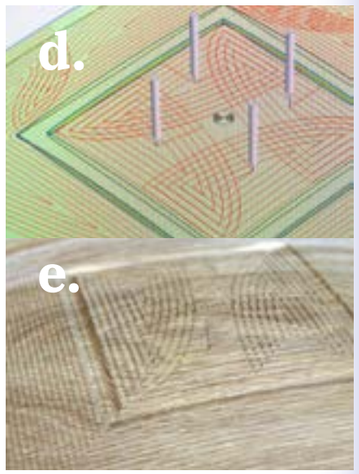


Figure 2d. Toolpaths generated from software parameters.

Figure 2e. Detail of milled surface.



Vessels by Vannucci: *Hand Fought* series

Vannucci had no previous experience of 3D modeling, digital making using a CNC machine, or hand carving. In contrast to Marshall, her proposition was that being a novice in both analogue and digital making, positioned her at a neutral starting point. The process of understanding the basics of both traditional and digital practices in parallel, through an active engagement with the making processes, enabled Vannucci to experience the possibilities and constraints that some machinery or handmade techniques afford, with the aspiration that the new knowledge acquired translated into the artefacts produced.

The three pieces of tableware that Vannucci produced explore the processes of both hand carving and using 3D modeling and the CNC machine for the first time. They represent the tension a novice experienced between marks and toolpaths that both the machine and the human hand are able to produce, in their imperfections. In these artefacts, making was conceived for Vannucci as the driving force behind the research question, which corresponds to the notion of 'knowing through making' (Mäkelä, 2006). What Cross describes as 'doing and making' (Cross, 1982) for Vannucci was prior to understanding the full potential of the digital hardware and software. Therefore, the vessels were sometimes purposefully left unpolished and unfinished with visible imperfections and/or mistakes.

Figure 3. Details from E's 'Hand Fought' series of CNC milled and hand-carved wood vessels(2018). From top down: a) Orbital plate (front and reverse) 16.5mm; b) Mountained dish 16x17.5mm

In contrast to Marshall's aspirations, the main goal with these 'open' artefacts was to provide a loose frame for the workshop discussions without producing beautiful 'finished' artefacts that were easily understood in their form and function. Instead, they reflect Vannucci's interpretation of

the dichotomies of the production processes explored: they address failures and shortcomings a maker encounters in digital making and hand making for the first time and they exalt the struggles and tensions experienced (e.g. Mountained plate, Fig. 3b and 10, presents two holes, results of miscalculations during the milling process). This raw unadulterated representation of the processes explored, was considered as a potential element that could encourage types of discussion where a finished polished artefact might not.

Workshop structure

The workshop was two hours long and was held in an academic context (University design school). It was principally developed by Vannucci and Marshall supported its delivery. The selection of participants (they will be referred to with the acronym P followed by a number: P1, P2...P8) was significantly based on the knowledge and experience some practitioners in the University have of established making processes associated with their fields of specialisation. Three participants had a background in metalworking (P6), furniture making (P7) and jewellery (P4) and the other participants were PhD students currently working in the field of practice based design research. This range of participants potentially had an investment in the values of making/crafting and/or designing as part of a professional, research and/or pedagogic practice.

The workshop was divided into three main phases. In the first two phases, the participants were divided into three groups of two or three. Initially they were given a deck of cards with attributes relating to craftsmanship and the organisers asked the groups to familiarize themselves with these attributes and the fuller description on the reverse of the card. The attributes were: authenticity, competence, creativity, innovation, interpretation, originality, talent, territory, tradition, training. They were taken from a book that attempts to define traditional attributes of crafting excellence (Cavalli, 2017). We chose to use these cards because we wanted to understand if traditional craftsmanship related values could be associated with digital making, and whether or not identifying differences would enable us to pin down opposing values attributed to digital crafts. However, we recognise that craft definitions are fraught with unresolved debate and therefore the attributes listed above are not intended to be exhaustive or conclusive.

In the second phase, each group was given a second deck of cards that represented six digital artefacts (Fig. 4a) selected from the book Digital Handmade: Craftsmanship and the New Industrial Revolution (Johnston, 2015). Each card presented on one side the picture of the artefact and on the reverse, how it was produced and its characteristics (Fig. 4b). Each group were asked to select from these six examples one that, in their opinion, embodied the highest number of craft attributes and one that embodied the least set of attributes (Fig. 4c). They were then asked to describe their choices and reasons.

Recognising that the nuanced assessment of the characteristics of a crafted artifact is most effective when it is directly experienced and handled, in the third and most important phase, we divided the participants into two groups and we assigned each three of our vessels, mixed randomly. In addition we provided some digital crafted objects, made using different technologies (i.e. a metalised 3D printed dish), and a small number of traditional

Figure 4a. Round table discussion attempting to associate digital craftworks with craft attributes.

Figure 4b. Reverse of one of the digital craft examples cards used in the workshop.

Figure 4c. An example of participant generated description of a hybrid artefact by Magrisso et al. (2018) : https://amitz.co/digitalJoints.html

Figure 5. Roundtable discussion of physical artefacts.

crafted vessels (i.e. hand thrown stoneware bowls). These were included to provide artefacts that can be associated with a wider spectrum of digital making and with established making practices.

The participants were asked to complete forms that had on one side the picture of the artefacts and on the reverse some space to give a title to the piece, describe it, suggest how it might have been made and list words or values that the vessels suggested to them. They could use previously mentioned attributes or new ones. The rationale for providing the participants with a wider selection of artefacts (not limited to the artefacts Vannucci and Marshall made) was that it would allow the participants to compare a wider spectrum of objects and their attributes and so help in defining and talking about their values and attributes at a more general level. After debate within the two groups (Fig. 5), their conclusions were talked over in a full roundtable discussion.

It can be noted that although there was a significant amount of writing based exercises within the workshop, their role was not to generate research data in itself, but to stimulate discussion. All conversations in both group and roundtable sessions were recorded. Transcriptions of these were used as the principal data source.

Reflections on workshop activities

In phases one and two the selection of artefacts on the cards generated a lot of debate around how the artefacts were made and the techniques that were used to make them. However, the participants found it difficult to associate the value cards with the artefacts, in all three phases (both the ones in the pictures and Vannucci and Marshall's tangible vessels). Therefore, they often drifted away from the attributes cards and most of the first two phases of the workshop became a free, open debate on the artefacts presented and on the perception the participants had of these artefacts. Participants P6, P7 and P8, clearly had extensive first hand knowledge and experience of established making processes. In addition, they clearly had some knowledge of digital processes, but whether this was first hand was less easy to ascertain. Within this group there was a shared attitude of *preserving* the value of the methods they knew well from their own practices. There was a reticence in considering the possible opportunities that other digital methods, that they perhaps have less ownership over, may provide. Both in terms of alternatives/extensions/augmentations of the practices that existed before the development of this toolset. This broad position manifested itself through a range of intertwined discussions, the most relevant of which we have separated out below.

Novelty in contrast to originality

A thought that was commonly shared by participants was that digital craftsmanship rarely seems to push the boundaries of what was considered *original* or *innovative*, and that it was merely *novel*. If certain production processes (i.e. 3d printing) were not considered as a central element in the physical requirements of a final artefact, the participants discounted the artefact from the start. Using a specific technique to add new aesthetic characteristics to the final outcome did not seem enough to consider something original. Comments such as: *"It is only a new aesthetic"* P1 or *"It is not even a nice looking thing"* P2 often come up in the discussions (referring to Solar Sintered bowl by Kayser (2011) and Digital Joinery for Hybrid Carpentry by Magrisso et al. (2018) Fig. 4c).

Authenticity as a mark of respect for tradition

One of the major concerns was that most of the artefacts presented would not have even needed digital technology in the production phase and could have been produced by analogue technologies: *"none of these things need to use technology"* (P4). Therefore, the ability of some artisans to bring together traditional and digital techniques, was not always considered by the participants as something unique and valuable. The shared opinion seemed to lie in the question: *"unless it is essential to the process of making itself, why would you use digital technologies?*" (P1). Where technology is not needed because there is already a traditional technique to achieve a specific pattern or form, the participants showed resistance towards the artefacts. P4 stated that digital manufacturing seemed to him as something *"ignoring tradition, rather than extending tradition"*. His main argument was that traditional makers know conventions and there is a reason why things are the way they are and generally these are perfectly logical reasons. The impression that digital makers drop into craft or manufacture without bothering to learn all the conventions first, was pointed out: *"They probably think those are boring things"* (P4). The majority of participants agreed that this perceived attitude of those that use digital techniques, somehow makes it harder for them to assess digital artefacts as crafted artefacts. When those artefacts are shown to those who actively use and know perfectly the conventions that lie behind certain techniques, they will immediately dismiss or diminish their attempt to present something new. P4 continues: *"If you show these attempts of hybrid processes to most of the manufacturing technicians, they will deride about this because they would probably be able to make something better.. as they know their machines inside out. An educated craftsperson will be different from a craftsperson that did an apprenticeship, which will be different to an amateur hobbyist. Many of these objects say: look at me [referring to the authors of the artefacts on the cards]. Not really at the work and its own merits".*

Control as a measure of competence and competence as a measure of skill

The idea that *control* over the process of making manifests a preconceived outcome appeared to play a significant part in validating an artefact for the participants, consequently *intention* seemed an important measure to establish the value of a piece. *"Here there is a certain amount of roughness that suggests that they have never done it before",* said P6 (discussing the sand bowl made by Kaysers' Solar Synter (2011)). From the description on the card it was unclear to the participants whether or not the roughness was intentional. And consequently, whether or not the artisan drew on previous experience and still decided to leave it that way, or if he had just *never done it before*, which for P6 was the probable option: *"We don't know if this was a criterion the maker had when doing it, but to me it seems the author needs more training to get competence (...) at this point he is doing badly what a computer can do".*

These opinions suggest that participants would have appreciated imperfection more if they had known that it was intentional. Which again suggests a degree of instrumentalism when considering the role of digital technologies, where technology is seen as an instrument that is designed to give predetermined outputs: *"An indication of control is important, and this connects to the need for training as a measure of craftsmanship, even more than the representation of skill. Skill is important but without intention it is difficult to measure or judge. Skill plus intention means making something and making it look flawless, no matter how many imperfections were hidden there, you have to look at the craft and not even notice them, they cannot stand out in such an obvious way"* (P7).

It became clear that the participants were seduced by some artefacts more than others and P4 poked the group with a provocative question: *"Are we just being seduced by something that is just made properly?"*. He seemed to be reflecting on the reasoning behind his own artefact choices: *"I am picking this [card of an artefact] because it is shiny, nothing more"* (referring to *Centric Representation* and *Parametric Representation (x+y)* by Peter Musson: http://silverspeaks.co.uk/makers/peter-musson/).

Discussion: workshop limitations and key themes

We recognise some relevant limitations in how the workshop developed and in how the debate evolved among our participants. We briefly describe these here and then move on to unpack the themes found.
It is perhaps unsurprising that when engaging with a group of makers the concentration of discussion was on the way artefacts had been made. It is again unsurprising that technologies and processes were in the forefront of the participants' minds. However, what was unexpected, was the predominance of an instrumentalist perspective when considering the way in which technologies impact on us and what we make. This was exemplified through considerable focus on issues of utility, effectiveness and efficiency, and with a significance given to intentionality.

An instrumentalist view of technology

Instrumentalism (Heidegger, 1977) has a disinclination to recognise the impacts and values attendant to technology use beyond its ability to carry out tasks (goals/intentions); being a passive *means* to a predetermined *end*. In doing so, it limits the scope of discussions that seek to uncover significances beyond the practical.
Within the workshop there was a shared underlying belief between participants that digital processes need to be better or more effective at a predominantly procedural level. As P6 states: *"there is no point in doing something digitally that already exists unless it can be done more cheaply and effectively than a previous method".* Such views seem to reduce the possibility of noticing, considering or appreciatiating a broader set of aesthetic outcomes that are not measured against pre-existing criteria. Although there was some recognition that Marshall's Oval dish (see Fig. 1) could be associated with craft attributes as 'skill, innovation, originality and aesthetically interesting' (descriptors stemming from Cavalli and the cards used in phase one), broadly there was little concession that a maker might want to use digital tools for the pleasure of their craft or for the particular aesthetics that a process may give.

Figure 6. Vannucci's Orbital Plate

Figure 7.(right) Underside of Marshall's Oval dish

Mapping craft values

Mapping a wide range of craftsmanship values, onto digital artefacts, had limited success within the workshop. From the selection of values presented (i.e. authenticity, competence, creativity, innovation, interpretation, originality, talent, territory, tradition, training), competence as a measure of skill, training as a prerequisite to competence, innovation in contrast to novelty, and authenticity as a mark of respect for tradition, were the attributes the practitioners mostly discussed, both from a positive and negative perspective. As the participants mostly shared a common language of making, because they came from similar disciplines, backgrounds and working institutions, they perhaps shared a common set of values and they had to differentiate themselves and their practices from the artefacts presented. In other words, considering digital approaches as something that could be considered as inventive or explorative would have automatically challenged the main cult values (Mead, 1923) of the practitioners. Stacey explains Meads' idea of cult values as: "People have a tendency to individualise and idealise a collective and treat it as if it had overriding motives or values, amounting to processes in which the collection constitutes a 'cult'' (Stacey, 2011, p. 376). Debating values associated with functionalism, usefulness, utility and practicality seemed easier to talk through than values such as inventiveness, innovation, exploration or recognising any aspects that were boundary-challenging or seeking to extend their existing practice. We recognise from our experience of the workshop that when you seek to explore and interrogate values that can be tracked across the broad spectrum of making, by whom they are questioned, is obviously an essential part of the equation.

The nature of examples presented and authored enticatypes

The nature of the artefacts presented in phase one and two were mainly explorative research orientated works seeking to embody originality, novelty and testing boundaries, rather than works made with the aim to incrementally develop processes, or create greater efficiency in the production. These choices did not create the hoped outcome in the discussions (i.e. debate across the spectrum of craft values). And as raised earlier, when the physical vessels were discussed in the third phase of the workshop, it became increasingly clear throughout the whole workshop discussion there was an inclination towards instrumentalism.

In the first phase of the workshop some participants seemed to acknowledge, with a touch of self-criticism, two interesting points: that they might be seduced by artefacts that are 'made properly' (which was one of the aspirations for the approach that Marshall took when creating his body of work). Thus, when they considered the physical vessels, the ability of the experienced makers to quickly assess whether things are 'made properly' and the level of experience (training and skill) that is required to make them, became the major criteria of judgement. For this reason Vannucci's pieces were quickly dismissed. This limited the discussion from the start and showed how the intention of leaving the objects as open and unfinished as possible, did not create a constructive space for wider exploration of the themes within this specific group of participants. The vessels did not reflect enough productive skills to be taken into consideration; they seemed too far away from displaying traditional and established qualities of workmanship in order to entice conversation (i.e. be enticatypes) or be considered

Figure 8. The top and underside of Marshall's Small dish.

finished crafted objects (which they were not intended to be). Conversely, the Marshall's vessels were not universally successful in driving forward conversations across the breadth and depth of craftsmanship values either. Their appearance suggested digital craftsmanship processes of manufacturing, thus the nuances in the ways in which the digital and analogue techniques interplayed within the making process, was not explicit enough within the visual characteristics of the final objects to entice discussion either. On one side experienced maker's vessels represent an answer to the particular research question on digital and handmade dichotomies and values and are an example of the ambiguities that can exist between digital craftsmanship and hand making qualities; on the other side the novices' vessels represent an argumentation of the research question itself, they represent sometimes the failure, sometimes the imperfections and the trials of a process that a craftsman might encounter through his/her developing practice.

On reflection, we must consider whether or not the instrumental inclination was the result of the workshop design and its focus on artefacts as isolated uncontextualized objects from the narrative and research ambition. The intention of this approach was to reduce biases and create an 'open' field for discussion. However, this was not borne out when working with this group of practitioners. When talking to craftspeople (and perhaps broader audiences) through crafted objects, maybe an artefact needs to communicate both the stories behind it and the research context in which it plays a role, to fully address its potential meaning and value. As Sanders and Strappers articulate:

"We really cannot separate making from telling and enacting. We have seen in practice that people make artefacts and then readily share their stories about what they made or they naturally demonstrate how they would use the artefact (if it is intended to be a representation of something concrete). Taken in isolation, the artefact may say very little or remain highly ambiguous." (2012)

Conclusion

The critique we have provided in this paper on the nature of our workshop is not intended to be a critique of the of the participants' responses and the values that they chose to promote. It is more focused on the aim of understanding how we might better create artefacts and activities to explore the tension between the digital and the analogue (handmade) through crafted objects more broadly.

We proposed the use of *enticatypes*, crafted artefacts that could entice conversation with a very specific audience to investigate craftsmanship values. This first workshop has revealed some interesting insights into the attributes that practitioners bring to bear when interrogating artefacts, but was limited in the range and depth of discussion we achieved. Our first iteration of *enticaptypes* did not entice as broad ranges of debates as we may have wished. In this workshop context, we realised that in order to talk about craftsmanship within crafts communities, the challenge is to create artefacts and activities that facilitate discussions that move beyond the instrumental. There are theoretical frames that can provide a different lens on debates concerning technological mediation and these provide alternative perspectives on values systems. We would argue that a Pragmatic understanding of technology provides such frame. It recognises that goals,

intentions, are active and mutable through any process (including making an artefact), and that technologies are not value neutral instruments but as Dewey claimed, they frame our engagement with the world, hence are laden with values (Hickman, 1990).

From the lessons learned we tentatively propose some aspects that could be taken into consideration in future iterations of *enticatypes* and workshop structures. These include:

- Finding forms of aesthetic and material expression that are enticing by being 'open' without being considered as unfinished, or resolved without being considered 'closed' (i.e. finding a balance between a finished artefact that ends up being appreciated without further inquiry and an unpolished artefact that is mistaken for a scrap bin piece!).

-Providing an accompanying narrative of motivation and process.

-Using explicit activities to link material aspects of the artefacts to concepts that move beyond instrumental aspects of production (the why and so what, not just the how).

-Finding a set of participants who span the spectrum of skill and making in different ways.

-Introducing making activities as a mode of interrogation to work in parallel with and aid discussion.

-Getting people to bring things that they have made into the discussion in order to generate a better ground to talk through artefacts and values, and increase participatory inclusion.

We would argue that this work is of relevance for the RtD community, in which *making as a way of thinking* is a valued approach to knowledge acquisition. We think this paper provides an example on how artefacts embodying ongoing research (i.e. they are not ends in themselves, but are part of a wider process), can seek to entice conversations around specific topics with specific audiences.

For future developments of the *enticatypes* we seek to redo the workshop with different participants following the improvements suggested above in order to explore how a different audience might respond to the same artefacts. Bearing in mind that developing a better workshop structure might help enhance the characteristics of the *enticatypes* and their nature, form and scope, we aim to understand how much of a suitable narrative is needed to better explain contextual materials without biasing or limiting the conversation.

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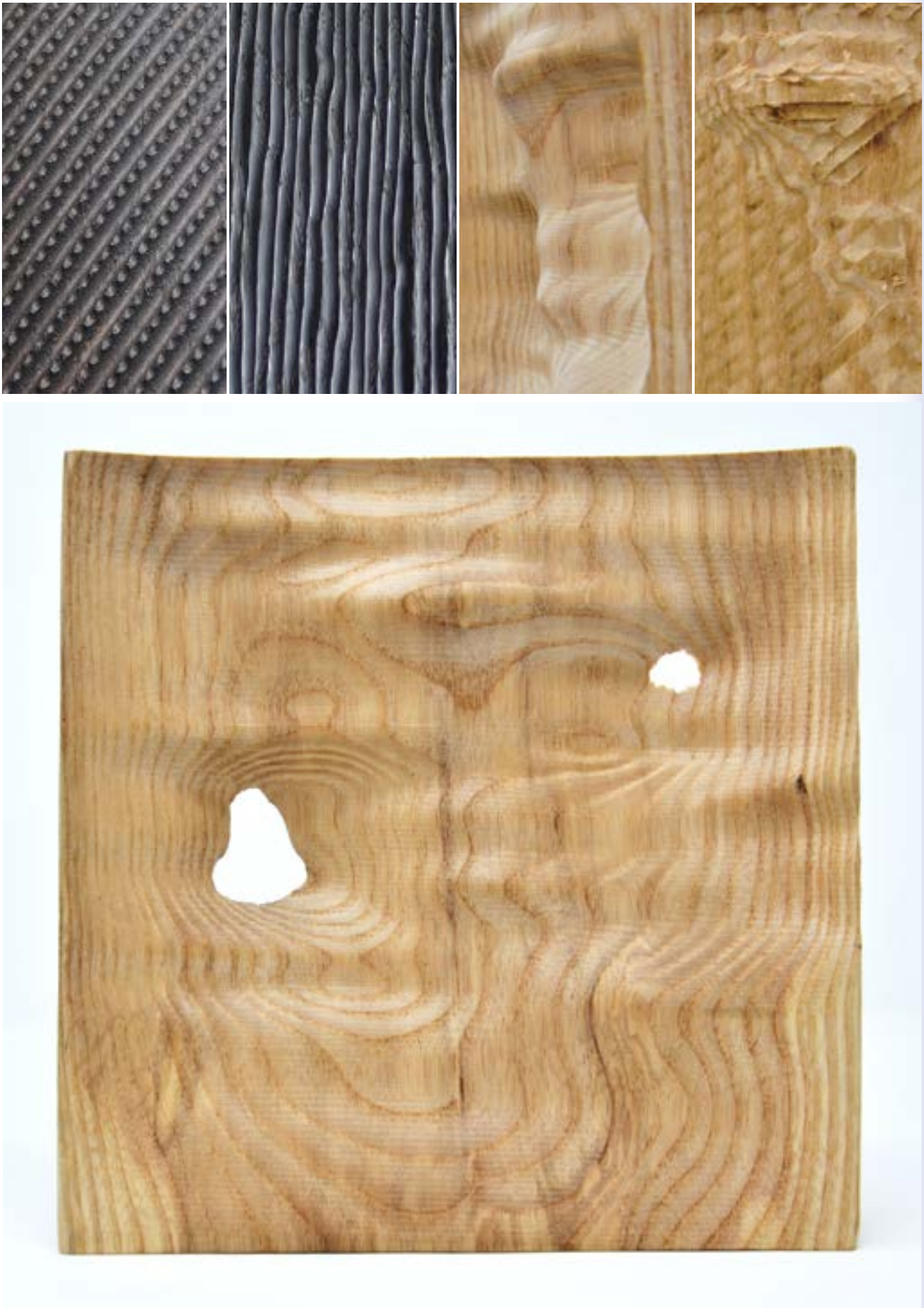

Figure 9. (From Left to right) Details of Marshalls's Japanese Platter and Vannucci's Mountained dish both top and underside

Figure 10. Vannucci's Mountained Dish, top view